Brentwood Boulevard Specific Plan

SCH# 2007082136

Recirculated Draft Environmental Impact Report

Volume II of III
Appendices D-F

Prepared for
The City of Brentwood

October 2011

Prepared by

RANEY
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APPENDIX D

Traffic Impact Analysis

Brentwood Boulevard Specific Plan
Brentwood, California

April 11th, 2008

Prepared for:

The City of Brentwood, California

Prepared by:

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EXECUTIVE SUMMARY

This report documents the results of a traffic impact analysis completed for the Brentwood Boulevard Specific Plan (the "proposed project" or "project"), which consists of approximately 396 acres located along the Brentwood Boulevard corridor in the City of Brentwood, California. The purpose of this impact analysis is to identify potential environmental impacts to transportation facilities as required by the California Environmental Quality Act (CEQA).

The following intersections, listed with existing traffic control, are included in this traffic impact analysis:

1. Brentwood Boulevard @ Delta Road (Two-Way Stop Control)
2. Delta Road @ Sellers Avenue (All-Way Stop Control)
3. Brentwood Boulevard @ E. Sims Road (Two-Way Stop Control)
4. Brentwood Boulevard @ Lone Tree Way (South) (Signal)
5. Arroyo Seco Road @ Lone Tree Way (Two-Way Stop Control)
6. Brentwood Boulevard @ Sunrise Drive (Two-Way Stop Control)
7. Brentwood Boulevard @ Gregory Lane (Two-Way Stop Control)
8. Brentwood Boulevard @ Hanson Lane (Two-Way Stop Control)
9. Brentwood Boulevard @ Homecoming Way (Two-Way Stop Control)
10. Brentwood Boulevard @ Grant Street/Sunset Road (South) (Signal)
11. Brentwood Boulevard @ Sunset Court (Two-Way Stop Control)
12. Brentwood Boulevard @ Havenwood Avenue (Two-Way Stop Control)
13. Brentwood Boulevard @ Applewood Common (Signal)
14. Brentwood Boulevard @ Sand Creek Road (Signal)
15. Brentwood Boulevard @ Technology Way (South) (Signal)
16. Brentwood Boulevard @ Nancy Street (South) (Signal)
17. Brentwood Boulevard @ Village Drive (Two-Way Stop Control)
18. Brentwood Boulevard @ Central Boulevard/Sycamore Avenue (South) (Signal)
20. Second Street @ Central Street (Signal)
21. Central Boulevard @ Walnut Boulevard (Signal)
22. Brentwood Boulevard @ Pine Street (Two-Way Stop Control)
23. Brentwood Boulevard @ Maple Street (Two-Way Stop Control)
24. Brentwood Boulevard @ Oak Street (Signal)
25. Oak Street @ Walnut Boulevard (Signal)
26. Brentwood Boulevard @ Second Street (Signal)
27. Brentwood Boulevard @ Chestnut Street (Two-Way Stop Control)
28. Brentwood Boulevard @ Balfour Road (Signal)
29. Sellers Avenue @ Sunset Road (All-Way Stop Control)

The following roadway segments are also included in this traffic impact analysis:

1. Brentwood Boulevard between E. Sims Road and Delta Road
2. Brentwood Boulevard between Grant Street/Sunset Road and Sunset Court
3. Brentwood Boulevard between Central Boulevard and Spruce Street
4. Brentwood Boulevard between Oak Avenue and Pine Avenue
5. Delta Road west of Brentwood Boulevard
6. Lone Tree Way west of Brentwood Boulevard
7. Sunset Road east of Brentwood Boulevard
8. Central Boulevard west of Brentwood Boulevard
9. Grant Street west of Brentwood Boulevard
10. Sycamore Avenue east of Brentwood Boulevard

The level of service analysis was conducted for the study intersections for both weekday AM and PM peak-hours for the following scenarios:

A. Existing (2007) Conditions
B. Existing plus Approved Projects Conditions
C. Existing plus Approved Projects plus Proposed Project Conditions
D. Cumulative (2030) Conditions
E. Cumulative plus Proposed Project Conditions

Significant findings of this study include:

- The proposed project is expected to generate new 31,202 daily trips, including 3,704 new AM peak-hour trips and 4,072 new PM peak-hour trips.

- The addition of the Proposed Project to the Existing plus Approved Projects Conditions results in a significant impact at fourteen study intersections and one study roadway segment. These impacts can be mitigated to be ***less than significant.***

- The addition of the Proposed Project to the Cumulative Conditions does not result in any significant impacts.

- The addition of the Proposed Project to Existing plus Approved Projects and Cumulative Conditions is not expected to result in any significant impacts to bicycle, pedestrian, or transit facilities.

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POTW – Publicly Owned Treatment Works
PPM – Parts Per Million
PS – Pump Station
PSIG – Pounds Per Square Inch Gauge
RBWTP – Randall-Bold Water Treatment Plant
RCRA – Resource Conservation and Recovery Act
RMPP – Risk Management and Prevention Plan
ROG – Reactive Organic Gases
ROW – Right-of-Way
RPS – Renewable Portfolio Standard
SB – Senate Bill
SCH – State Clearinghouse
SDWA – Safe Water Drinking Act
SEL – Sound Exposure Level
SHPO – State Historic Preservation Office
SJVAB – San Joaquin Valley Air Basin
SLIC – Spills, Leaks, Investigations, and Cleanup
SOI – Sphere of Influence
SO_X – Sulfates
SR – State Route
TAC – Toxic Air Contaminants
TAZ – Traffic Analysis Zone
TDT – Tri Delta Transit
TSO – Traffic Service Objective
TSS – Total Suspended Solids
TWSC – Two-Way Stop-Controlled
UBC – Uniform Building Code
UPRR – Union Pacific Railroad
USACE – United States Army Corps of Engineers
USEPA – United States Environmental Protection Agency
UST – Underground Storage Tank
UWMP – Urban Water Management Plan
WWTP – Wastewater Treatment Plant

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APPENDICES

INTRODUCTION

This report documents the results of a traffic impact analysis completed for the Brentwood Boulevard Specific Plan (the "proposed project" or "project"), which consists of approximately 396 acres located along the Brentwood Boulevard corridor in the City of Brentwood, California. The purpose of this impact analysis is to identify potential environmental impacts to transportation facilities as required by the California Environmental Quality Act (CEQA).

The remaining sections of this report document the proposed project, analysis methodologies, impacts and mitigation, and general study conclusions.

PROJECT DESCRIPTION

The proposed project consists of approximately 396 acres located along the Brentwood Boulevard corridor in the City of Brentwood. The project location is shown in Figure 1.

The following intersections, listed with existing traffic control, are included in this traffic impact analysis[1]:

1. Brentwood Boulevard @ Delta Road (Two-Way Stop Control)
2. Delta Road @ Sellers Avenue (All-Way Stop Control)
3. Brentwood Boulevard @ E. Sims Road (Two-Way Stop Control)
4. Brentwood Boulevard @ Lone Tree Way (South) (Signal)
5. Arroyo Seco Road @ Lone Tree Way (Two-Way Stop Control)
6. Brentwood Boulevard @ Sunrise Drive (Two-Way Stop Control)
7. Brentwood Boulevard @ Gregory Lane (Two-Way Stop Control)
8. Brentwood Boulevard @ Hanson Lane (Two-Way Stop Control)
9. Brentwood Boulevard @ Homecoming Way (Two-Way Stop Control)
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21. Central Boulevard @ Walnut Boulevard (Signal)
22. Brentwood Boulevard @ Pine Street (Two-Way Stop Control)
23. Brentwood Boulevard @ Maple Street (Two-Way Stop Control)
24. Brentwood Boulevard @ Oak Street (Signal)
25. Oak Street @ Walnut Boulevard (Signal)
26. Brentwood Boulevard @ Second Street (Signal)
27. Brentwood Boulevard @ Chestnut Street (Two-Way Stop Control)
28. Brentwood Boulevard @ Balfour Road (Signal)
29. Sellers Avenue @ Sunset Road (All-Way Stop Control)

[1] Per email from Winston Rhodes, City of Brentwood, May 21, 2007.

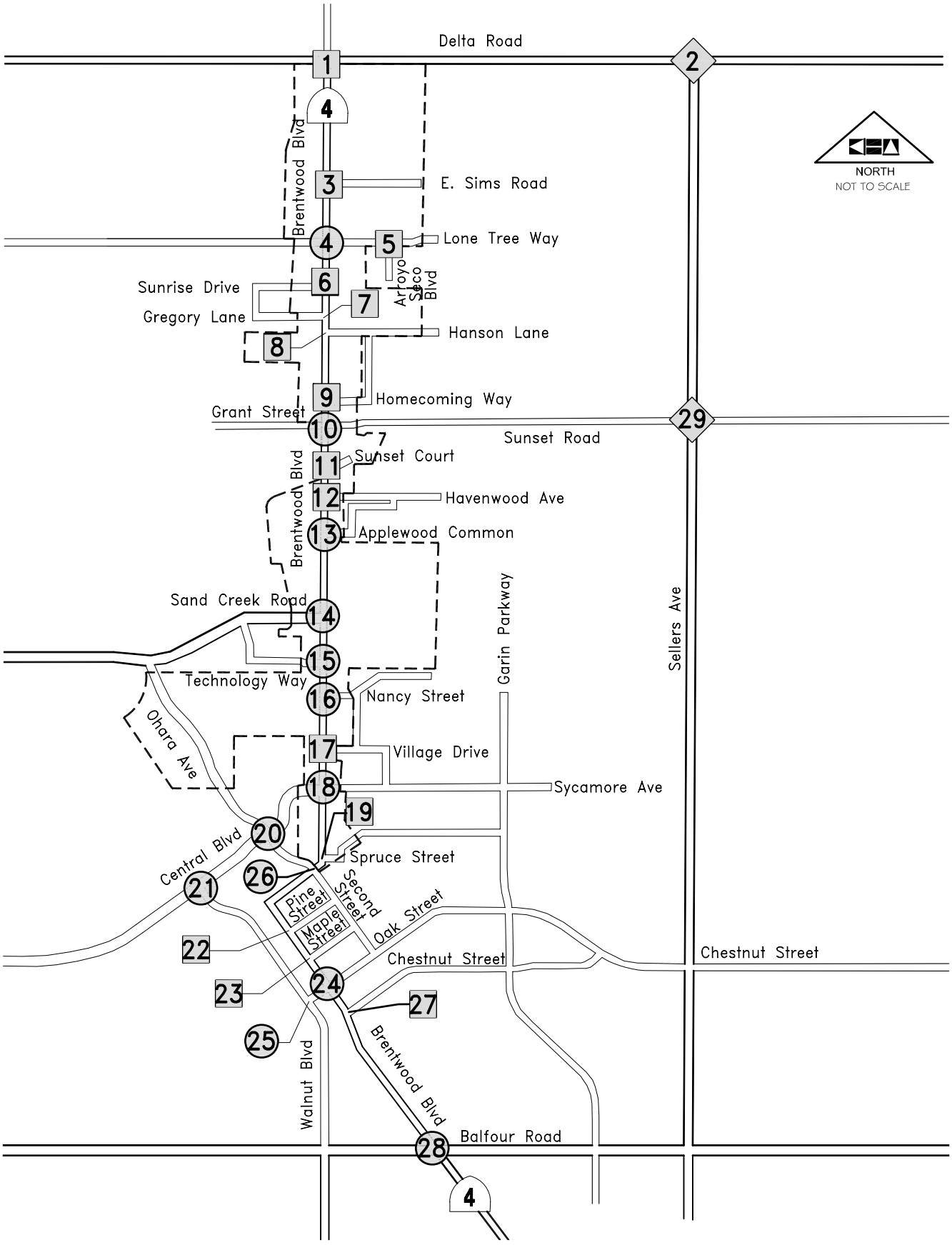

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FIGURE 1

PROJECT LOCATION AND STUDY INTERSECTIONS

BRENTWOOD BOULEVARD SPECIFIC PLAN
BRENTWOOD, CA

The following roadway segments are also included in this traffic impact analysis:

1. Brentwood Boulevard between E. Sims Road and Delta Road
2. Brentwood Boulevard between Grant Street/Sunset Road and Sunset Court
3. Brentwood Boulevard between Central Boulevard and Spruce Street
4. Brentwood Boulevard between Oak Avenue and Pine Avenue
5. Delta Road west of Brentwood Boulevard
6. Lone Tree Way west of Brentwood Boulevard
7. Sunset Road east of Brentwood Boulevard
8. Central Boulevard west of Brentwood Boulevard
9. Grant Street west of Brentwood Boulevard
10. Sycamore Avenue east of Brentwood Boulevard

Figure 2 illustrates the study intersections, existing traffic control, and existing lane configurations.

PROJECT AREA TRANSPORTATION FACILITIES

Roadways

The following are descriptions of the primary roadways in the vicinity of the project.

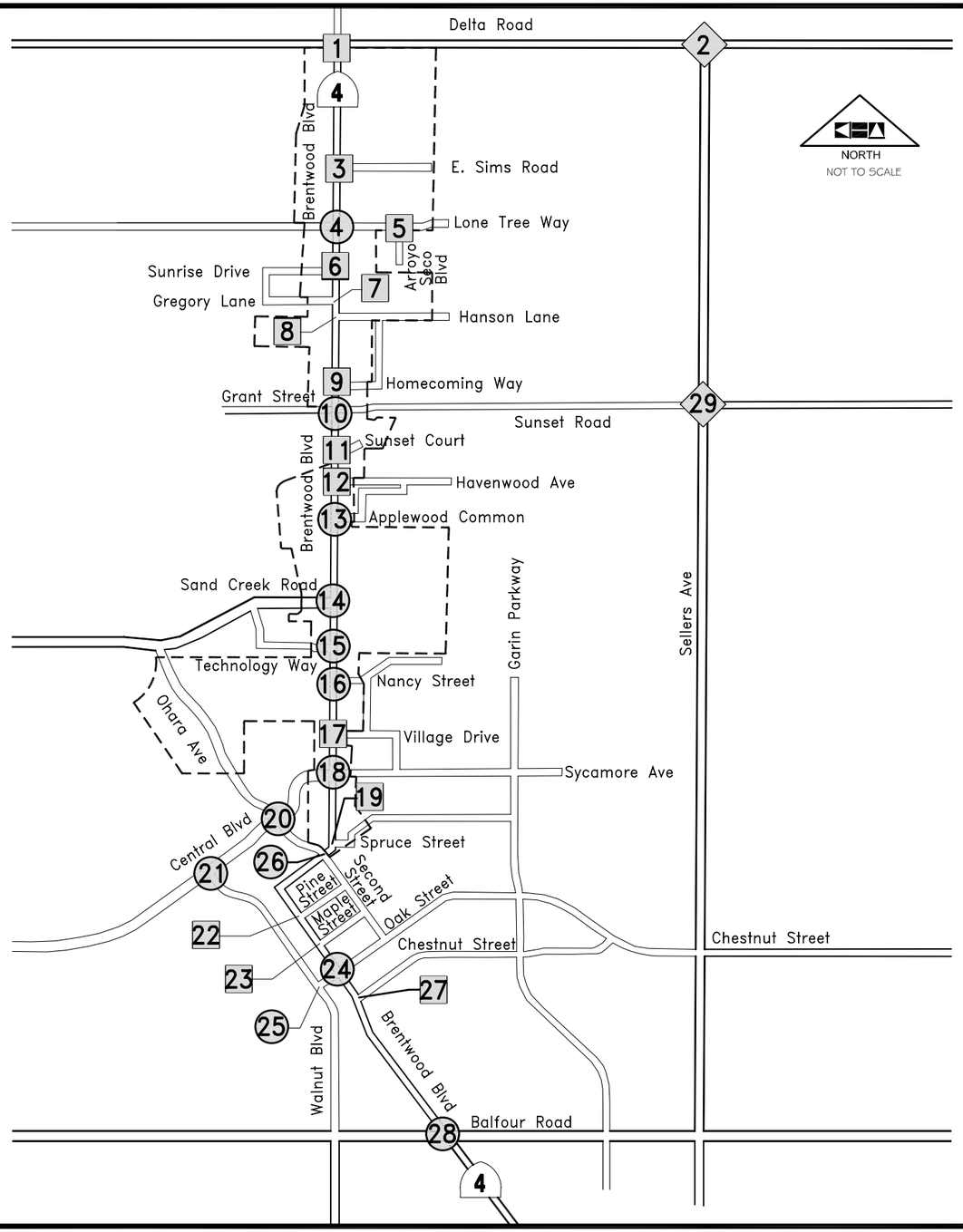
Brentwood Boulevard is a north-south arterial roadway which traverses through the project area. Within the City, Brentwood Boulevard is also designated as State Route 4 (SR-4) which is a State highway that provides connectivity between communities in the Sierra Nevada Mountains, the San Joaquin Valley, and the San Francisco Bay Area. As a part of SR-4, Brentwood Boulevard is a primary truck route through east Contra Costa County. Within the project area, Brentwood Boulevard is generally a two-lane roadway without paved shoulders or on-street parking. South of Applewood Common, there are a number of locations that have been widened to include four-lanes, sidewalks, a landscaped median, and left turn bays. The roadway is fronted by a large variety of commercial and industrial uses with numerous driveways to adjacent parcels. Within the general project area, Brentwood Boulevard currently serves approximately 20,000 vehicles per day[2] (vpd).

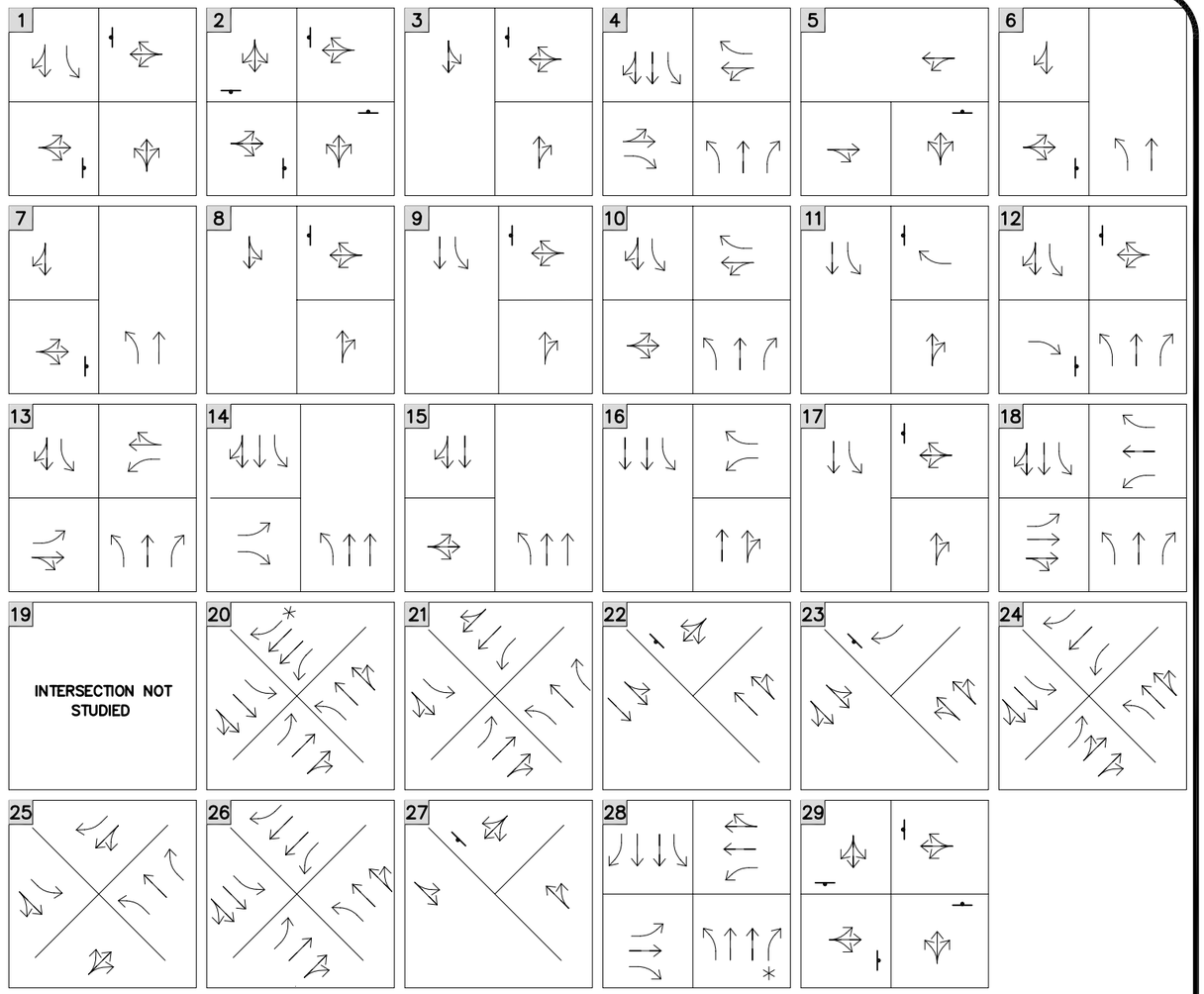
Sellers Avenue is a north-south rural collector roadway that parallels Brentwood Boulevard to the east. Sellers Avenue terminates at the Contra Costa Canal to the north and Marsh Creek Road to the south. Through the project area, this roadway accommodates approximately 5,000 vpd[3] and generally provides one travel lane in each direction.

Delta Road is an east-west collector roadway located immediately north end of the project area within the City of Oakley. Delta Road becomes Neroly Road west of Brentwood Boulevard (SR-4) and terminates at Holland Tract Road to the east. Delta Road accommodates approximately 4,200 vpd[4] east of Brentwood Boulevard with one travel lane in each direction.

Lone Tree Way is an arterial roadway west of Brentwood Boulevard located at the north end of the project area. Lone Tree Way runs north-south from SR-4 in Antioch to James Donlon Boulevard, where it then becomes an east-west roadway until it terminates just east of Brentwood Boulevard. This roadway provides regional connectivity from the project area to the City of Antioch and is fronted by, and provides direct access to, many commercial land uses. Through the project area, Lone Tree Way accommodates approximately 10,800 vpd[4] and is planned for widening to four lanes from O'Hara Avenue to Brentwood Boulevard.

[2] Caltrans Traffic and Vehicle Data Systems Unit, http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/2005all.htm.
[3] City of Brentwood, Traffic Volume Counts, http://www.ci.brentwood.ca.us/department/pw/engineering/traffic/trafficcalming.cfm#count.
[4] Kimley-Horn and Associates, Inc.





LEGEND

- 2-WAY STOP CONTROLLED STUDY INTERSECTION
- ALL-WAY STOP CONTROLLED STUDY INTERSECTION
- SIGNALIZED STUDY INTERSECTIONS
- FREE RIGHT TURN
- STOP SIGN
- PROJECT BOUNDARY

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FIGURE 2

EXISTING STUDY INTERSECTION GEOMETRY AND TRAFFIC CONTROL

BRENTWOOD BOULEVARD SPECIFIC PLAN
BRENTWOOD, CA

Sand Creek Road is an east-west collector roadway which connects the SR-4 Bypass to the west and Brentwood Boulevard to the east. Sand Creek Road accommodates approximately 8,100 vpd[5] within the project area while providing one travel lane in each direction. Sand Creek Road is planned to be extended from Brentwood Boulevard to Sellers Avenue. The City has a development agreement in place for the near-term construction of Sand Creek Road from Brentwood Boulevard to Garin Parkway.

Central Boulevard is an east-west collector roadway which extends from Apple Hill Drive (West) to the west and Brentwood Boulevard to the east, where it becomes Sycamore Avenue. West of Apple Hill Drive (East), Central Boulevard becomes a two lane local road. However, to the east, it is a four lane divided roadway which provides direct access to shopping centers and other commercial uses.

Balfour Road is an east-west arterial roadway located south of the project area. Balfour Road terminates at Deer Valley Road to the west and becomes Fallman Boulevard east of Bixler Road, providing access from downtown Brentwood to/from unincorporated areas within Contra Costa County. Balfour Road accommodates approximately 10,900 vpd[5] east of Brentwood Boulevard and approximately 30,100 vpd west of Brentwood Boulevard.

State Route 4 Bypass (Bypass) is a roadway construction project that will replace the existing State Route 4 from just south of the Main Street Interchange in the City of Antioch to the existing intersection with Marsh Creek Road. Phase 1 of the project is being constructed in three segments. Segment 1 extends from just east of the SR4/Hillcrest Avenue Interchange in the City of Antioch to Lone Tree Way and will consist of a 6-lane freeway between existing SR4 and the Laurel Road Interchange and a 4-lane freeway from Laurel Road to Lone Tree Way . Phase 1 of Segment 2 has been constructed as a 2-lane Expressway from Lone Tree Way to Balfour Road and will eventually be converted to a full freeway with interchanges at Sand Creek Road and Balfour Road . Segment 3 will extend from Balfour Road south to Marsh Creek Road as a 2-lane Expressway, then along Marsh Creek Road (East-West Connector) as a 2-lane conventional highway, connecting to existing SR4 (Byron Highway). The southerly limits of the project (now called the Vasco Road Extension) are from Marsh Creek Road to Vasco Road at Walnut Boulevard[6].

Other roadways addressed in this analysis (i.e. Gregory Lane, Nancy Street, etc.) are local roads that provide connectivity from Brentwood Boulevard to surrounding neighborhoods and/or other portions of the City.

Existing Bicycle and Pedestrian Facilities

The project area generally lacks pedestrian and bicycle facilities, especially in the northern portions along Brentwood Boulevard. In many locations, bicyclists and pedestrians must use the shoulder of the roadway, which varies in width. A notable exception is the portion of Brentwood Boulevard between Applewood Common and Woodfield Lane. This portion of the roadway is improved with Class II bike lanes and sidewalks. In addition, Class I bike trails maintained by East Bay Regional Park District exist along the Marsh Creek Trail and the East Bay Municipal Utility District's Mokelumne Aqueduct right-of-way.

Transit Facilities

Transit service in the City of Brentwood is provided by Tri-Delta Transit (TDT). Tri Delta Transit currently operates 6 local routes (383, 384, 385, 386, 391 & Dimes-A-ride) and 2 express commuter routes (300, DX) on weekdays and a single local route (393) on weekends that serve the City of Brentwood. Two of the six local routes are trunk line services that operate on the SR4/Brentwood Boulevard corridor through Brentwood[7]. Bus routes in the vicinity of the project are illustrated in Figure 3.

[5] City of Brentwood, Traffic Volume Counts, http://www.ci.brentwood.ca.us/department/pw/engineering/traffic/trafficcalming.cfm#count.

[6] SR4 Bypass Authority Project Information website. Available: http://www.sr4bypass.org/Information/Projectinfo_general.htm

[7] Email from Tom Harais to Kimley-Horn and Associates, November 20, 2007.

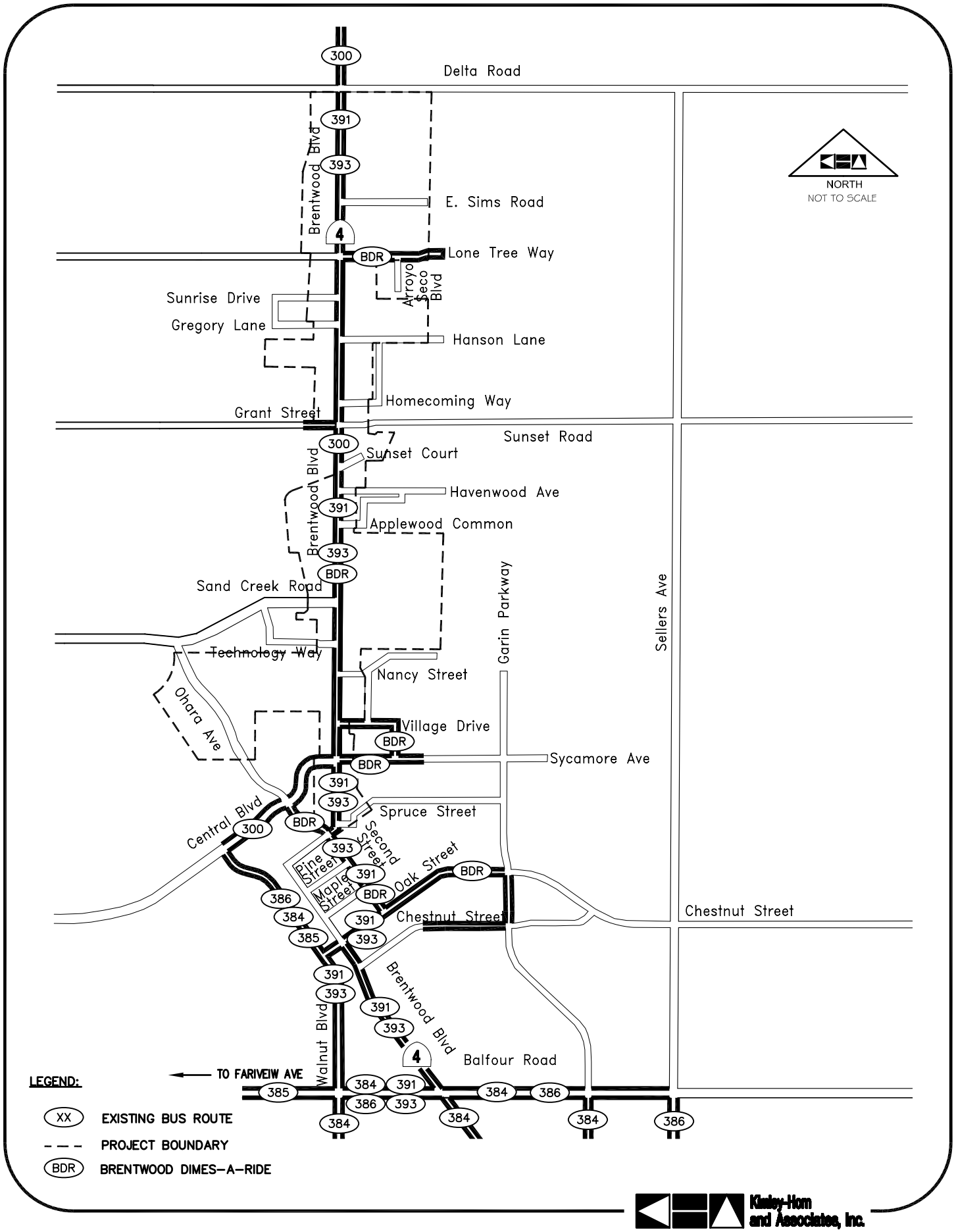


FIGURE 3

EXISTING TRANSIT SERVICE

BRENTWOOD BOULEVARD SPECIFIC PLAN

BRENTWOOD, CA

ASSESSMENT OF PROPOSED PROJECT

Proposed Project Trip Generation

The number of trips anticipated to be generated by the proposed project were derived using data included in *Trip Generation, 7th Edition*, and the *Trip Generation Handbook, Second Edition*, both published by the Institute of Transportation Engineers (ITE). ITE land uses were selected to best represent the land uses specified in the Brentwood Boulevard Specific Plan. Where applicable, the regression equation method was utilized for trip generation calculations per the guidelines recommended by ITE[8]. The anticipated trip generation for this project approved by the City[9] is shown in Table 1.

Table 1 – Proposed Project Trip Generation

ITE Land Use (Code)	Size	Total Daily Trips	AM Peak Hour					PM Peak Hour				
			Total Trips	IN		OUT		Total Trips	IN		OUT	
				%	Trips	%	Trips		%	Trips	%	Trips
General Light Industrial (110)	539.7 ksf	3,930	548	88%	482	12%	66	608	12%	73	88%	535
Single Family-Detached Housing (210)	421 DU	3,902	304	25%	76	75%	228	391	63%	246	37%	145
Apartment (220)	1,825 DU	11,119	898	20%	180	80%	718	1,021	65%	664	35%	357
City Park (411)	8.1 ac	13										
General Office Building (710)	1,940.7 ksf	13,089	2,011	88%	1,770	12%	241	2,252	17%	383	83%	1,869
Shopping Center (820)	381.4 ksf	16,212	349	61%	213	39%	136	1,515	48%	727	52%	788
Subtotal New Trips:		***48,264***	***4,111***		***2,721***		***1,390***	***5,788***		***2,093***		***3,695***
Internal Reduction[1] (PM, Daily)	14% 17%	-8,171						-796		-288		-508
Pass-By Reduction[1] (LU 820)	34%	-5,512	-119		-72		-46	-515		-247		-268
Alternate Mode Reduction	7%	-3,379	-288		-190		-97	-405		-147		-259
Net New External Trips:		***31,202***	***3,704***		***2,458***		***1,246***	***4,072***		***1,412***		***2,660***

Source: *Trip Generation, 7th Edition* , ITE.
[1] Based on methodology published in *Trip Generation Handbook, Second Edition* , ITE.

As shown in Table 1, the proposed project land uses are estimated to generate 31,202 total new daily trips with 3,704 new trips occurring during the AM peak-hour and 4,072 new trips occurring during the PM peak-hour.

Project Trip Distribution

The distribution of project generated traffic for Existing plus Proposed Project Conditions was developed based on Base Year (2000) output from the regional travel demand model provided by the Contra Costa Transportation Authority (CCTA), existing traffic data, and general knowledge of project area traffic patterns. The project trip distribution percentages were approved by the City[10] and are illustrated in Figure 4. The resulting AM and PM peak-hour traffic volumes attributed to the proposed project at the study area intersections are illustrated in Figure 5.

Project trips for the Cumulative Plus proposed Project conditions were distributed using future year (2030) output from the CCTA travel demand model. The model employs a methodology that matches trip generators and trip attractors over a wide region and includes the effects of the SR-4 Bypass.

[8] *Trip Generation Handbook, Second Edition*, ITE.
[9] Email from Winston Rhodes, City of Brentwood, October 9, 2007.
[10] Per email from Winston Rhodes, City of Brentwood, October 9, 2007.

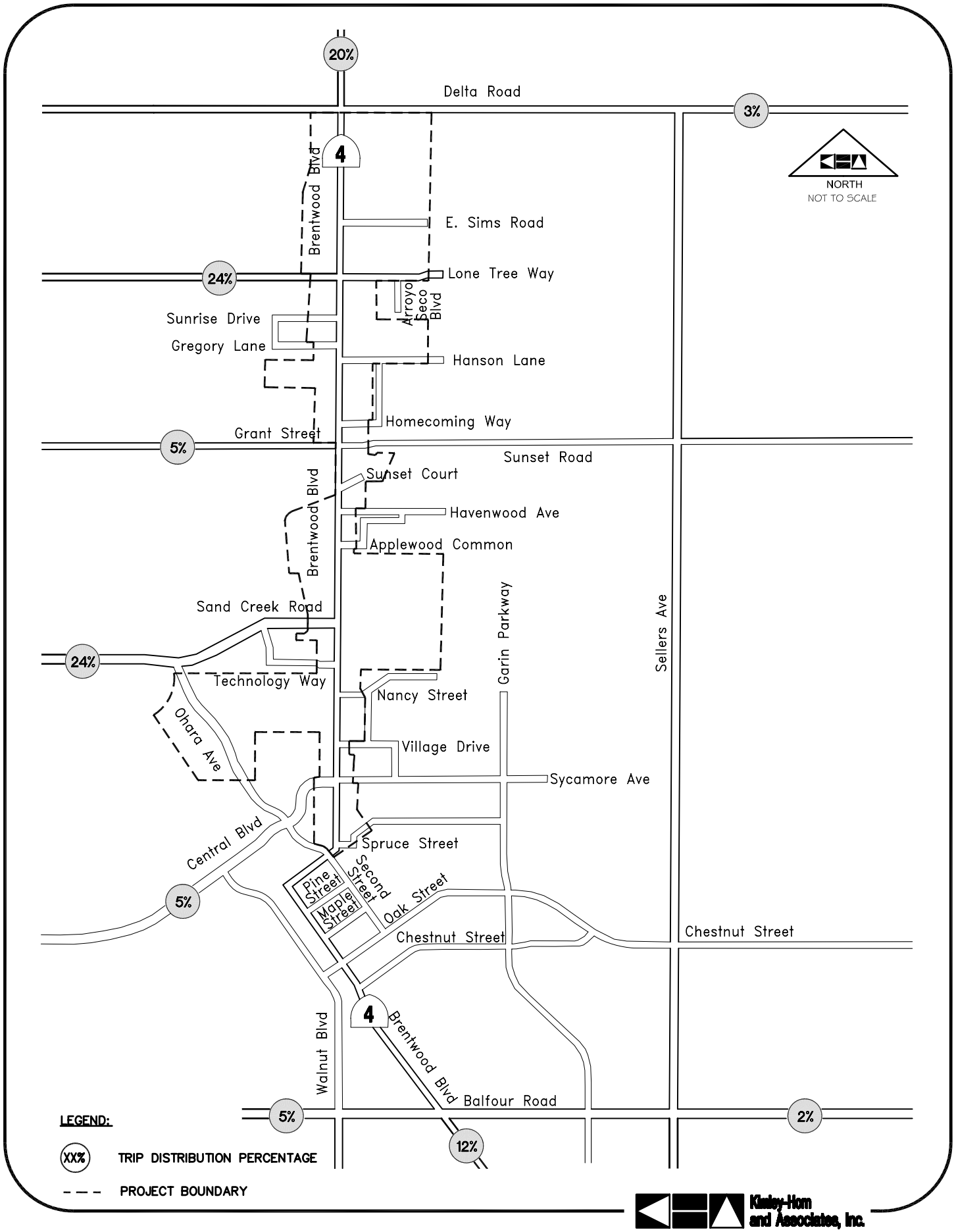
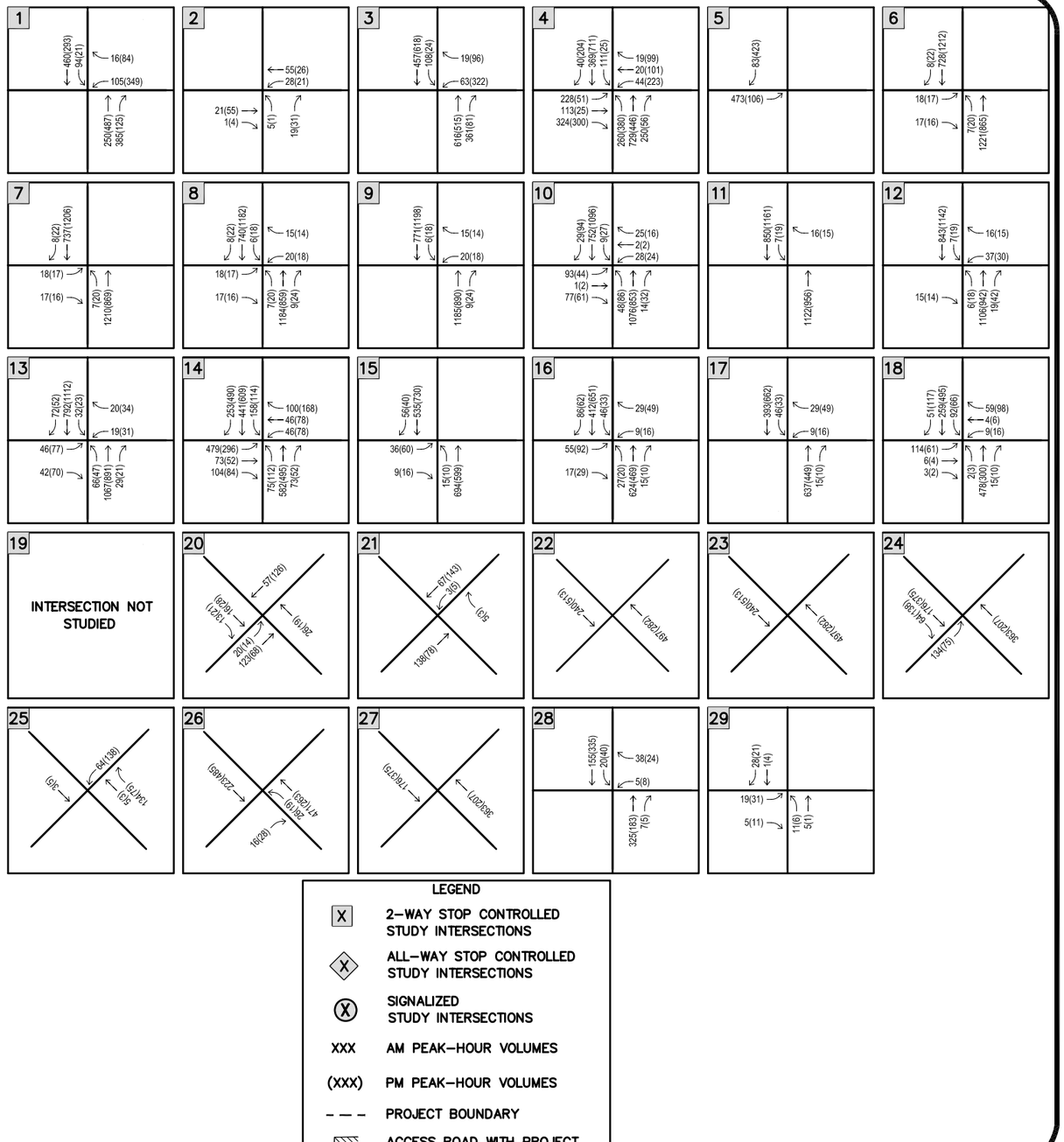


FIGURE 4

DISTRIBUTION FOR PROPOSED PROJECTS

BRENTWOOD BOULEVARD SPECIFIC PLAN
BRENTWOOD, CA



LEGEND

X	2-WAY STOP CONTROLLED STUDY INTERSECTIONS
X	ALL-WAY STOP CONTROLLED STUDY INTERSECTIONS
X	SIGNALIZED STUDY INTERSECTIONS
XXX	AM PEAK-HOUR VOLUMES
(XXX)	PM PEAK-HOUR VOLUMES
- - -	PROJECT BOUNDARY
	ACCESS ROAD WITH PROJECT

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FIGURE 5

PROPOSED PROJECT TRIP ASSIGNMENT

BRENTWOOD BOULEVARD SPECIFIC PLAN
BRENTWOOD, CA

TRAFFIC IMPACT ANALYSIS METHODOLOGY

Analysis of significant environmental impacts at intersections is based on the concept of Level of Service (LOS). The LOS of an intersection is a qualitative measure used to describe operational conditions. LOS ranges from A (best), which represents minimal delay, to F (worst), which represents heavy delay and a facility that is operating at or near its functional capacity.

Contra Costa County Measure C established a sales tax to be used to fund transportation improvements in Contra Costa County. The measure includes a growth management program and requires Contra Costa Transportation Authority (CCTA) to develop a comprehensive transportation plan and update it every other year. To receive a share of the sales tax generated by Measure C, local jurisdictions must adhere to the LOS standards that Measure C applies to local streets and roads. The Measure C standards are applied to streets and roads for which the jurisdictions are responsible. Each jurisdiction must take appropriate action to ensure that the LOS standards are met, including routes of regional significance. Designated regional routes include all the freeways and state highways, and the most significant arterials in Contra Costa County.

The CCTA classifies several roadways within or near the Project area as routes of regional significance. These routes include Brentwood Boulevard, Walnut Boulevard, Lone Tree Way, and Balfour Road[11]. As such, intersections along these routes require analysis utilizing Growth Management Program procedures outlined in the CCTA Technical Procedures, dated July 19, 2006. The CCTA Technical Procedures require the analysis of intersections based on the Intersection Capacity Utilization (ICU) methodology. The ICU methodology describes the operation of an intersection in terms of Level of Service (LOS) based on corresponding volume to capacity v/c ratio. Based on City of Brentwood and CCTA requirements, this traffic analysis was completed using the CCTALOS module within Traffix® software at signalized intersections, and the *Highway Capacity Manual* (HCM) module within Traffix® at unsignalized intersections. Table 2 presents LOS definitions for signalized intersection as defined by the ICU methodology.

The HCM includes procedures for analyzing two-way stop controlled (TWSC) and all-way stop controlled (AWSC). The TWSC procedure defines LOS as a function of average control delay for each minor street approach movement. Conversely, the AWSC procedure defines LOS as a function of average control delay with each intersection approach analyzed independently. Table 2 presents LOS for unsignalized intersections as defined by the HCM.

Roadway segment LOS definitions for two-lane and multilane highways are based on the HCM. Table 3 and presents the applicable roadway segment LOS definitions for two-lane and multilane highway facilities.

Peak-hour traffic signal warrant evaluation is consistent with the peak-hour volume warrant (Warrant 3B) methodologies noted in Section 4C of the *California Manual on Uniform Traffic Control Devices (CMUTCD)*, September 26, 2006.

The LOS analysis was conducted for the study intersections and roadway segments for weekday AM and PM peak-hours for the following scenarios:

A. Existing (2007) Conditions
B. Existing plus Approved Projects Conditions (listed below)
C. Existing plus Approved Projects plus Proposed Project Conditions
D. Cumulative (2030) Conditions
E. Cumulative plus Proposed Project Conditions

[11] *East County Action Plan*, Contra Costa Transportation Authority, June 29, 2000.

Table 2 - Intersection Level of Service Criteria

Level of Service	Description	**Signalized** (Intersection Volume to Capacity ratio, v/c)	**Unsignalized** (Average Control Delay per Vehicle, sec/veh.)
A	Free flow with no delays. Users are virtually unaffected by others in the traffic stream	≤ 0.6	≤ 10
B	Stable traffic. Traffic flows smoothly with few delays.	0.61 – 0.70	> 10 – 15
C	Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays.	0.71 – 0.80	> 15 – 25
D	Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours.	0.81 – 0.90	> 25 – 35
E	Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing.	0.91 – 1.00	> 35 – 50
F	Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing.	> 1.00	> 50
Sources: *Contra Costa Transportation Authority Technical Procedures 2006 and Transportation Research Board*, *Highway Capacity Manual 2000*, National Research Council, 2000.			

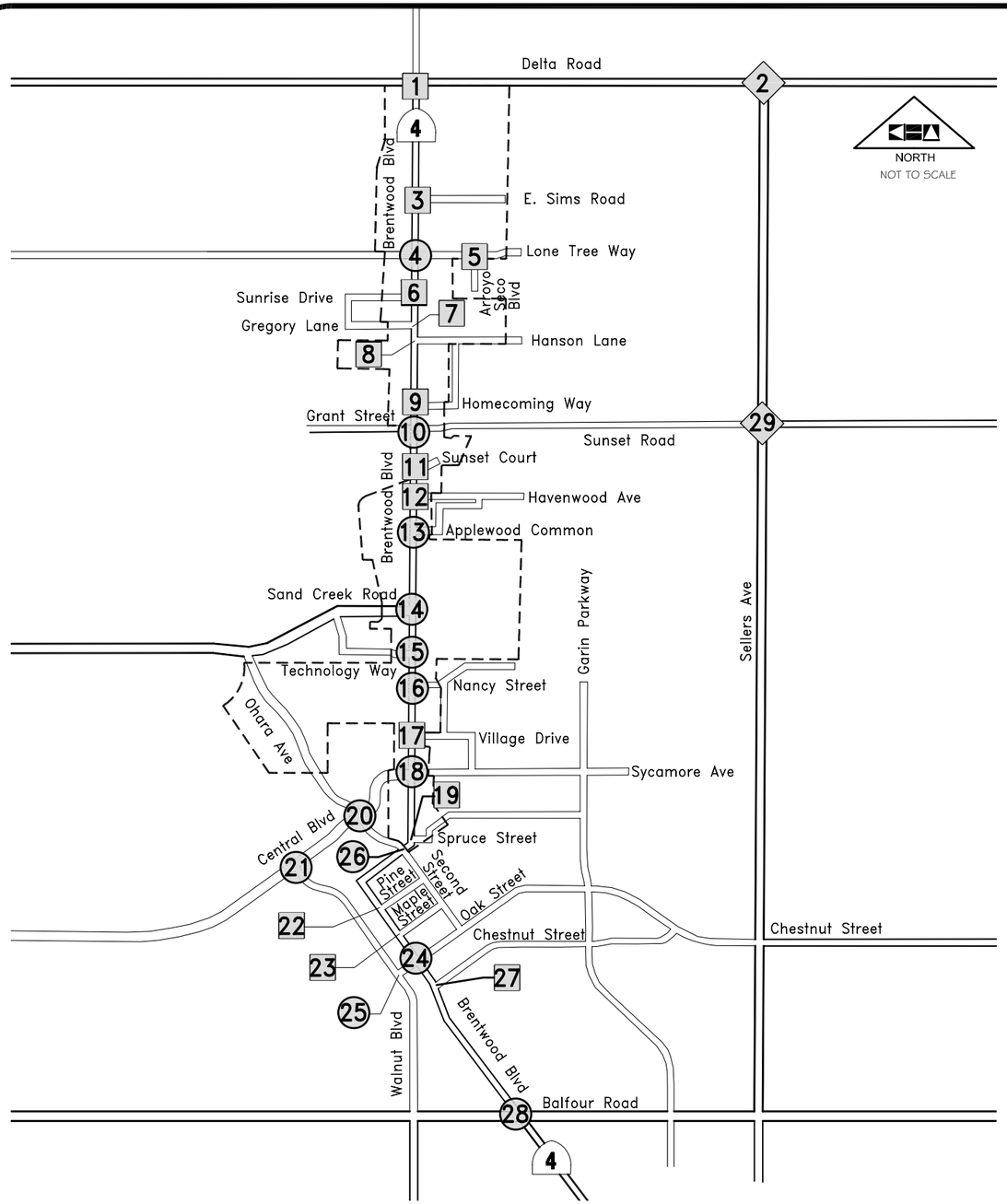
Table 3 – Two Lane Roadway Segment Level of Service Criteria

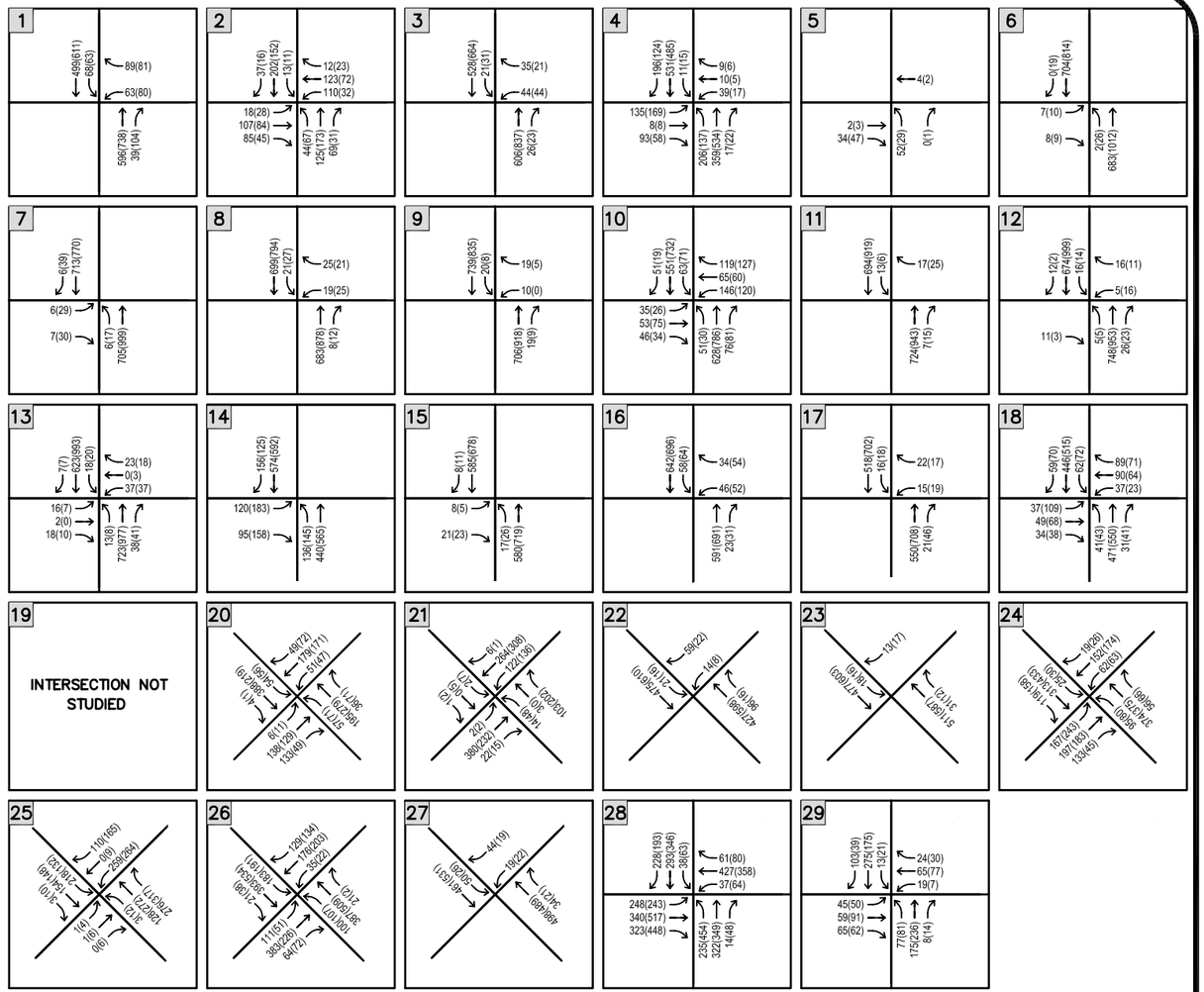
Facility Type	**Percent Time-Spent-Following (PTSF)**				
	A	**B**	**C**	**D**	**E**
2-Lane, Class II Highway	≤ 40	>40-55	>55-70	>70-85	>85
Multilane Highway	490	810	1170	1550	1900
Source: Highway Capacity Manual, 2000					

EXISTING CONDITIONS

Analysis of existing traffic conditions at the study intersections was based on peak-hour traffic counts conducted in May and June of 2007. These counts were conducted while local schools were in regular session. The weekday AM and PM peak-hour intersection turning movement traffic counts were conducted between the hours of 7 a.m. and 9 a.m., and 4 p.m., and 6 p.m., respectively. The existing peak-hour turn movement volumes are presented in Figure 6. Traffic count sheets are presented in Appendix A and the analysis worksheets for this scenario are provided in Appendix B.

Intersections
Table 4 presents the existing peak-hour intersection operating conditions and signal warrants for the study intersections. As indicated in Table 4, the study intersections operate from LOS A to LOS F during the AM and PM peak- hours.





LEGEND

X	2-WAY STOP CONTROLLED STUDY INTERSECTIONS
X	ALL-WAY STOP CONTROLLED STUDY INTERSECTIONS
X	SIGNALIZED STUDY INTERSECTIONS
XXX	AM PEAK-HOUR VOLUMES
(XXX)	PM PEAK-HOUR VOLUMES
- - -	PROJECT BOUNDARY

Kimley-Horn and Associates, Inc.

FIGURE 6

EXISTING PEAK-HOUR TRAFFIC VOLUMES

BRENTWOOD BOULEVARD SPECIFIC PLAN
BRENTWOOD, CA

Table 4 – Existing Intersection Levels of Service

#	Intersection	Traffic Control	AM Peak-Hour		PM Peak-Hour		Meets Signal Warrant[1]
			Delay (sec.) or V/C ratio*	LOS	Delay (sec.) or V/C ratio*	LOS	
1	Brentwood Blvd. @ Delta Rd.	TWSC	48.0 (WB)	E	178.4 (WB)	F	Yes
2	Delta Rd. @ Sellers Ave.	AWSC	11.6	B	9.9	A	Yes
3	Brentwood Blvd. @ E. Sims Rd.	TWSC	30.7 (WB)	D	82.2(WB)	F	No
4	Brentwood Blvd. @ Lone Tree Wy.	Signal	0.462	A	0.453	A	N/A
5	Arroyo Seco Rd. @ Lone Tree Wy.	TWSC	8.8 (NB)	A	8.8 (NB)	A	No
6	Brentwood Blvd. @ Sunrise Dr.	TWSC	25.3 (EB)	D	72.4 (EB)	F	No
7	Brentwood Blvd. @ Gregory Ln.	TWSC	26.1 (EB)	D	108.4 (EB)	F	No
8	Brentwood Blvd. @ Hanson Ln.	TWSC	31.3 (WB)	D	92.0 (WB)	F	No
9	Brentwood Blvd. @ Homecoming Wy.	TWSC	27.9 (WB)	D	20.1 (WB)	C	No
10	Brentwood Blvd. @ Grant St./Sunset Rd.	Signal	0.628	B	0.710	C	N/A
11	Brentwood Blvd. @ Sunset Ct.	TWSC	15.4 (WB)	C	20.8 (WB)	C	No
12	Brentwood Blvd. @ Havenwood Ave.	TWSC	23.4 (WB)	C	170.9 (WB)	F	No
13	Brentwood Blvd. @ Applewood Common	Signal	0.484	A	0.638	B	N/A
14	Brentwood Blvd. @ Sand Creek Rd.	Signal	0.361	A	0.399	A	N/A
15	Brentwood Blvd. @ Technology Wy.	Signal	0.187	A	0.218	A	N/A
16	Brentwood Blvd. @ Nancy St.	Signal	0.239	A	0.277	A	N/A
17	Brentwood Blvd. @ Village Dr.	TWSC	19.9 (WB)	C	36.3 (WB)	E	No
18	Brentwood Blvd. @ Central Blvd./Sycamore Ave.	Signal	0.384	A	0.462	A	N/A
20	Second St. @ Central Blvd.	Signal	0.266	A	0.222	A	N/A
21	Central Blvd. @ Walnut Blvd.	Signal	0.205	A	0.202	A	N/A
22	Brentwood Blvd. @ Pine St.	TWSC	11.8 (EB)	B	13.1 (WB)	B	No
23	Brentwood Blvd. @ Maple St.	TWSC	10.0 (WB)	B	10.3 (EB)	B	No
24	Brentwood Blvd. @ Oak St.	Signal	0.391	A	0.438	A	N/A
25	Oak St. @ Walnut Blvd.	Signal	0.368	A	0.420	A	N/A
26	Brentwood Blvd. @ Second St.	Signal	0.375	A	0.359	A	N/A
27	Brentwood Blvd. @ Chestnut St.	TWSC	15.9 (WB)	C	17.7 (WB)	C	No
28	Brentwood Blvd. @ Balfour Rd.	Signal	0.529	A	0.732	C	N/A
29	Sellers Ave. @ Sunset Rd.	AWSC	11.9	B	11.3	B	No

* Control delay for worst minor approach (worst minor movement) for TWSC.
1. Per the California Manual on Uniform Traffic Control Devices (CMUTCD), September 26, 2006, Sectrion 4C.

Roadway Segments

Table 5 presents the existing roadway segment levels of service for the study roadway segments. As indicated in Table 5, the roadway segments operate at LOS A to LOS E.

Table 5 – Existing Roadway Segment Levels of Service

#	Intersection	Facility Type	# of Lanes	AM Peak-Hour		PM Peak-Hour	
				PTSF (2 lane) pc/hr/ln (4 lane)[1]	LOS	PTSF (2 lane) pc/hr/ln (4 lane)[1]	LOS
1	Brentwood Blvd. between E. Sims Rd. and Delta Rd.*	Arterial	2	77.0%	E	82.3%	E
2	Brentwood Blvd. Grant St./Sunset Rd. Sunset Ct.*	Arterial	2	80.7%	E	87.4%	E
3	Brentwood Blvd. between Central Blvd. and Spruce St.*	Arterial	4	316 / 329	A / A	426 / 404	A / A
4	Brentwood Blvd. between Oak Ave. and Pine Ave.*	Arterial	4	305 / 272	A / A	332 / 336	A / A
5	Delta Rd. east of Brentwood Blvd.**	Collector	2	34.5%	A	26.6%	A
6	Lone Tree Wy. west of Brentwood Blvd.**	Collector	2	57.7%	C	59.6%	C
7	Sunset Rd. east of Brentwood Blvd.**	Collector	2	61.5%	C	61.8%	C
8	Central Blvd. west of Brentwood Blvd.**	Arterial	4	70 / 160	A / A	129 / 192	A / A
9	Grant St. west of Brentwood Blvd.**	Collector	2	54.3%	B	44.9%	B
10	Sycamore Ave. east of Brentwood Blvd.**	Collector	2	52.5%	B	54.3%	B

Source: *Highway Capacity Manual, 2000.*

[1] PTSF = Percent Time Spent Following, pc/hr/ln = passenger cars per hour per lane.

* Results for this roadway segment are presented in **NB / SB** format (where applicable).

** Results for this roadway segment are presented in **EB / WB** format (where applicable).

EXISTING PLUS APPROVED PROJECTS CONDITIONS

Peak-hour traffic associated with several development projects in the vicinity of the proposed project was added to the existing traffic volumes. These projects, which are in various stages of planning or development, are assumed to be developed and fully occupied prior to implementation of the Proposed Project. Project information for all approved projects to be included in this analysis was provided by the City[12].

A summary of pending or approved projects that were determined to contribute traffic to the study intersections is provided in Table 6.

[12] City of Brentwood Project Status Report, May 5, 2007.

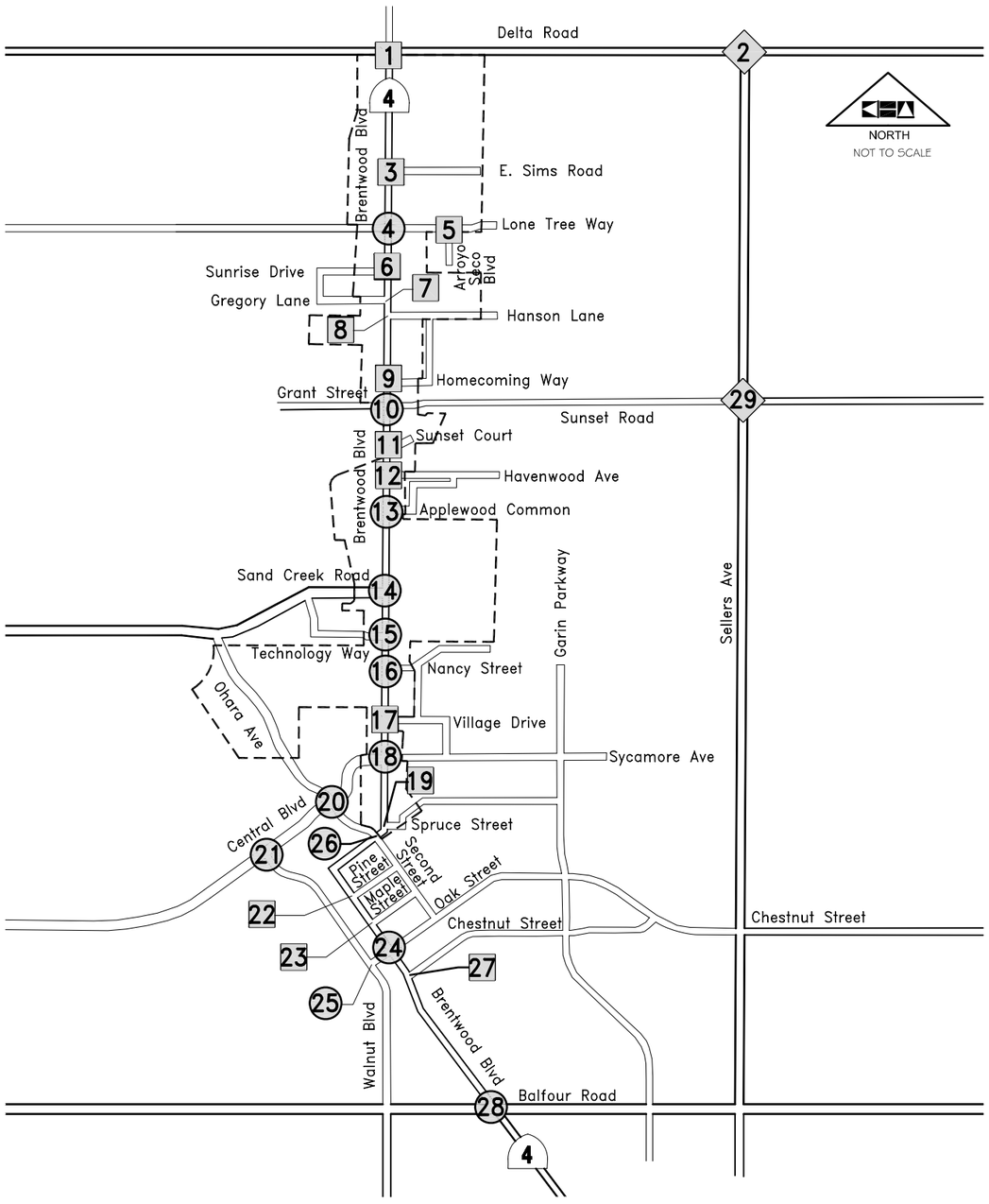
Table 6 – Pending and Approved Projects

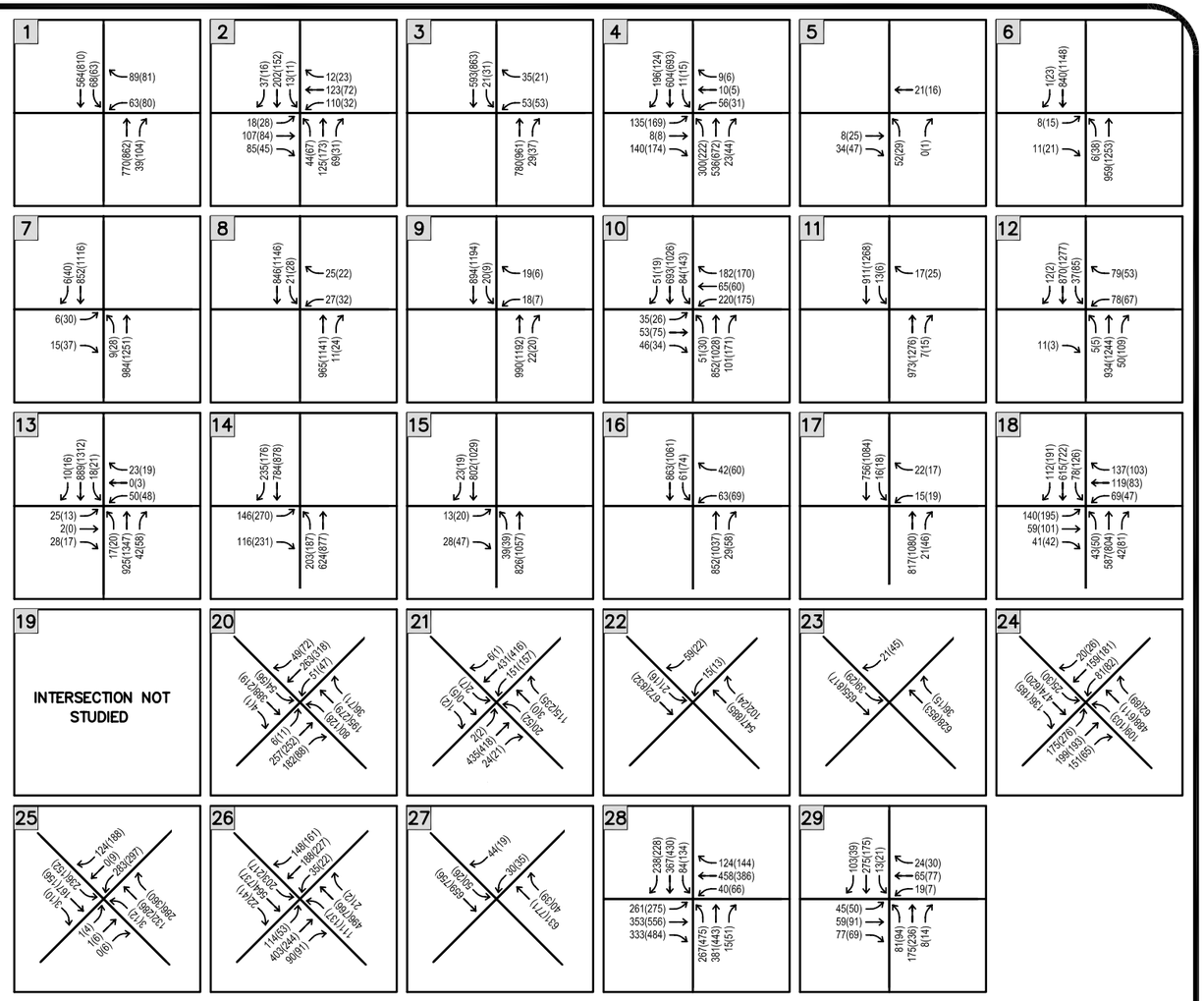
Project Name	Land Use Type	Size
Palmilla	Residential	471 Single Family, 108 Multi-family
Towncentre Commons	Residential	16 Multi-family
Garin Corners	Residential	168 Single Family
Mission Grove	Residential	140 Single Family
Magnolia	Residential	34 Single Family
Barrington	Residential	494 Single Family
The Parc at Cedarwood	Residential	177 Single Family
Brentwood Senior Commons	Residential	80 Multi-Family
Sycamore Glen	Residential	9 Single Family
Hampton Inn	Hotel	59 Rooms
Brentwood Center II	Retail	8,800 Sq. Ft.
Office Condo Buildings	Office	37,776 Sq. Ft.
Sand Creek Plaza	Retail	8,595 Retail
The Plaza at Balfour	Retail	33,200 Sq. Ft.
Garin Commercial	Retail /Office	44,300 Sq. Ft. Retail, 55,500 Sq. Ft. Office
Best Western Motel	Motel	45 Rooms
RayWilliams	Office	30,000 Sq. Ft.

Figure 7 provides the AM and PM peak-hour traffic volumes at the study intersections for this analysis scenario. Analysis worksheets for this scenario are provided in Appendix C.

Intersections
Table 7 presents the peak-hour intersection operating conditions and signal warrants for the study intersections. As indicated in Table 7, the study intersections operate from LOS A to LOS F during the AM and PM peak- hours.

Roadway Segments
Table 8 presents the roadway segment levels of service for the study roadway segments. As indicated in Table 8, the roadway segments operate at LOS A to LOS E.





LEGEND

X	2–WAY STOP CONTROLLED STUDY INTERSECTIONS
X	ALL–WAY STOP CONTROLLED STUDY INTERSECTIONS
X	SIGNALIZED STUDY INTERSECTIONS
XXX	AM PEAK–HOUR VOLUMES
(XXX)	PM PEAK–HOUR VOLUMES
– – –	PROJECT BOUNDARY

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FIGURE 7

EXISTING PLUS APPROVED PROJECTS PEAK–HOUR TRAFFIC VOLUMES

BRENTWOOD BOULEVARD SPECIFIC PLAN
BRENTWOOD, CA

Table 7 – Existing plus Approved Projects Intersection Levels of Service

#	Intersection	Traffic Control	AM Peak-Hour		PM Peak-Hour		Meets Signal Warrant[1]
			Delay (sec.) or V/C ratio*	LOS	Delay (sec.) or V/C ratio*	LOS	
1	Brentwood Blvd. @ Delta Rd.	TWSC	105.2 (WB)	F	443.2 (WB)	F	Yes
2	Delta Rd. @ Sellers Ave.	AWSC	11.6	B	9.9	A	Yes
3	Brentwood Blvd. @ E. Sims Rd.	TWSC	60.3 (WB)	F	293.1 (WB)	F	Yes
4	Brentwood Blvd. @ Lone Tree Wy.	Signal	0.530	A	0.535	A	N/A
5	Arroyo Seco Rd. @ Lone Tree Wy.	TWSC	8.9 (NB)	A	8.9 (NB)	A	No
6	Brentwood Blvd. @ Sunrise Dr.	TWSC	39.8 (EB)	E	457.4 (EB)	F	No
7	Brentwood Blvd. @ Gregory Ln.	TWSC	34.4 (EB)	D	703.9 (EB)	F	No
8	Brentwood Blvd. @ Hanson Ln.	TWSC	88.0 (WB)	F	711.1 (WB)	F	No
9	Brentwood Blvd. @ Homecoming Wy.	TWSC	85.1 (WB)	F	326.3 (WB)	F	No
10	Brentwood Blvd. @ Grant St./Sunset Rd.	Signal	0.784	C	0.909	E	N/A
11	Brentwood Blvd. @ Sunset Ct.	TWSC	19.0 (WB)	C	32.4 (WB)	D	No
12	Brentwood Blvd. @ Havenwood Ave.	TWSC	89.4 (WB)	F	> 1000 (WB)	F	No
13	Brentwood Blvd. @ Applewood Common	Signal	0.620	B	0.866	D	N/A
14	Brentwood Blvd. @ Sand Creek Rd.	Signal	0.481	A	0.560	A	N/A
15	Brentwood Blvd. @ Technology Wy.	Signal	0.256	A	0.330	A	N/A
16	Brentwood Blvd. @ Nancy St.	Signal	0.328	A	0.401	A	N/A
17	Brentwood Blvd. @ Village Dr.	TWSC	39.7 (WB)	E	218.8 (WB)	F	No
18	Brentwood Blvd. @ Central Blvd./Sycamore Ave.	Signal	0.537	A	0.702	C	N/A
20	Second St. @ Central Blvd.	Signal	0.331	A	0.272	A	N/A
21	Central Blvd. @ Walnut Blvd.	Signal	0.243	A	0.280	A	N/A
22	Brentwood Blvd. @ Pine St.	TWSC	13.5 (WB)	B	20.6 (WB)	C	No
23	Brentwood Blvd. @ Maple St.	TWSC	10.6 (WB)	B	11.9 (WB)	B	No
24	Brentwood Blvd. @ Oak St.	Signal	0.460	A	0.532	A	N/A
25	Oak St. @ Walnut Blvd.	Signal	0.394	A	0.460	A	N/A
26	Brentwood Blvd. @ Second St.	Signal	0.429	A	0.457	A	N/A
27	Brentwood Blvd. @ Chestnut St.	TWSC	25.5 (WB)	D	40.9 (WB)	E	No
28	Brentwood Blvd. @ Balfour Rd.	Signal	0.605	B	0.793	C	N/A
29	Sellers Ave. @ Sunset Rd.	AWSC	12.0	B	11.6	B	No

* Control delay for worst minor approach (worst minor movement) for TWSC.
1. Per the California Manual on Uniform Traffic Control Devices (CMUTCD), September 26, 2006, Sectrion 4C.

Table 8 – Existing plus Approved Projects Roadway Segment Levels of Service

#	Intersection	Facility Type	# of Lanes	AM Peak-Hour		PM Peak-Hour	
				PTSF (2 lane) pc/hr/ln (4 lane)[1]	LOS	PTSF (2 lane) pc/hr/ln (4 lane)[1]	LOS
1	Brentwood Blvd. between E. Sims Rd. and Delta Rd.*	Arterial	2	81.5%	E	86.5%	E
2	Brentwood Blvd. Grant St./Sunset Rd. Sunset Ct.*	Arterial	2	87.0%	E	93.4%	E
3	Brentwood Blvd. between Central Blvd. and Spruce St.*	Arterial	4	392 / 436	A / A	629 / 527	B / B
4	Brentwood Blvd. between Oak Ave. and Pine Ave.*	Arterial	4	377 / 379	A / A	489 / 455	A / A
5	Delta Rd. east of Brentwood Blvd.**	Collector	2	34.5%	A	26.6%	A
6	Lone Tree Wy. west of Brentwood Blvd.**	Collector	2	66.9%	C	65.2%	C
7	Sunset Rd. east of Brentwood Blvd.**	Collector	2	65.1%	C	68.8%	C
8	Central Blvd. west of Brentwood Blvd.**	Arterial	4	140 / 208	A / A	203 / 290	A / A
9	Grant St. west of Brentwood Blvd.**	Collector	2	54.3%	B	44.9%	B
10	Sycamore Ave. east of Brentwood Blvd.**	Collector	2	60.9%	C	62.9%	C

Source: *Highway Capacity Manual, 2000.*

[1] PTSF = Percent Time Spent Following, pc/hr/ln = passenger cars per hour per lane.

* Results for this roadway segment are presented in **NB / SB** format (where applicable).

** Results for this roadway segment are presented in **EB / WB** format (where applicable).

EXISTING PLUS APPROVED PROJECTS PLUS PROPOSED PROJECT CONDITIONS

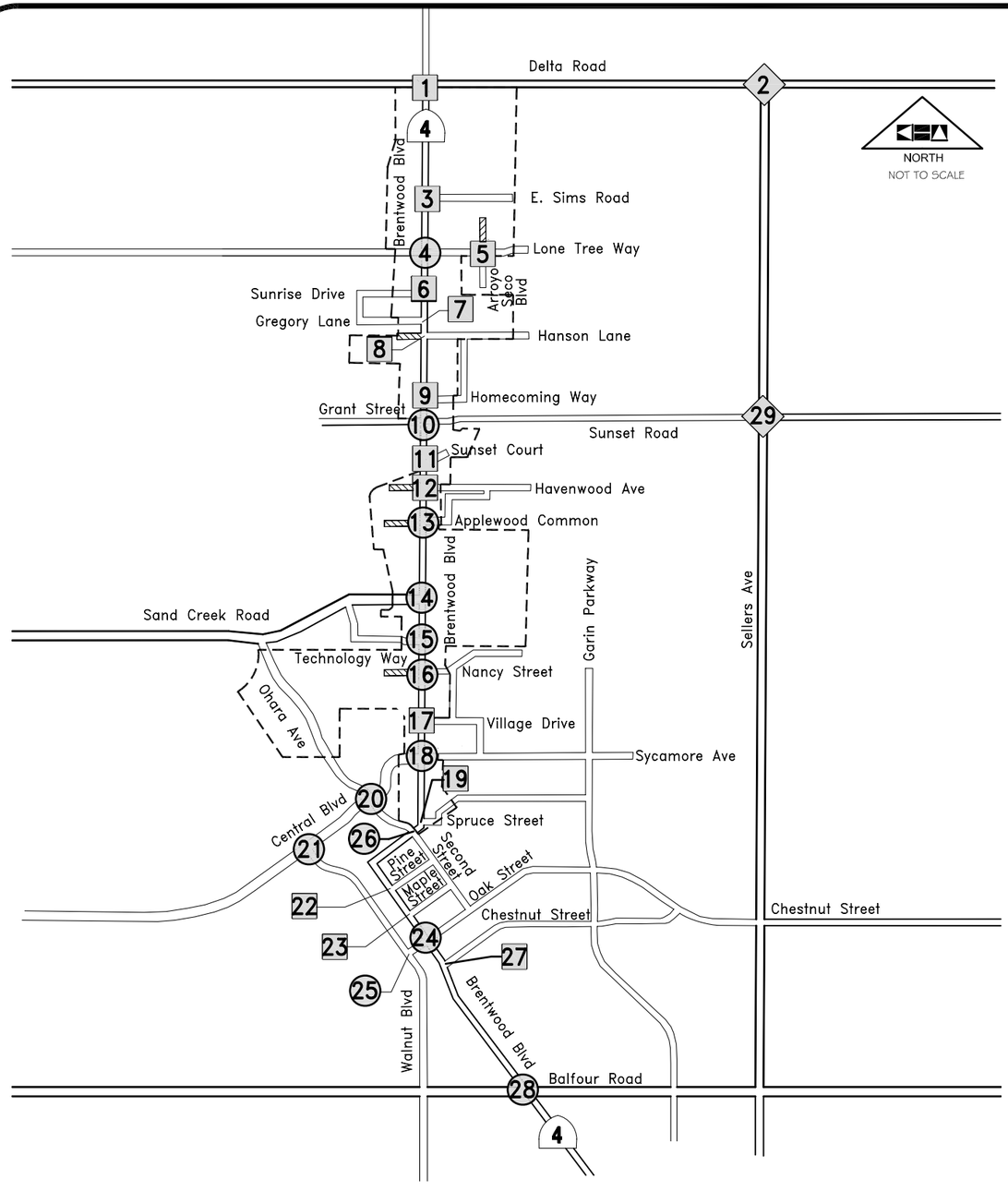
Traffic associated with the proposed project was added to the Existing plus Approved Projects traffic volumes to establish the Existing plus Approved Projects plus Proposed Project traffic conditions. It is important to note that trips attributed to existing land uses were not discounted with the addition of the proposed project trips. Furthermore, the SR-4 Bypass, which will result in removing vehicle trips from Brentwood Boulevard, is expected to be fully operational prior to the full build-out of the proposed project. However, the SR-4 Bypass was not included in this analysis scenario due to uncertainties in the timing of its completion. Due to these assumptions, the traffic volumes for this analysis scenario are anticipated to be greater than what is expected upon full build-out of the proposed project and, therefore, result in a conservative analysis. Traffic volumes for this scenario are presented in Figure 8.

Figure 9 presents the revised lane geometries for this scenario, which have been modified due to anticipated extensions of some east-west side streets[13]. Analysis worksheets for this scenario are provided in Appendix D.

Intersections

Table 9 presents the peak-hour intersection operating conditions for the study intersections. As indicated in Table 9, the study intersections operate from LOS A to LOS F during the AM and PM peak- hours.

[13] Draft Brentwood Boulevard Specific Plan Land Use and Circulation Map, August 2, 2007.



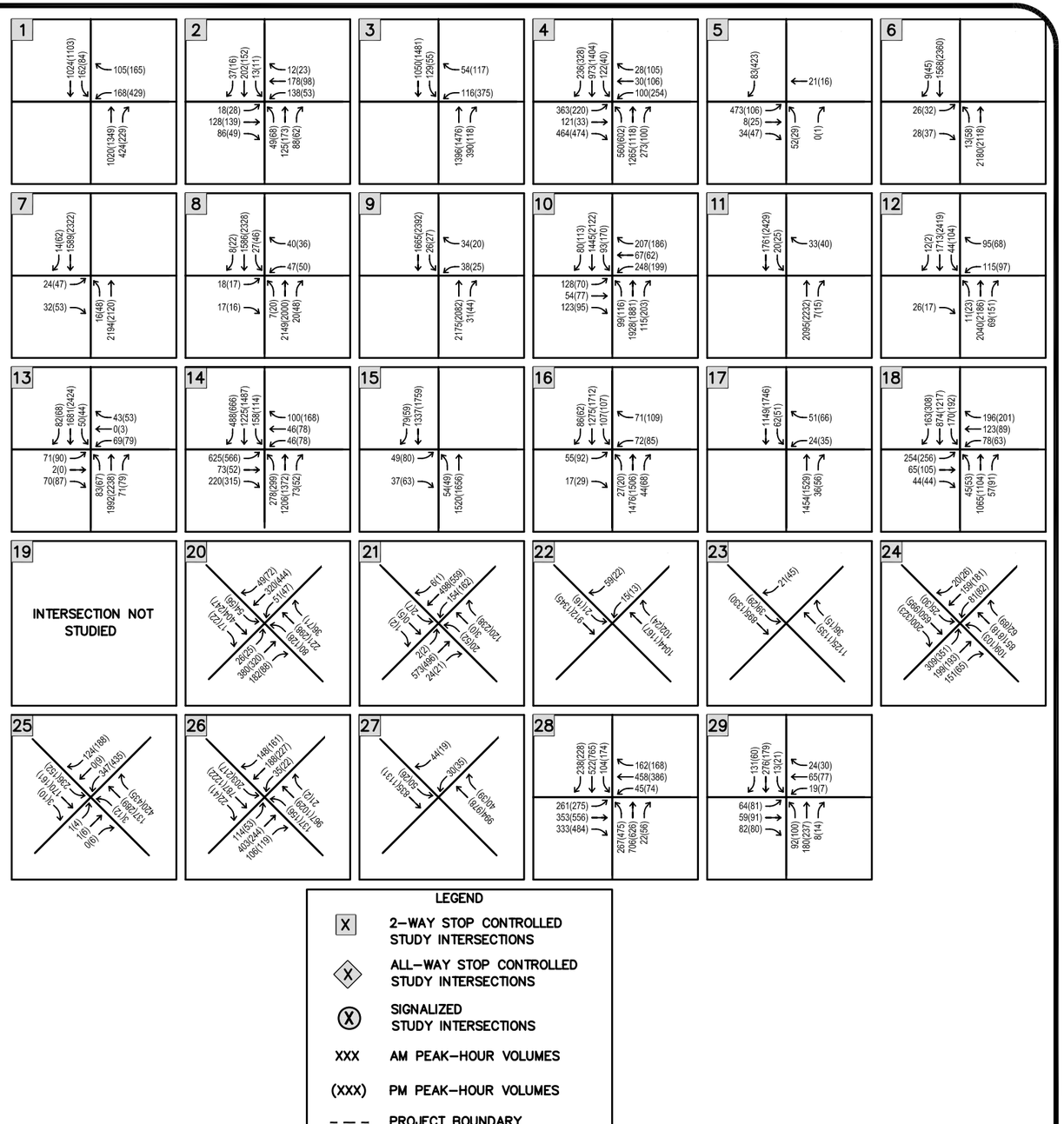


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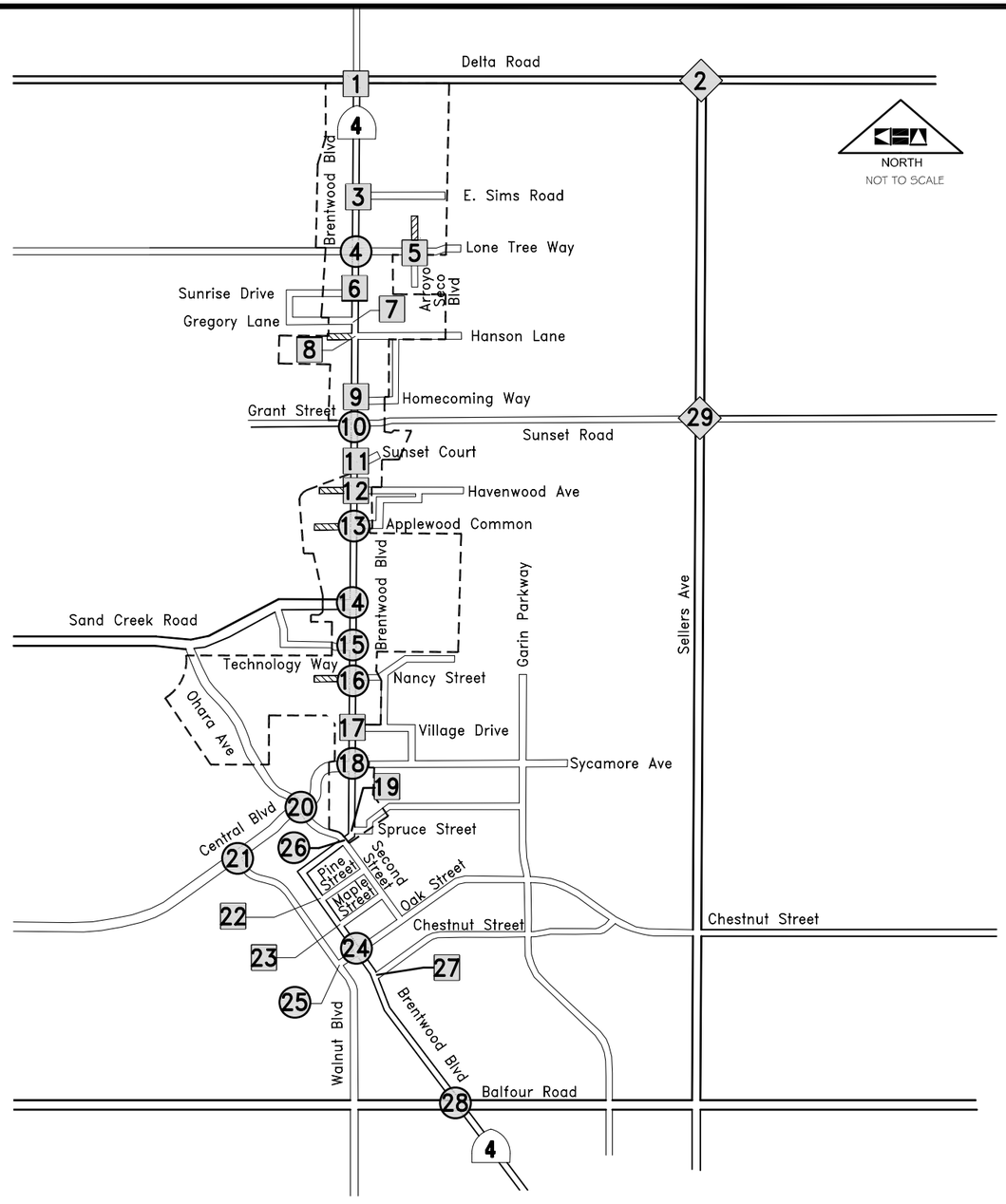
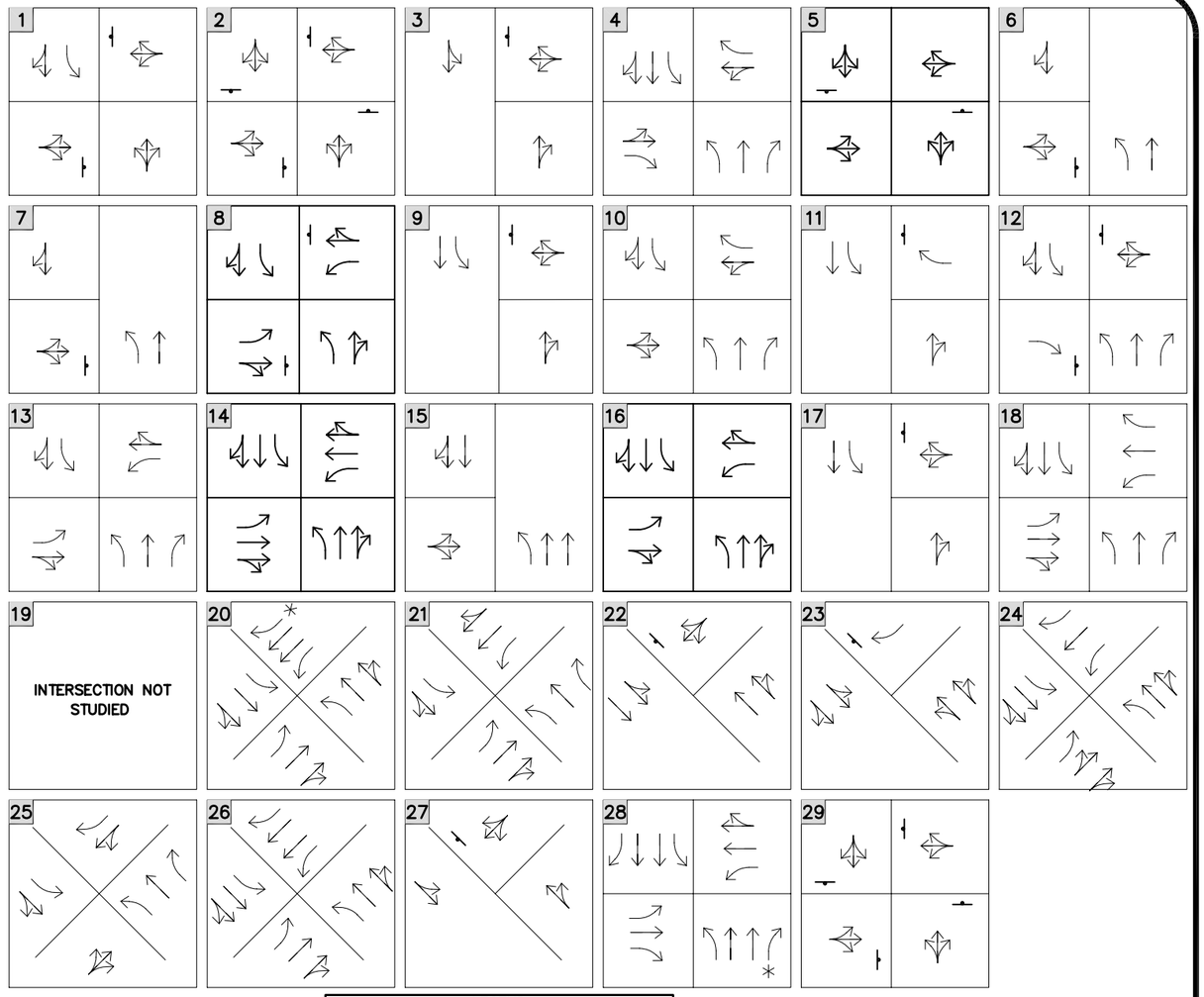
FIGURE 8

EXISTING PLUS APPROVED PROJECT PLUS PROPOSED PROJECT PEAk-HOUR TRAFFIC VOLUMES

BRENTWOOD BOULEVARD SPECIFIC PLAN
BRENTWOOD, CA





LEGEND

- 2-WAY STOP CONTROLLED STUDY INTERSECTIONS
- ALL-WAY STOP CONTROLLED STUDY INTERSECTIONS
- SIGNALIZED STUDY INTERSECTIONS
- FREE RIGHT TURN
- PROJECT BOUNDARY
- ACCESS ROAD WITH PROJECT

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FIGURE 9

EXISTING PLUS APPROVED PROJECTS PLUS PROPOSED PROJECT
INTERSECTION GEOMETRY AND TRAFFIC CONTROL

BRENTWOOD BOULEVARD SPECIFIC PLAN
BRENTWOOD, CA

Table 9 – Existing plus Approved Projects plus Proposed Project Intersection Levels of Service

#	Intersection	Traffic Control	AM Peak-Hour		PM Peak-Hour		Meets Signal Warrant[1]
			Delay (sec.) or V/C ratio*	LOS	Delay (sec.) or V/C ratio*	LOS	
1	Brentwood Blvd. @ Delta Rd.	TWSC	> 1000 (WB)	F	> 1000 (WB)	F	Yes
2	Delta Rd. @ Sellers Ave.	AWSC	13.5	B	11.1	B	Yes
3	Brentwood Blvd. @ E. Sims Rd.	TWSC	> 1000 (WB)	F	> 1000 (WB)	F	Yes
4	Brentwood Blvd. @ Lone Tree Wy.	Signal	1.213	F	1.261	F	N/A
5	Arroyo Seco Rd. @ Lone Tree Wy.	TWSC	41.4 (NB)	E	19.0 (NB)	C	No
6	Brentwood Blvd. @ Sunrise Dr.	TWSC	> 1000 (EB)	F	> 1000 (EB)	F	Yes
7	Brentwood Blvd. @ Gregory Ln.	TWSC	> 1000 (EB)	F	> 1000 (EB)	F	Yes
8	Brentwood Blvd. @ Hanson Ln.	TWSC	> 1000 (WB)	F	> 1000 (WB)	F	No
9	Brentwood Blvd. @ Homecoming Wy.	TWSC	> 1000 (WB)	F	> 1000 (WB)	F	Yes
10	Brentwood Blvd. @ Grant St./Sunset Rd.	Signal	1.601	F	1.730	F	N/A
11	Brentwood Blvd. @ Sunset Ct.	TWSC	297.1 (WB)	F	668.4 (WB)	F	No
12	Brentwood Blvd. @ Havenwood Ave.	TWSC	> 1000 (WB)	F	> 1000 (WB)	F	Yes
13	Brentwood Blvd. @ Applewood Common	Signal	0.911	E	1.059	F	N/A
14	Brentwood Blvd. @ Sand Creek Rd.	Signal	1.127	F	1.278	F	N/A
15	Brentwood Blvd. @ Technology Wy.	Signal	0.472	A	0.603	B	N/A
16	Brentwood Blvd. @ Nancy St.	Signal	0.602	B	0.672	B	N/A
17	Brentwood Blvd. @ Village Dr.	TWSC	> 1000 (WB)	F	> 1000 (WB)	F	Yes
18	Brentwood Blvd. @ Central Blvd./Sycamore Ave.	Signal	0.937	E	0.954	E	N/A
20	Second St. @ Central Blvd.	Signal	0.377	A	0.295	A	N/A
21	Central Blvd. @ Walnut Blvd.	Signal	0.287	A	0.305	A	N/A
22	Brentwood Blvd. @ Pine St.	TWSC	24.3 (WB)	C	41.3 (WB)	E	No
23	Brentwood Blvd. @ Maple St.	TWSC	13.3 (WB)	B	13.6 (WB)	B	No
24	Brentwood Blvd. @ Oak St.	Signal	0.567	A	0.707	C	N/A
25	Oak St. @ Walnut Blvd.	Signal	0.438	A	0.546	A	N/A
26	Brentwood Blvd. @ Second St.	Signal	0.574	A	0.576	A	N/A
27	Brentwood Blvd. @ Chestnut St.	TWSC	71.3 (WB)	F	150.3 (WB)	F	No
28	Brentwood Blvd. @ Balfour Rd.	Signal	0.666	B	0.902	E	N/A
29	Sellers Ave. @ Sunset Rd.	AWSC	13.1	B	12.5	B	No

Shaded cells indicate significant impact. *
Control delay for worst minor approach (worst minor movement) for TWSC.
1. Per the California Manual on Uniform Traffic Control Devices (CMUTCD), September 26, 2006, Sectrion 4C.

Roadway Segments
Table 10 presents the roadway segment levels of service for the study roadway segments. As indicated in Table 10, the roadway segments operate at LOS A to LOS E.

Table 10 – Existing plus Approved Projects plus Proposed Project Roadway Segment Levels of Service

#	Intersection	Facility Type	# of Lanes	AM Peak-Hour		PM Peak-Hour	
				PTSF (2 lane) pc/hr/ln (4 lane)[1]	LOS	PTSF (2 lane) pc/hr/ln (4 lane)[1]	LOS
1	Brentwood Blvd. between E. Sims Rd. and Delta Rd.*	Arterial	2	93.9%	E	95.9%	E
2	Brentwood Blvd. Grant St./Sunset Rd. Sunset Ct.*	Arterial	2	99.0%	E	100.0%	E
3	Brentwood Blvd. between Central Blvd. and Spruce St.*	Arterial	4	680 / 559	B / B	840 / 784	C / B
4	Brentwood Blvd. between Oak Ave. and Pine Ave.*	Arterial	4	667 / 522	B / B	641 / 732	B / B
5	Delta Rd. east of Brentwood Blvd.**	Collector	2	44.3%	B	54.3%	B
6	Lone Tree Wy. west of Brentwood Blvd.**	Collector	2	86.4%	E	86.3%	E
7	Sunset Rd. east of Brentwood Blvd.**	Collector	2	67.7%	C	71.7%	D
8	Central Blvd. west of Brentwood Blvd.**	Arterial	4	213 / 241	A / A	243 / 374	A / A
9	Grant St. west of Brentwood Blvd.**	Collector	2	65.0%	C	61.7%	C
10	Sycamore Ave. east of Brentwood Blvd.**	Collector	2	65.0%	C	68.8%	C

Source: *Highway Capacity Manual, 2000* .
Shaded cells indicate significant impact.
[1] PTSF = Percent Time Spent Following, pc/hr/ln = passenger cars per hour per lane.
* Results for this roadway segment are presented in **NB / SB** format (where applicable).
** Results for this roadway segment are presented in **EB / WB** format (where applicable).

CUMULATIVE (2030) CONDITIONS

Year 2030 AM and PM peak-hour roadway segment traffic volumes were obtained from the CCTA Regional Travel Demand model. The model estimates vehicle traffic expected for build-out of the land uses designated in the General Plan. The model then assigns those traffic volumes to various roadway facilities anticipated to be in place prior to the year for which traffic is being forecasted. The SR-4 Bypass is assumed to be in place under cumulative conditions.

The City's General Plan[14] designates a number of improvements for the project area as noted below. It is assumed the following improvements will be implemented over time with the implementation of the General Plan.

- Widen Brentwood Boulevard to 4-lanes

[14] *City of Brentwood General Plan, 2001-2021*, November 2001.

- Sand Creek Road east from Brentwood to Sellers Avenue.

Existing turning movement percentages were used to establish turning movement volumes for Cumulative traffic conditions. In some cases, the use of existing turning movement percentages were not deemed appropriate due to anticipated roadway network changes. In such cases, traffic volumes were adjusted to reflect the probable effects on the circulation patterns in the vicinity of the proposed project. Traffic volumes for this scenario are presented in Figure 10.

Figure 11 presents the revised lane geometries for this scenario, which takes into account the extension of existing roadways due to the Proposed Project, as presented in Figure 1. Analysis worksheets for this scenario are provided in Appendix E.

Intersections
Table 11 presents the peak-hour intersection operating conditions for the study intersections. As indicated in Table 11, the study intersections operate from LOS A to LOS F during the AM and PM peak- hours.

Roadway Segments
Table 12 presents the roadway segment levels of service for the study roadway segments. As indicated in Table 12, the roadway segments operate at LOS A to LOS E.

CUMULATIVE PLUS PROPOSED PROJECT CONDITIONS

For the Cumulative Plus Proposed Project Conditions, the CCTA Regional Travel Demand Model was revised to include the land uses designated in the proposed project. Land use data for all Traffic Analysis Zones (TAZ) within the proposed project area was obtained from the City[15]. The CCTA model was then adjusted to reflect the land use changes as specified in the Brentwood Boulevard Specific Plan. Furthermore, AM and PM peak-hour roadway segment traffic volumes were extracted from the adjusted model to aid in the development of Cumulative plus Proposed Project traffic volumes. Traffic volumes for this scenario are presented in Figure 12. Analysis worksheets for this scenario are provided in Appendix F.

Intersections
Table 13 presents the peak-hour intersection operating conditions for the study intersections. As indicated in Table 13, the study intersections operate from LOS A to LOS F during the AM and PM peak- hours.

Roadway Segments

Table 14 presents the roadway segment levels of service for the study roadway segments. As indicated in Table 14, the roadway segments operate at LOS A to LOS E.

[15] Per email from Heidi Kline, City of Brentwood, September 4, 2007.

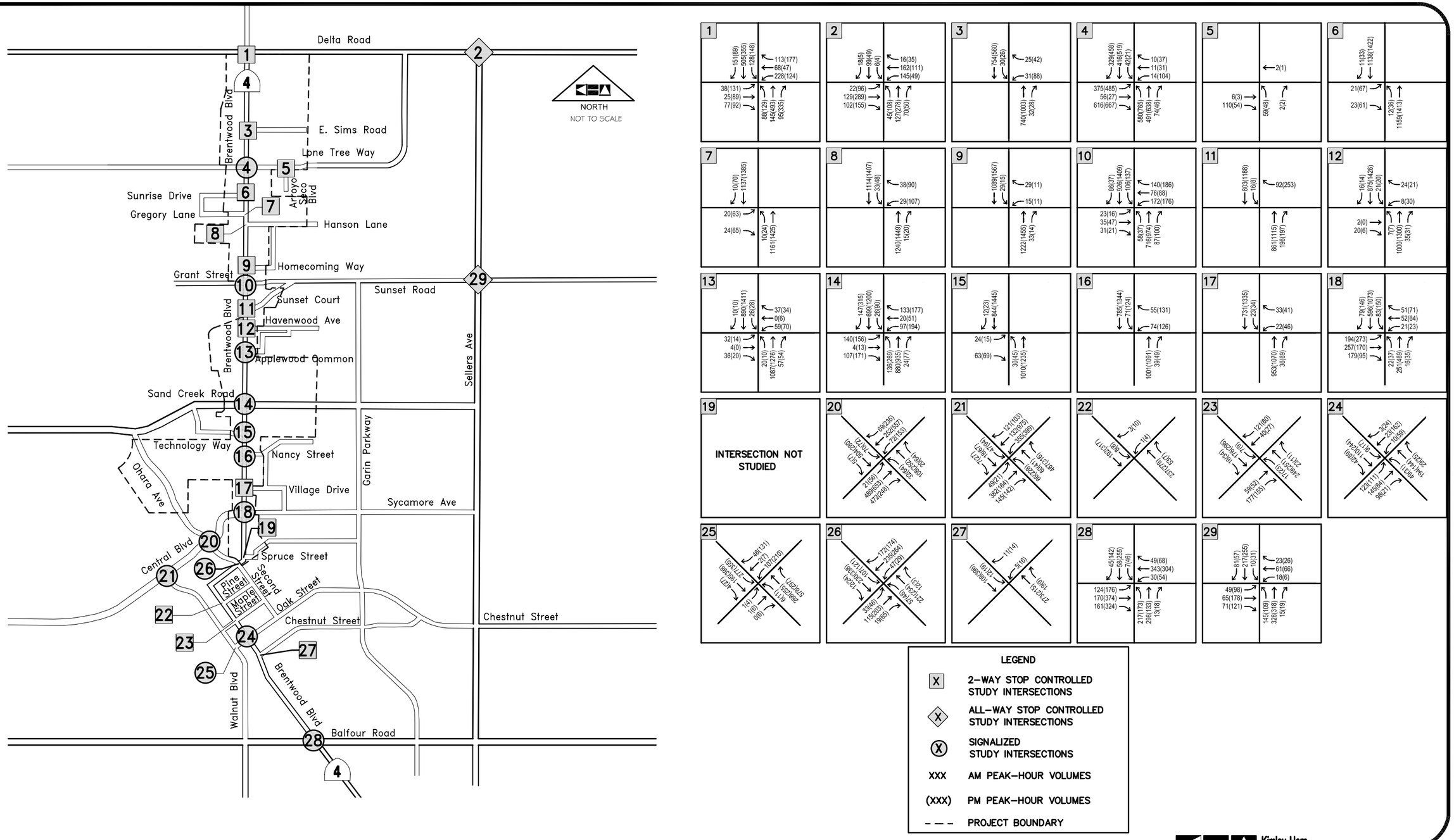


FIGURE 10

CUMULATIVE PEAK-HOUR TRAFFIC VOLUMES

BRENTWOOD BOULEVARD SPECIFIC PLAN
BRENTWOOD, CA

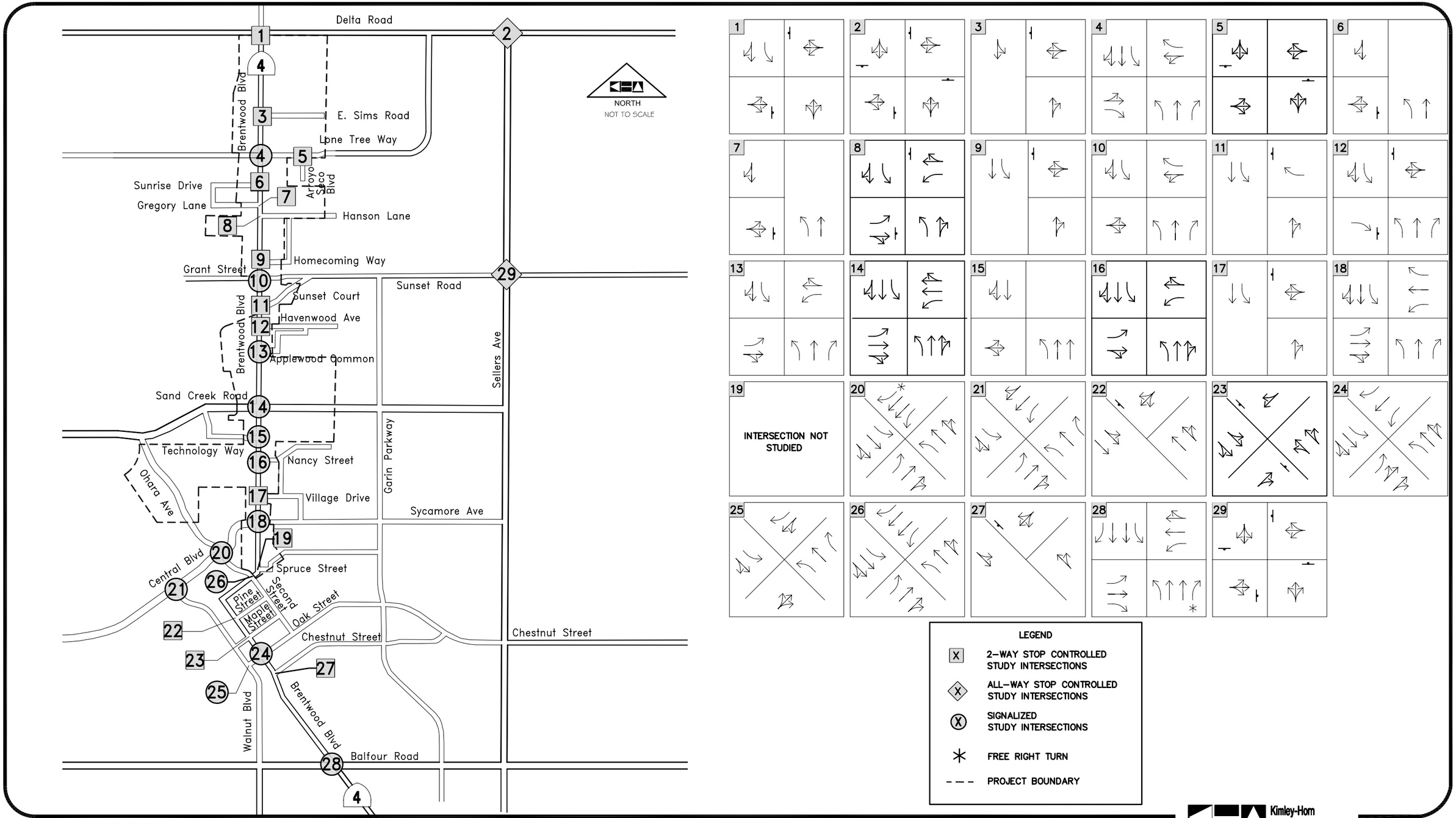


FIGURE 11

CUMULATIVE LANE GEOMETRIES AND TRAFFIC CONTROL

BRENTWOOD BOULEVARD SPECIFIC PLAN
BRENTWOOD, CA

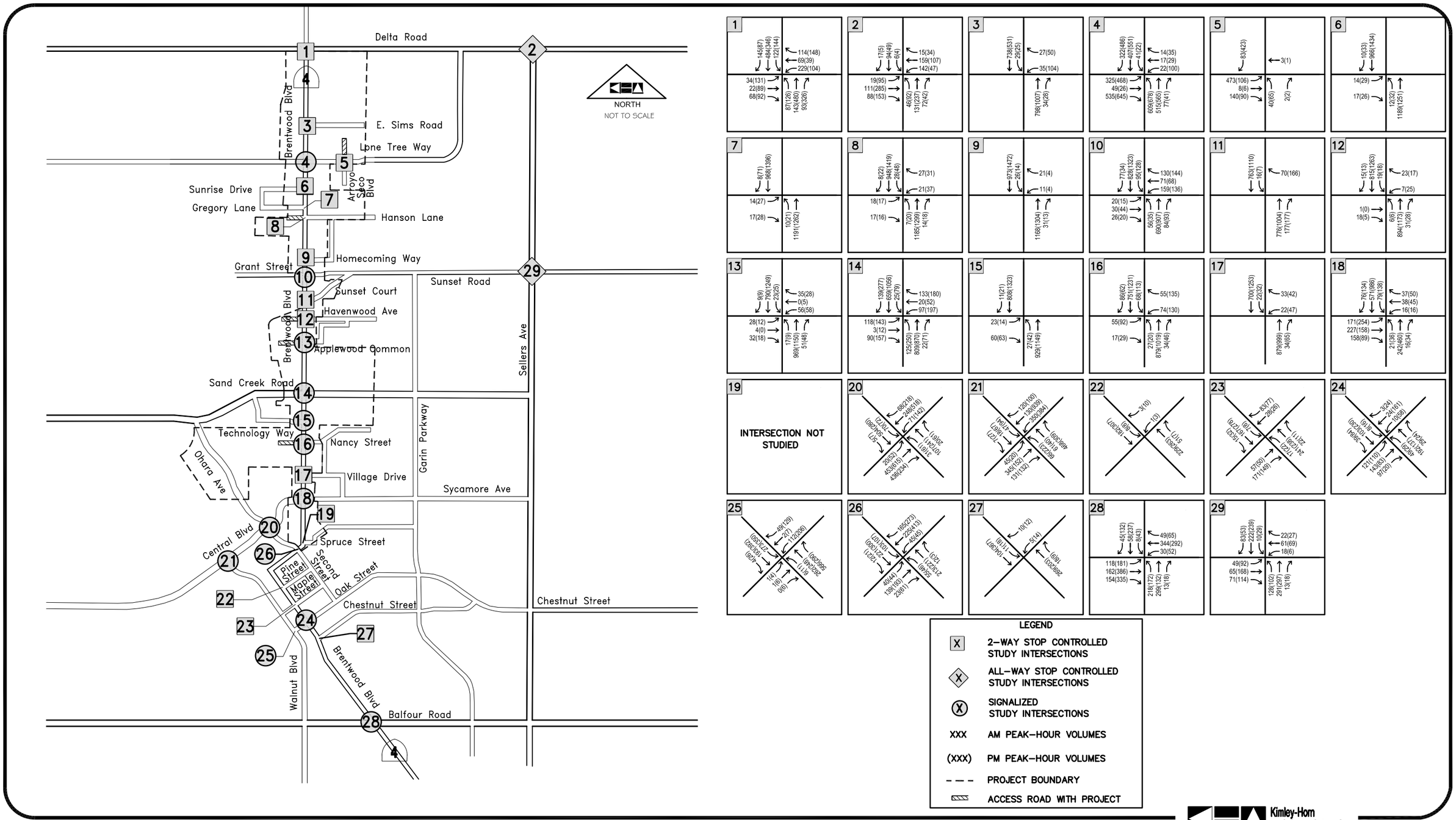


FIGURE 12

CUMULATIVE PLUS PROPOSED PROJECT PEAK-HOUR TRAFFIC VOLUMES

BRENTWOOD BOULEVARD SPECIFIC PLAN
BRENTWOOD, CA

Table 11 – Cumulative Levels of Service

#	Intersection	Traffic Control	AM Peak-Hour		PM Peak-Hour		Meets Signal Warrant[1]
			Delay (sec.) or V/C ratio*	LOS	Delay (sec.) or V/C ratio*	LOS	
1	Brentwood Blvd. @ Delta Rd.	TWSC	> 1000 (WB)	F	> 1000 (WB)	F	Yes
2	Delta Rd. @ Sellers Ave.	AWSC	12.0	B	26.5	D	Yes
3	Brentwood Blvd. @ E. Sims Rd.	TWSC	35.4 (WB)	E	129.1 (WB)	F	Yes
4	Brentwood Blvd. @ Lone Tree Wy.	Signal	0.854	D	1.152	F	N/A
5	Arroyo Seco Rd. @ Lone Tree Wy.	TWSC	> 1000 (NB)	F	> 1000 (NB)	F	No
6	Brentwood Blvd. @ Sunrise Dr.	TWSC	114.8 (EB)	F	> 1000 (EB)	F	Yes
7	Brentwood Blvd. @ Gregory Ln.	TWSC	107.4 (EB)	F	> 1000 (EB)	F	Yes
8	Brentwood Blvd. @ Hanson Ln.	TWSC	139.1 (WB)	F	> 1000 (WB)	F	Yes
9	Brentwood Blvd. @ Homecoming Wy.	TWSC	95.8 (WB)	F	368.8 (WB)	F	No
10	Brentwood Blvd. @ Grant St./Sunset Rd.	Signal	0.853	D	1.110	F	N/A
11	Brentwood Blvd. @ Sunset Ct.	TWSC	21.3 (WB)	C	150.1 (WB)	F	Yes
12	Brentwood Blvd. @ Havenwood Ave.	TWSC	45.7 (WB)	E	> 1000 (WB)	F	No
13	Brentwood Blvd. @ Applewood Common	Signal	0.735	C	0.918	E	N/A
14	Brentwood Blvd. @ Sand Creek Rd.	Signal	0.504	A	0.843	D	N/A
15	Brentwood Blvd. @ Technology Wy.	Signal	0.285	A	0.462	A	N/A
16	Brentwood Blvd. @ Nancy St.	Signal	0.387	A	0.480	A	N/A
17	Brentwood Blvd. @ Village Dr.	TWSC	39.3 (WB)	E	510.6 (WB)	F	No
18	Brentwood Blvd. @ Central Blvd./Sycamore Ave.	Signal	0.348	A	0.572	A	N/A
20	Second St. @ Central Blvd.	Signal	0.508	A	0.505	A	N/A
21	Central Blvd. @ Walnut Blvd.	Signal	0.471	A	0.535	A	N/A
22	Brentwood Blvd. @ Pine St.	TWSC	9.6 (WB)	A	10.0 (WB)	A	No
23	Brentwood Blvd. @ Maple St.	TWSC	12.0 (WB)	B	13.1 (WB)	B	No
24	Brentwood Blvd. @ Oak St.	Signal	0.171	A	0.266	A	N/A
25	Oak St. @ Walnut Blvd.	Signal	0.521	A	0.511	A	N/A
26	Brentwood Blvd. @ Second St.	Signal	0.271	A	0.234	A	N/A
27	Brentwood Blvd. @ Chestnut St.	TWSC	10.3 (WB)	B	11.9 (WB)	B	No
28	Brentwood Blvd. @ Balfour Rd.	Signal	0.343	A	0.442	A	N/A
29	Sellers Ave. @ Sunset Rd.	AWSC	15.7	C	22.0	C	No

* Control delay for worst minor approach (worst minor movement) for TWSC.
1. Per the California Manual on Uniform Traffic Control Devices (CMUTCD), September 26, 2006, Sectrion 4C.

Table 12 – Cumulative Roadway Segment Levels of Service

#	Intersection	Facility Type	# of Lanes	AM Peak-Hour		PM Peak-Hour	
				PTSF (2 lane) pc/hr/ln (4 lane)[1]	LOS	PTSF (2 lane) pc/hr/ln (4 lane)[1]	LOS
1	Brentwood Blvd. between E. Sims Rd. and Delta Rd.*	Arterial	2	75.8%	E	82.5%	E
2	Brentwood Blvd. Grant St./Sunset Rd. Sunset Ct.*	Arterial	2	84.1%	E	92.0%	E
3	Brentwood Blvd. between Central Blvd. and Spruce St.*	Arterial	4	168 / 193	A / A	364 / 256	A / A
4	Brentwood Blvd. between Oak Ave. and Pine Ave.*	Arterial	4	169 / 95	A / A	154 / 189	A / A
5	Delta Rd. east of Brentwood Blvd.**	Collector	2	53.6%	B	57.7%	C
6	Lone Tree Wy. west of Brentwood Blvd.**	Arterial	4	549 / 507	A / A	645 / 699	B / B
7	Sunset Rd. east of Brentwood Blvd.**	Collector	2	63.6%	C	66.1%	C
8	Central Blvd. west of Brentwood Blvd.**	Arterial	4	369 / 225	A / A	324 / 627	A / B
9	Grant St. west of Brentwood Blvd.**	Collector	2	55.1%	C	46.0%	B
10	Sycamore Ave. east of Brentwood Blvd.**	Collector	2	61.5%	C	62.4%	C

Source: *Highway Capacity Manual, 2000.*

[1] PTSF = Percent Time Spent Following, pc/hr/ln = passenger cars per hour per lane.

* Results for this roadway segment are presented in **NB / SB** format (where applicable).

** Results for this roadway segment are presented in **EB / WB** format (where applicable).

Table 13 – Cumulative plus Proposed Project Levels of Service

#	Intersection	Traffic Control	AM Peak-Hour		PM Peak-Hour		Meets Signal Warrant[1]
			Delay (sec.) or V/C ratio*	LOS	Delay (sec.) or V/C ratio*	LOS	
1	Brentwood Blvd. @ Delta Rd.	TWSC	862.5 (WB)	F	> 1000 (WB)	F	Yes
2	Delta Rd. @ Sellers Ave.	AWSC	11.6	B	21.1	C	Yes
3	Brentwood Blvd. @ E. Sims Rd.	TWSC	40.8 (WB)	E	166.7 (WB)	F	Yes
4	Brentwood Blvd. @ Lone Tree Wy.	Signal	0.840	D	1.103	F	N/A
5	Arroyo Seco Rd. @ Lone Tree Wy.	TWSC	> 1000 (NB)	F	> 1000 (NB)	F	No
6	Brentwood Blvd. @ Sunrise Dr.	TWSC	62.9 (EB)	F	550.1 (EB)	F	No
7	Brentwood Blvd. @ Gregory Ln.	TWSC	62.6 (EB)	F	455.7 (EB)	F	No
8	Brentwood Blvd. @ Hanson Ln.	TWSC	160.8 (WB)	F	> 1000 (WB)	F	No
9	Brentwood Blvd. @ Homecoming Wy.	TWSC	58.4 (WB)	F	133.5 (WB)	F	No
10	Brentwood Blvd. @ Grant St./Sunset Rd.	Signal	0.768	C	1.015	F	N/A
11	Brentwood Blvd. @ Sunset Ct.	TWSC	17.7 (WB)	C	40.2 (WB)	E	Yes
12	Brentwood Blvd. @ Havenwood Ave.	TWSC	32.4 (WB)	D	513.5 (WB)	F	No
13	Brentwood Blvd. @ Applewood Common	Signal	0.657	B	0.810	D	N/A
14	Brentwood Blvd. @ Sand Creek Rd.	Signal	0.470	A	0.770	C	N/A
15	Brentwood Blvd. @ Technology Wy.	Signal	0.273	A	0.423	A	N/A
16	Brentwood Blvd. @ Nancy St.	Signal	0.385	A	0.542	A	N/A
17	Brentwood Blvd. @ Village Dr.	TWSC	33.1 (WB)	D	352.5 (WB)	F	No
18	Brentwood Blvd. @ Central Blvd./Sycamore Ave.	Signal	0.322	A	0.520	A	N/A
20	Second St. @ Central Blvd.	Signal	0.485	A	0.478	A	N/A
21	Central Blvd. @ Walnut Blvd.	Signal	0.456	A	0.519	A	N/A
22	Brentwood Blvd. @ Pine St.	TWSC	9.6 (WB)	A	9.7 (WB)	A	No
23	Brentwood Blvd. @ Maple St.	TWSC	11.8 (WB)	B	12.6 (WB)	B	No
24	Brentwood Blvd. @ Oak St.	Signal	0.168	A	0.257	A	N/A
25	Oak St. @ Walnut Blvd.	Signal	0.511	A	0.501	A	N/A
26	Brentwood Blvd. @ Second St.	Signal	0.214	A	0.273	A	N/A
27	Brentwood Blvd. @ Chestnut St.	TWSC	10.3 (WB)	B	11.6 (WB)	B	No
28	Brentwood Blvd. @ Balfour Rd.	Signal	0.340	A	0.442	A	N/A
29	Sellers Ave. @ Sunset Rd.	AWSC	13.8	B	18.5	C	No

* Control delay for worst minor approach (worst minor movement) for TWSC.
1. Per the California Manual on Uniform Traffic Control Devices (CMUTCD), September 26, 2006, Sectrion 4C.

Table 14 – Cumulative plus Proposed Project Roadway Segment Levels of Service

#	Intersection	Facility Type	# of Lanes	AM Peak-Hour		PM Peak-Hour	
				PTSF (2 lane) pc/hr/ln (4 lane)[1]	LOS	PTSF (2 lane) pc/hr/ln (4 lane)[1]	LOS
1	Brentwood Blvd. between E. Sims Rd. and Delta Rd.*	Arterial	2	75.5%	E	81.6%	E
2	Brentwood Blvd. Grant St./Sunset Rd. Sunset Ct.*	Arterial	2	83.1%	E	90.8%	E
3	Brentwood Blvd. between Central Blvd. and Spruce St.*	Arterial	4	162 / 185	A / A	356 / 227	A / A
4	Brentwood Blvd. between Oak Ave. and Pine Ave.*	Arterial	4	163 / 89	A / A	146 / 178	A / A
5	Delta Rd. east of Brentwood Blvd.**	Collector	2	51.7%	B	54.9%	B
6	Lone Tree Wy. west of Brentwood Blvd.**	Arterial	4	520 / 479	A / A	619 / 670	B / B
7	Sunset Rd. east of Brentwood Blvd.**	Collector	2	62.7%	C	63.6%	C
8	Central Blvd. west of Brentwood Blvd.**	Arterial	4	326 / 221	A / A	301 / 584	A / B
9	Grant St. west of Brentwood Blvd.**	Collector	2	54.0%	B	43.5%	B
10	Sycamore Ave. east of Brentwood Blvd.**	Collector	2	60.0%	C	61.4%	C

Source: *Highway Capacity Manual, 2000.*
[1] PTSF = Percent Time Spent Following, pc/hr/ln = passenger cars per hour per lane.
* Results for this roadway segment are presented in **NB / SB** format (where applicable).
** Results for this roadway segment are presented in **EB / WB** format (where applicable).

IMPACTS AND MITIGATION

Standards of Significance

Impacts to intersections are created when traffic associated with the proposed project causes the intersection, which operates at acceptable LOS without the proposed project, to fall below a specific threshold. Per the City's General Plan[16], the City must "maintain a level of service standard of 'D' or better throughout the vehicular street system." Furthermore, according to the General Plan, a significant impact would occur if the addition of the proposed project results in any of the following:

- Causes LOS at a signalized intersection to deteriorate from an acceptable level (LOS D or better with a V/C ratio equal to or less than 0.85) to an unacceptable level (LOS D or worse with a V/C ratio greater than 0.85);
- Causes the V/C ratio at a signalized intersection operating at an unacceptable level (V/C ratio greater than 0.85) to increase by more than 0.01;
- Causes LOS at an unsignalized intersection to degrade to worse than mid-LOS D (average delay of 30 seconds per vehicle) or causes an unsignalized intersection to meet traffic signal warrants based on

[16] *City of Brentwood General Plan, 2001-2021,* Circulation Element, January 2006.

Warrant 3B (peak-hour volume warrant) as presented in the *California Manual of Uniform Traffic Control Devices (CMUTCD)*, dated September 26, 2006;
- Conflicts with existing, planned, or possible future transit, bicycle, and/or pedestrian facilities and services;
- Conflicts or creates demand for public transit services above that which is provided, or planned;
- The path of travel between the project area and transit stops would not meet current California Title 24 handicap accessibility standards; or
- Does not provide connections to bicycle and pedestrian circulation systems of the surrounding area.

Traffic Service Objectives (TSOs) have been developed by the East County Regional Transportation Committee known as TRANSPLAN. TRANSPLAN has included TSOs within the East County Action Plan and defines a significant impact threshold of LOS E for unsignalized intersections along SR-4 (non-freeway segments) between SR-160 and Balfour Road[17].

Existing plus Approved Projects plus Proposed Project Conditions

Intersections

Brentwood Boulevard @ Lone Tree Way

Impact
As shown in Table 9, the addition of the project trips causes this signalized intersection to degrade from LOS A to LOS F during both AM and PM peak-hours. ***This is a significant impact.***

Mitigation

The significant impact at this intersection can be mitigated with lane modifications which include the addition of a left turn and through lane to the northbound approach, resulting in two left turn lanes, two through lanes, and a right turn lane. At the southbound approach, the existing through-right lane should be converted to a through lane and a right turn lane should be added, resulting in one left turn lane, two through lanes, and a right turn lane. In addition, the eastbound and westbound approaches should be modified by converting the existing through-right lanes to through lanes and adding a right turn lane, resulting in a left turn lane, a through lane, and a right turn lane. Additionally, the eastbound right turn lane should be constructed with free movement. As shown in Table 15, incorporation of these lane modifications results in the intersection operating at LOS C and LOS D during the AM and PM peak-hours, respectively. Therefore, ***this impact is less than significant.***

Figure 13 illustrates these recommended lane modifications.

It should be noted that future project applicants within the Brentwood Boulevard Specific Plan boundaries, shall be required to pay the applicable Transportation Development Fee prior to the issuance of building permits or building occupancy. Additionally project specific impacts will be determined and required project improvements will be constructed and/or funded by the various developments to adequately mitigate project impacts.

[17] Per letter from John Sighamony, TRANSPLAN, September 25, 2007.

Arroyo Seco Road at Lone Tree Way

Impact
As shown in Table 9, the addition of the project trips caused this unsignalized intersection, which operates at LOS A during the AM peak hour without the project, to degrade to LOS E. ***This is a significant impact.***

Mitigation
The significant impact at this intersection can be mitigated with four way stop control. As shown in Table 15, the addition of four way stop control results in the intersection operating at LOS B during the AM peak hour and LOS A during the PM peak hour.

It should be noted future project applicants within the Brentwood Boulevard Specific Plan boundaries, shall be required to pay the applicable Transportation Development Fee prior to the issuance of building permits or building occupancy. Additionally project specific impacts will be determined and required project improvements will be constructed and/or funded by the various developments to adequately mitigate project impacts.

As a result of the above, ***this impact is less than significant.***

Brentwood Boulevard at Sunrise Drive

Impact
As shown in Table 9, the addition of the project trips causes this unsignalized intersection to satisfy the peak-hour traffic signal warrant. ***This is a significant impact.***

Mitigation

Operations at this intersection can be improved with signalized traffic control and lane modifications. The lane modifications include the addition of a northbound through lane, resulting in a left turn lane and two through lanes. At the southbound approach, the existing through-right lane should be converted to a through lane, and through lane and a right turn lane should be added, resulting in two through lanes and a right turn lane. The eastbound approach should be modified to include two left turn lanes and a right turn lane. As shown in Table 15, the traffic control and lane modifications results in the intersection operating at LOS C and LOS D (v/c of 0.898) during the AM and PM peak-hours, respectively. The impact noted above does not consider the effects of the SR-4 Bypass or the proposed project replacing existing land uses within the project area. Both of these events is expected to reduce the volumes on up to 22%. With the opening of the Bypass and the replacement of existing land uses, the impact is ***less than significant***.

Figure 13 illustrates these recommended lane modifications.

It should be noted that future project applicants within the Brentwood Boulevard Specific Plan boundaries, shall be required to pay the applicable Transportation Development Fee prior to the issuance of building permits or building occupancy. Additionally project specific impacts will be determined and required project improvements will be constructed and/or funded by the various developments to adequately mitigate project impacts.

Brentwood Boulevard at Gregory Lane

Impact
As shown in Table 9, the addition of the project trips causes the LOS to change from LOS D to LOS F in the AM peak-hour. In addition, the intersection operates at LOS F during the PM peak-hour without the project

and the project causes the intersection to satisfy the peak-hour traffic signal warrant. ***This is a significant impact.***

Mitigation
Traffic operations at this location can be improved by restricting access to Gregory Lane to right-in and right-out only. Restricting left turns results in redistribution of volumes, which is shown in Figure 14. The redirection of left turns resulted in the intersection failing to meet signal warrants in either the AM or PM peak hours. The reconfiguration of the intersection includes removal of the left turn lane and addition of a thru lane at the northbound approach, resulting in two through lanes. At the southbound approach, a through lane and a right turn lane should be added resulting in a two through lanes and right turn lane. At the eastbound approach, left turns should be restricted, resulting in a right turn only lane. As shown in Table 15, the traffic control and lane modifications results in the intersection operating at LOS C and LOS F (62 second delay) during the AM and PM peak-hours, respectively. The impact noted above does not consider the effects of the SR-4 Bypass or the proposed project replacing existing land uses within the project area. Both of these events is expected to reduce the volumes up to 22%. With the opening of the Bypass and the replacement of existing land uses, the impact is ***less than significant***.

Figure 13 illustrates these recommended lane modifications.

It should be noted that future project applicants within the Brentwood Boulevard Specific Plan boundaries, shall be required to pay the applicable Transportation Development Fee prior to the issuance of building permits or building occupancy. Additionally project specific impacts will be determined and required project improvements will be constructed and/or funded by the various developments to adequately mitigate project impacts.

Brentwood Boulevard at Homecoming Way

Impact
As shown in Table 9, the addition of the project trips causes this unsignalized intersection, which operates at LOS F during the AM and PM peak-hours without the project, to satisfy the peak-hour traffic signal warrant for both peak-hours. ***This is a significant impact.***

Mitigation

Operations at this intersection can be improved by restricting access to Homecoming Way to right-in and right-out only. Restricting left turns results in redistribution of volumes, which is shown in Figure 14. The redirection of left turns resulted in the intersection failing to meet signal warrants in either the AM or PM peak hours. The reconfiguration of the intersection includes the addition of a through lane at the northbound approach, resulting in a through lane and a through-right lane. At the southbound approach, the left turn lane should be removed and a through lane should be added, resulting in two through lanes. At the westbound approach, left turns should be restricted, resulting in a right turn only lane. As shown in Table 15, the traffic control and lane modifications results in the intersection operating at LOS E during both the AM (36 second delay) and PM (38 second delay) peak-hours. The impact noted above does not consider the effects of the SR-4 Bypass or the proposed project replacing existing land uses within the project area. Both of these events is expected to reduce the volumes up to 22%. With the opening of the Bypass and the replacement of existing land uses, the impact is ***less than significant***.

Figure 13 illustrates these recommended lane modifications.

It should be noted that future project applicants within the Brentwood Boulevard Specific Plan boundaries, shall be required to pay the applicable Transportation Development Fee prior to the issuance of building permits or building occupancy. Additionally project specific impacts will be determined and required project improvements will be constructed and/or funded by the various developments to adequately mitigate project impacts.

Brentwood Boulevard at Grant Street / Sunset Road

Impact
As shown in Table 9, the addition of the project trips causes this signalized intersection to degrade from LOS C to LOS F during the AM peak-hour. Additionally, the intersection operates below LOS D without the project during the PM peak- hour and the addition of project trips causes the volume to capacity ratio to increase by more than .01. ***This is a significant impact.***

Mitigation
The significant impact at this intersection can be mitigated with lane modifications which include the addition of a through lane at the northbound approach, resulting in one left turn lane, two through lanes, and a right turn lane. At the southbound approach, the existing through-right lane should be converted to a through lane, and a left turn lane, a through lane, and a right turn lane should be added, resulting in two left turn lanes, two through lanes, and a right turn lane. Also, a left turn lane and a right turn lane should be added at the eastbound approach, resulting in a left turn lane, a through lane, and a right turn lane. At the westbound approach, the existing through-left lane should be converted to a through lane. Also, two left turn lanes should be added at the westbound approach, resulting in two left turn lanes, a through lane, and a right turn lane. As shown in Table 15, the traffic control and lane modifications results in the intersection operating at LOS C during the AM peak hour and LOS D during the PM peak-hour. Therefore, ***this impact is less than significant***.

Figure 13 illustrates these recommended lane modifications.

It should be noted that future project applicants within the Brentwood Boulevard Specific Plan boundaries, shall be required to pay the applicable Transportation Development Fee prior to the issuance of building permits or building occupancy. Additionally project specific impacts will be determined and required project improvements will be constructed and/or funded by the various developments to adequately mitigate project impacts.

Brentwood Boulevard at Sunset Court

Impact
As shown in Table 9, the addition of the project trips causes this unsignalized intersection to degrade from LOS C to LOS F during the AM peak-hour, and from LOS D to LOS F during the PM peak-hour. ***This is a significant impact.***

Mitigation

The significant impact at this intersection can be partially mitigated by restricting access to Sunset Court to right-in and right-out only. Restricting left turns results in redistribution of volumes, which is shown in Figure 14. The reconfiguration of the intersection includes addition of a through lane to the northbound approach, resulting in a through lane and a through right lane. At the southbound approach, the left turn lane should be removed and a through lane added, resulting in two through lanes. As shown in Table 15, the traffic control and lane modifications results in the intersection operating at LOS D (32 second delay) during the AM peak

hour and LOS E (44 second delay) during the PM peak hour. The impact noted above does not consider the effects of the SR-4 Bypass or the proposed project replacing existing land uses within the project area. Both of these events is expected to reduce the volumes by up to 22%. With the opening of the Bypass and the replacement of existing land uses, the impact is ***less than significant***.

Figure 13 illustrates these recommended lane modifications.
It should be noted that future project applicants within the Brentwood Boulevard Specific Plan boundaries, shall be required to pay the applicable Transportation Development Fee prior to the issuance of building permits or building occupancy. Additionally project specific impacts will be determined and required project improvements will be constructed and/or funded by the various developments to adequately mitigate project impacts.

Brentwood Boulevard at Havenwood Avenue

Impact
As shown in Table 9, the addition of the project trips causes this unsignalized intersection, which operates at LOS F during the AM and PM peak-hours without the project, to satisfy the peak-hour traffic signal warrant for both peak-hours. ***This is a significant impact.***

Mitigation

The significant impact at this intersection can be partially mitigated by restricting access to Havenwood Avenue to right-in and right-out only. Restricting left turns results in redistribution of volumes, which is shown in Figure 14. The redirection of left turns resulted in the intersection failing to meet signal warrants in either the AM or PM peak hours. The reconfiguration of the intersection includes removal of the existing left turn lane and addition of a through lane at the northbound approach, resulting in two through lanes and a right turn lane. At the southbound approach, the existing left turn lane should be removed and a through lane should be added, resulting in a through lane and a through-right lane. At both the eastbound and westbound approaches, left turns should be restricted to result in right turn only lanes. As shown in Table 15, the traffic control and lane modifications results in the intersection operating at LOS E during the AM (35 second delay) and PM (43 second delay) peak hours, respectively. The impact noted above does not consider the effects of the SR-4 Bypass or the proposed project replacing existing land uses within the project area. Both of these events is expected to reduce the volumes up to 22%. With the opening of the Bypass and the replacement of existing land uses, the impact is ***less than significant***.

Figure 13 illustrates these recommended lane modifications.

Brentwood Boulevard at Applewood Common

Impact
As shown in Table 9, the addition of the project trips causes this signalized intersection to degrade from LOS B to LOS F during the AM peak-hour, and degrades operations during the PM peak-hour from an unacceptable LOS D to LOS F. ***This is a significant impact.***

Mitigation

The significant impact at this intersection can be mitigated with lane modifications which include adding a through lane to the northbound approach, resulting in one left turn lane, two through lanes, and one right turn lane. At the southbound approach, the existing through-right lane should be converted to a through lane, and a through lane and a right turn lane should be added, resulting in one left turn lane, two through lanes, and one right turn lane. At the eastbound approach, the existing through-right lane should be converted to a

through lane, and a right turn lane should be added, resulting in a left turn lane, a through lane, and a right turn lane. At the westbound approach, the existing through-right lane should be converted to a through lane, and a left turn lane and a right turn lane should be added, resulting in two left turn lanes, one through lane, and a right turn lane. As shown in Table 15, incorporation of these lane modifications results in the intersection operating at LOS C and LOS D during the AM and PM peak-hours, respectively. The impact noted above does not consider the effects of the SR-4 Bypass or the proposed project replacing existing land uses within the project area. Both of these events is expected to reduce the volumes up to 22%. Therefore, ***this impact is less than significant.***

Figure 13 illustrates these recommended lane modifications.

It should be noted that future project applicants within the Brentwood Boulevard Specific Plan boundaries, shall be required to pay the applicable Transportation Development Fee prior to the issuance of building permits or building occupancy. Additionally project specific impacts will be determined and required project improvements will be constructed and/or funded by the various developments to adequately mitigate project impacts.

Brentwood Boulevard at Sand Creek Road

Impact
As shown in Table 9, the addition of the project trips causes this signalized intersection to degrade from LOS A to LOS F during the AM and PM peak-hours. ***This is a significant impact.***

Mitigation
The significant impact at this intersection can be mitigated with lane modifications which include the addition of a right turn lane to the northbound approach, assuming that Sand Creek Road will be extended to the east as needed for project access. This will result in a left turn lane, two through lanes, and a right turn lane at the northbound approach. Also, the existing through-right lane should be converted to a through lane, and a right turn lane should be added at the southbound approach, resulting in a left turn lane, two through lanes, and a right turn lane. A left-turn lane and two through lanes should be added at the eastbound approach, resulting in two left turn lanes, two through lanes, and a right turn lane. A left turn lane, a through lane, a through-right lane, and a right turn lane are assumed at the westbound approach, which does not currently exist. As shown in Table 15, incorporation of these lane modifications results in the intersection operating at LOS C and LOS D during the AM and PM peak-hours, respectively. Therefore, ***this impact is less than significant***.

Figure 13 illustrates these recommended lane modifications.

It should be noted that future project applicants within the Brentwood Boulevard Specific Plan boundaries, shall be required to pay the applicable Transportation Development Fee prior to the issuance of building permits or building occupancy. Additionally project specific impacts will be determined and required project improvements will be constructed and/or funded by the various developments to adequately mitigate project impacts.

Brentwood Boulevard at Village Drive

Impact
As shown in Table 9, the addition of the project trips causes this unsignalized intersection, which operates at LOS E and LOS F during the AM and PM peak-hours, respectively, without the project, to satisfy the peak-hour traffic signal warrant. ***This is a significant impact.***

Mitigation

The significant impact at this intersection can be mitigated by restricting access to Village Drive to right-in and right-out only. Restricting left turns results in redistribution of volumes, which is shown in Figure 14. The redirection of left turns resulted in the intersection failing to meet signal warrants in either the AM or PM peak hours. The reconfiguration of the intersection includes addition of a through lane at the northbound approach, resulting in a through lane and a through-right lane. At the southbound approach, the left turn lane should be removed, resulting in a single through lane. The westbound approach should be restricted to right turns only. As shown in Table 15, the lane modifications results in the intersection operating at LOS C during the AM and PM peak hours. Therefore, ***this impact is less than significant.***

Figure 13 illustrates these recommended lane modifications.

It should be noted that future project applicants within the Brentwood Boulevard Specific Plan boundaries, shall be required to pay the applicable Transportation Development Fee prior to the issuance of building permits or building occupancy. Additionally project specific impacts will be determined and required project improvements will be constructed and/or funded by the various developments to adequately mitigate project impacts.

Brentwood Boulevard at Central Boulevard / Sycamore Avenue

Impact

As shown in Table 9, the addition of the project trips causes this signalized intersection to degrade from LOS A to LOS E during the AM peak-hour, and from LOS C to LOS E during the PM peak-hour. ***This is a significant impact.***

Mitigation

The significant impact at this intersection can be mitigated with lane modifications of the northbound approach which include converting the existing right turn lane into a through-right lane, resulting in a left turn lane, a through lane, and a through-right lane. As shown in Table 15, incorporation of this lane modification results in the intersection operating at LOS B during the AM and PM peak-hours. Therefore, ***this impact is less than significant.***

Figure 13 illustrates these recommended lane modifications.

It should be noted that future project applicants within the Brentwood Boulevard Specific Plan boundaries, shall be required to pay the applicable Transportation Development Fee prior to the issuance of building permits or building occupancy. Additionally project specific impacts will be determined and required project improvements will be constructed and/or funded by the various developments to adequately mitigate project impacts.

Brentwood Boulevard at Pine Street

Impact

As shown in Table 9, the addition of project trip causes this signalized intersection to degrade from LOS C in the PM peak hour to LOS E. ***This is a significant impact.***

Mitigation
The significant impact at this intersection can be mitigated by restricting access to Pine Street to right-in and right-out only. Restricting left turns results in redistribution of volumes, which is shown in Figure 14. The reconfiguration of the intersection includes restriction of left turns at southbound and westbound approaches. This results in two through lanes for the southbound approach, and a right turn lane for the westbound approach. As shown in Table 15, incorporation of these lane modification results in the intersection operating at LOS B during the AM and PM peak-hours. Therefore, ***this impact is less than significant.***

Brentwood Boulevard at Chestnut Street

Impact
As shown in Table 9, the addition of the project trips causes this unsignalized intersection to degrade from LOS D to LOS F during the AM peak-hour. ***This is a significant impact.***

Mitigation
The significant impact at this intersection can be mitigated by restricting access to Chestnut Street to right-in and right-out only. Restricting left turns results in redistribution of volumes, which is shown in Figure 14. The reconfiguration of the intersection includes restriction of left turns at the southbound and westbound approaches, resulting in a through-right lane at the northbound approach, one through lane at the southbound approach, and a right turn only lane at the westbound approach. As shown in Table 15, incorporation of these lane modifications results in the intersection operating at LOS C during both the AM and PM peak-hours. Therefore, ***this impact is less than significant***.

It should be noted that future project applicants within the Brentwood Boulevard Specific Plan boundaries, shall be required to pay the applicable Transportation Development Fee prior to the issuance of building permits or building occupancy. Additionally project specific impacts will be determined and required project improvements will be constructed and/or funded by the various developments to adequately mitigate project impacts.

Brentwood Boulevard at Balfour Road

Impact
As shown in Table 9, the addition of the project trips causes this signalized intersection to degrade from LOS C to LOS E during the PM peak-hour. ***This is a significant impact.***

Mitigation
The significant impact at this intersection can be mitigated with lane modifications which include the addition of a northbound left turn lane resulting in two left turn lanes, two through lanes, and one right turn lane. As shown in Table 15, incorporation of this lane modification results in the intersection operating at LOS C during the PM peak-hour. Therefore, ***this impact is less than significant.***

Figure 13 illustrates this recommended lane modification.

It should be noted that future project applicants within the Brentwood Boulevard Specific Plan boundaries, shall be required to pay the applicable Transportation Development Fee prior to the issuance of building permits or building occupancy. Additionally project specific impacts will be determined and required project improvements will be constructed and/or funded by the various developments to adequately mitigate project impacts.

Roadway Segments

Lone Tree Way west of Brentwood Boulevard

Impact
As shown in Table 10, the addition of the project causes this study roadway segment, which operates at LOS C during both AM and PM peak-hours without the proposed project, to degrade to LOS E for both peak-hours. ***This is a significant impact.***

Mitigation
The significant impact along this roadway segment during the AM and PM peak-hours can be mitigated with conversion to a four lane roadway. As shown in Table 16, this improvement is expected to allow this study roadway segment to operate at LOS A or LOS B under both peak-hours and the impact will be ***less than significant***.

It should be noted that future project applicants within the Brentwood Boulevard Specific Plan boundaries, shall be required to pay the applicable Transportation Development Fee prior to the issuance of building permits or building occupancy. Additionally project specific impacts will be determined and required project improvements will be constructed and/or funded by the various developments to adequately mitigate project impacts.

Bicycle and Pedestrian Facilities
The City's General Plan states, "as roadways are widened and improved, the City is requiring designs incorporating six to eight-foot wide bike lanes…Sidewalks are part of the City's standard plans for arterial, collector, and local streets". Build-out of the specific plan land uses are expected to be required to include City's requirements that accomplish the above mentioned goals regarding the implementation of bicycle and pedestrian facilities. As a result, impacts would be expected to be ***less than significant.***

Transit Facilities
Tri Delta Transit has published a short range transit plan that provides information regarding ridership trends for it bus routes[18]. The short range plan indicates Route 391, which runs along Brentwood Boulevard has an average of 15.8 passengers per revenue hour and runs on 30 minute headways during the peak hour. Similarly, Route 300, which is an express route, has an average ridership of 9.8 passengers per revenue hour and operates on 20 minute headways. It is assumed buses operated on these routes have a seating capacity of 39 passengers. As such, the proposed project is not expected to exceed the capacity of the transit service and the impact is expected to be ***less than significant.***

Cumulative plus Proposed Project Conditions

Intersections

There were no significant impacts due to the addition of the project trips under this analysis scenario.

Roadway Segments

There were no significant impacts due to the addition of the project trips under this analysis scenario.

[18] *Tri Delta Transit Short Range Transit Plan FY 2005-2015, Final*, Eastern Contra Costa Transit Authority, January 2006.

Bicycle and Pedestrian Facilities

The City's General Plan states, "as roadways are widened and improved, the City is requiring designs incorporating six to eight-foot wide bike lanes…Sidewalks are part of the City's standard plans for arterial, collector, and local streets". Build-out of the specific plan land uses are expected to be required to include City's requirements that accomplish the abovementioned goals regarding the implementation of bicycle and pedestrian facilities. As a result, impacts would be expected to be ***less than significant.***

Transit Facilities

Tri Delta Transit has published a short range transit plan that notes "significant service expansion is warranted to address commute travel congestion on Highway 4 [and]…rapid development areas in…Brentwood…" The short range plan identifies the need to "refine and expand local routes in Brentwood…" prior to 2010. However, the plan also notes "estimated revenues are not sufficient to support system expansion." In addition, the Transit service to the City of Brentwood will be enhanced in 2010 with the expected opening of the eBART system. At such time, the #300 commuter route will be come redundant with the BART service[19]. As a result, of the eBART line, the short range plan recommends "BART feeder bus services, including Tri Delta Transit routes #300, #390 and #391 should be discontinued. The resources should be redeployed into local service to support existing routes as necessary and new feeder routes." Per City staff, eBART service to Hillcrest is expected no sooner than 2015.

As noted for the Existing Plus Approved Project Plus the Proposed Project Scenario, transit ridership is currently significantly below capacity. In addition, it is anticipated the adjustments to service will be based on ridership trends, including those in the project area. As a result, the impact of the project on transit services is expected to be ***less than significant***.

[19] *Tri Delta Transit Short Range Transit Plan FY 2005-2015, Final*, Eastern Contra Costa Transit Authority, January 2006.

Table 15 – Existing plus Approved Projects plus Proposed Project Intersection Levels of Service With Mitigations

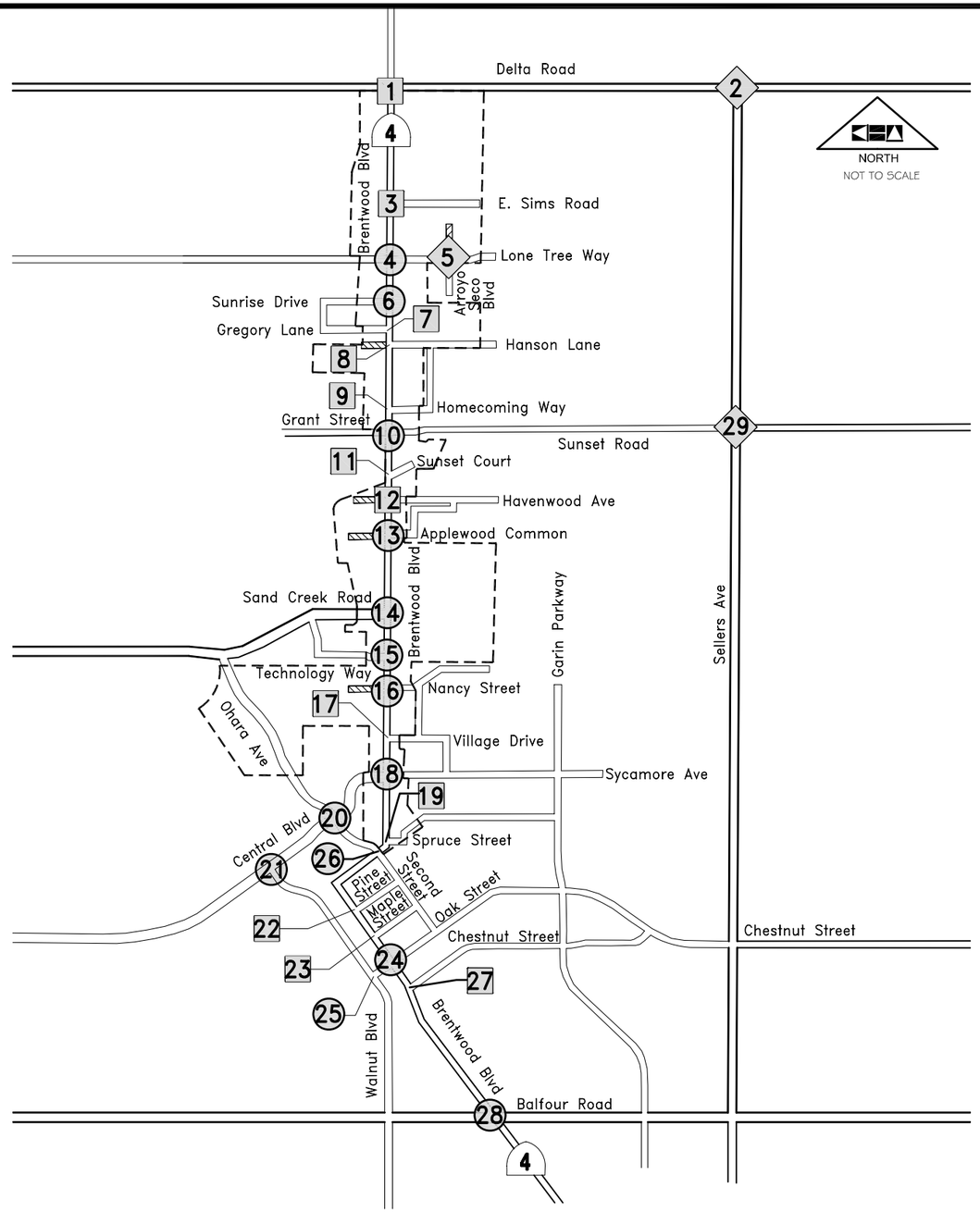
#	Intersection	Traffic Control	AM Peak-Hour		PM Peak-Hour		Meets Signal Warrant[1]
			Delay (sec.) or V/C ratio*	LOS	Delay (sec.) or V/C ratio*	LOS	
4	Brentwood Blvd. @ Lone Tree Wy.	Signal	0.720	C	0.800	D	N/A
5	Arroyo Seco Rd. @ Lone Tree Wy.	AWSC	13.3	B	9.8	A	No
6	Brentwood Blvd. @ Sunrise Dr.	Signal	0.748	C	0.898	D	N/A
7	Brentwood Blvd. @ Gregory Ln.	TWSC	19.5	C	62.6	F	No
9	Brentwood Blvd. @ Homecoming Wy.	TWSC	36.1	E	38.6	E	No
10	Brentwood Blvd. @ Grant St./Sunset Rd.	Signal	0.784	C	0.851	D	N/A
11	Brentwood Blvd. @ Sunset Ct.	TWSC	32.0	D	43.9	E	No
12	Brentwood Blvd. @ Havenwood Ave.	TWSC	35.3	E	42.8	E	No
13	Brentwood Blvd. @ Applewood Common	Signal	0.714	C	0.840	D	N/A
14	Brentwood Blvd. @ Sand Creek Rd.	Signal	0.762	C	0.847	D	N/A
17	Brentwood Blvd. @ Village Dr.	TWSC	18.4	C	22.3	C	No
18	Brentwood Blvd. @ Central Blvd./Sycamore Ave.	Signal	0.644	B	0.675	B	N/A
22	Brentwood Blvd. @ Pine St.	TWSC	13.9	B	13.5	B	No
27	Brentwood Blvd. @ Chestnut St.	TWSC	19.6	C	18.0	C	No
28	Brentwood Blvd. @ Balfour Rd.	Signal	0.623	B	0.772	C	N/A

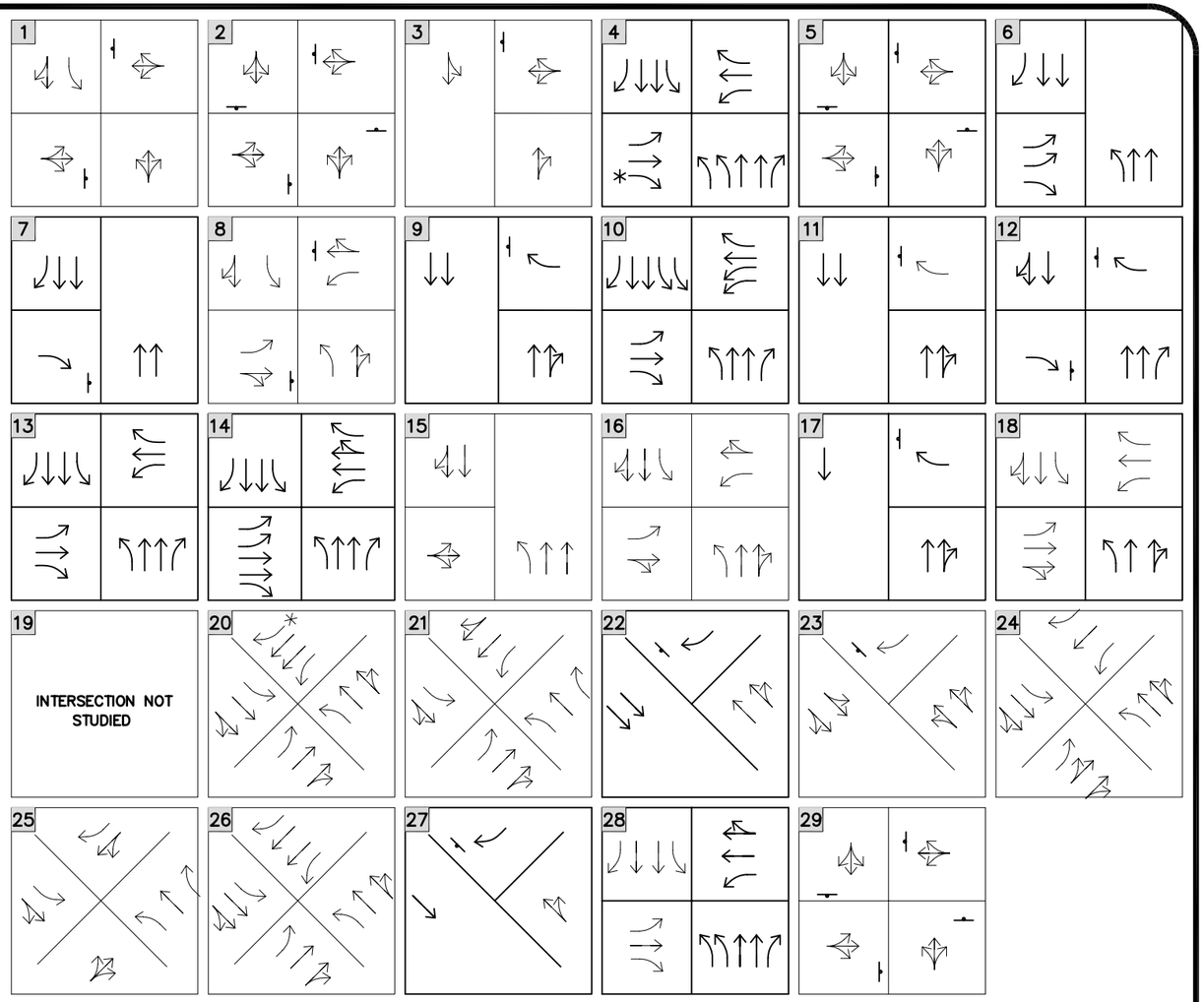
* Control delay for worst minor approach (worst minor movement) for TWSC.
1. Per the California Manual on Uniform Traffic Control Devices (CMUTCD), September 26, 2006, Sectrion 4C.

Table 16 - Existing plus Approved Projects plus Proposed Project Segment Levels of Service With Mitigations

#	Intersection	Facility Type	# of Lanes	AM Peak-Hour		PM Peak-Hour	
				PTSF (2 lane) pc/hr/ln (4 lane)[1]	LOS	PTSF (2 lane) pc/hr/ln (4 lane)[1]	LOS
6	Lone Tree Wy. west of Brentwood Blvd.**	Arterial	4	524 / 456	B / A	402 / 573	A / B

Source: *Highway Capacity Manual, 2000.*
[1] PTSF = Percent Time Spent Following, pc/hr/ln = passenger cars per hour per lane.





LEGEND

- 2-WAY STOP CONTROLLED STUDY INTERSECTIONS
- ALL-WAY STOP CONTROLLED STUDY INTERSECTIONS
- SIGNALIZED STUDY INTERSECTIONS
- FREE RIGHT TURN
- PROJECT BOUNDARY
- ACCESS ROAD WITH PROJECT

Kimley-Horn and Associates, Inc.

FIGURE 13

EXISTING PLUS APPROVED PROJECTS PLUS PROPOSED PROJECT MITIGATIONS

BRENTWOOD BOULEVARD SPECIFIC PLAN
BRENTWOOD, CA

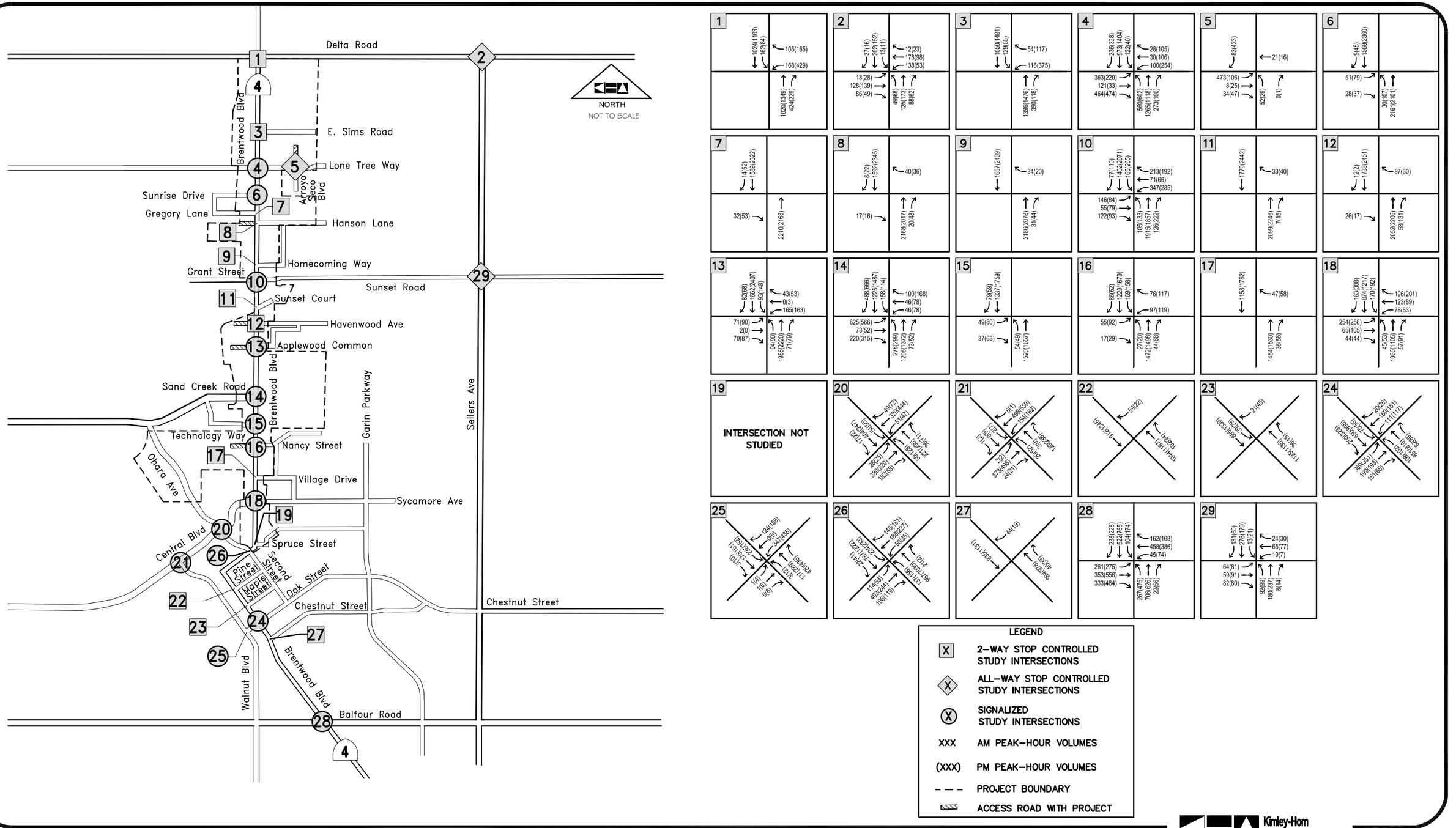


FIGURE 14

EXISTING PLUS APPROVED PROJECT PLUS PROPOSED PROJECT PEAK-HOUR TRAFFIC VOLUMES WITH MITIGATIONS

BRENTWOOD BOULEVARD SPECIFIC PLAN
BRENTWOOD, CA

CONCLUSIONS

Based upon the analysis documented in this report, the following conclusions are offered:

- The proposed project is expected to generate 31,202 daily trips, including 3,704 AM peak-hour trips and 4,072 PM peak-hour trips.

- The addition of the Proposed Project to the Existing plus Approved Projects Conditions results in a significant impact at fourteen study intersections and one study roadway segment. These impacts can be mitigated to be ***less than significant.***

- The addition of the Proposed Project to the Cumulative Conditions does not result in any significant impacts.

- The addition of the Proposed Project to Existing plus Approved Projects and Cumulative Conditions is not expected to result in any significant impacts to bicycle, pedestrian, or transit facilities.

Appendix A:

Analysis Worksheets for Existing Conditions

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Brentwood Blvd. @ Delta Road

Average Delay (sec/veh): 5.8 Worst Case Level Of Service: E[48.0]

Street Name:	Brentwood Blvd.						Delta Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 0 1 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	596	39	68	499	0	0	0	0	63	0	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	596	39	68	499	0	0	0	0	63	0	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.91	0.91	0.91
PHF Volume:	0	661	43	76	556	0	0	0	0	70	0	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	661	43	76	556	0	0	0	0	70	0	98
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	7.1	6.5	6.2	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	704	xxxx	xxxxx	1439	1412	556	1390	1390	682
Potent Cap.:	xxxx	xxxx	xxxxx	858	xxxx	xxxxx	111	138	530	157	142	450
Move Cap.:	xxxx	xxxx	xxxxx	858	xxxx	xxxxx	81	126	530	146	130	450
Volume/Cap:	xxxx	xxxx	xxxx	0.09	xxxx	xxxx	0.00	0.00	0.00	0.48	0.00	0.22
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	9.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0	xxxxx	xxxx	242	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	4.6	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	48.0	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	E	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			48.0		
ApproachLOS:	*			*			*			E		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 Sellers Ave @ Delta

Cycle (sec):	100	Critical Vol./Cap.(X):	0.410
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.6
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Sellers Ave.						Delta Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	44	125	69	13	202	37	18	107	85	110	123	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	44	125	69	13	202	37	18	107	85	110	123	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	44	125	69	13	202	37	18	107	85	110	123	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	125	69	13	202	37	18	107	85	110	123	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	44	125	69	13	202	37	18	107	85	110	123	12
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.18	0.53	0.29	0.05	0.80	0.15	0.09	0.51	0.40	0.45	0.50	0.05
Final Sat.:	114	324	179	32	493	90	52	311	247	268	300	29
Capacity Analysis Module:												
Vol/Sat:	0.39	0.39	0.39	0.41	0.41	0.41	0.34	0.34	0.34	0.41	0.41	0.41
Crit Moves:		****		****					****	****		
Delay/Veh:	11.4	11.4	11.4	11.8	11.8	11.8	10.9	10.9	10.9	12.1	12.1	12.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.4	11.4	11.4	11.8	11.8	11.8	10.9	10.9	10.9	12.1	12.1	12.1
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	B
ApproachDel:	11.4			11.8			10.9			12.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	11.4			11.8			10.9			12.1		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	0.5	0.5	0.5	0.6	0.6	0.6	0.4	0.4	0.4	0.6	0.6	0.6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Brentwood Blvd. @ E. Sims Road

Average Delay (sec/veh): 2.3 Worst Case Level Of Service: D[30.7]

Street Name:	Brentwood Blvd.									E. Sims Road								
Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1!	0	0
Volume Module:																				
Base Vol:	0	606		26		21	528		0		0		0			44		0		35
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00			1.00		1.00		1.00
Initial Bse:	0	606		26		21	528		0		0		0			44		0		35
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00			1.00		1.00		1.00
PHF Adj:	0.94	0.94		0.94		0.87	0.87		0.87		1.00		1.00			0.79		0.79		0.79
PHF Volume:	0	645		28		24	604		0		0		0			56		0		44
Reduct Vol:	0	0		0		0	0		0		0		0			0		0		0
FinalVolume:	0	645		28		24	604		0		0		0			56		0		44
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx		4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx		6.4		6.5		6.2				
FollowUpTim:	xxxxx	xxxx	xxxxx		2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx		3.5		4.0		3.3				
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx		672	xxxx	xxxxx	xxxx	xxxx	xxxxx		1311		1311		659				
Potent Cap.:	xxxx	xxxx	xxxxx		882	xxxx	xxxxx	xxxx	xxxx	xxxxx		175		159		464				
Move Cap.:	xxxx	xxxx	xxxxx		882	xxxx	xxxxx	xxxx	xxxx	xxxxx		172		154		464				
Volume/Cap:	xxxx	xxxx	xxxx		0.03	xxxx	xxxx	xxxx	xxxx	xxxx		0.32		0.00		0.10				
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx		0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx		xxxx		xxxx		xxxxx				
Control Del:	xxxxx	xxxx	xxxxx		9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx		xxxxx		xxxx		xxxxx				
LOS by Move:	*	*	*		A	*	*	*	*	*		*		*		*				
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx		238	xxxxx				
SharedQueue:	xxxxx	xxxx	xxxxx		0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx		2.0	xxxxx						
Shrd ConDel:	xxxxx	xxxx	xxxxx		9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx		30.7	xxxxx						
Shared LOS:	*	*	*		A	*	*	*	*	*	*		D	*						
ApproachDel:	xxxxxx				xxxxxx			xxxxxx			30.7									
ApproachLOS:	*				*			*			D									

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #4 Brentwood Blvd @ Lone Tree Way (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.462
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	A

Street Name:	Brentwood Blvd						Lone Tree Way (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	1 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	206	359	17	11	531	196	135	8	93	39	10	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	206	359	17	11	531	196	135	8	93	39	10	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	206	359	17	11	531	196	135	8	93	39	10	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	206	359	17	11	531	196	135	8	93	39	10	9
RTOR Reduct:	0	0	17	0	0	0	0	0	93	0	0	9
RTOR Vol:	206	359	0	11	531	196	135	8	0	39	10	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	206	359	0	11	531	196	135	8	0	39	10	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.46	0.54	0.94	0.06	1.00	0.80	0.20	1.00
Final Sat.:	1650	1650	1650	1650	2410	890	1558	92	1650	1313	337	1650
Capacity Analysis Module:												
Vol/Sat:	0.12	0.22	0.00	0.01	0.22	0.22	0.09	0.09	0.00	0.03	0.03	0.00
Crit Volume:	206					364		143			49	
Crit Moves:	****					****		****			****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Arroyo Seco Road @ Lone Tree Way

Average Delay (sec/veh): 5.0 Worst Case Level Of Service: A[8.8]

Street Name:	Arroyo Seco Road						Lone Tree Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0	0 0	0	0 0	0 0	0	0 0	0 1	0	0 0	1 0	0
Volume Module:												
Base Vol:	52	0	0	0	0	0	0	2	34	0	4	0
Growth Adj:	1.00 1.00	1.00	1.00 1.00	1.00		1.00 1.00	1.00	1.00	1.00 1.00	1.00		
Initial Bse:	52	0	0	0	0	0	0	2	34	0	4	0
User Adj:	1.00 1.00	1.00	1.00 1.00	1.00		1.00 1.00	1.00	1.00	1.00 1.00	1.00		
PHF Adj:	1.00 1.00	1.00	1.00 1.00	1.00		1.00 1.00	1.00	1.00	1.00 1.00	1.00		
PHF Volume:	52	0	0	0	0	0	0	2	34	0	4	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	52	0	0	0	0	0	0	2	34	0	4	0
Critical Gap Module:												
Critical Gp:	6.4 xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
FollowUpTim:	3.5 xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Capacity Module:												
Cnflict Vol:	23 xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
Potent Cap.:	993 xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
Move Cap.:	993 xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
Volume/Cap:	0.05 xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	
Level Of Service Module:												
2Way95thQ:	0.2 xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
Control Del:	8.8 xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR	- RT	LT - LTR	- RT	LT - LTR	- RT	LT - LTR	- RT	LT - LTR	- RT		
Shared Cap.:	xxxx xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	8.8		xxxxxx		xxxxxx		xxxxxx					
ApproachLOS:	A		*		*		*					

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #6 Brentwood Blvd. @ Sunrise Drive

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: D[25.3]

Street Name:	Brentwood Blvd.									Sunrise Dr.								
Approach:	North Bound						South Bound						East Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign					
Rights:	Include						Include						Include					
Lanes:	1	0	1	0	0		0	0	1	0	0		0	0	1!	0	0	
Volume Module:																		
Base Vol:	2	683		0			0	704		0			7		0		8	
Growth Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00		1.00		1.00	
Initial Bse:	2	683		0			0	704		0			7		0		8	
User Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00		1.00		1.00	
PHF Adj:	0.87	0.87		0.87			0.93	0.93		0.93			0.75		0.75		0.75	
PHF Volume:	2	790		0			0	760		0			9		0		11	
Reduct Vol:	0	0		0			0	0		0			0		0		0	
FinalVolume:	2	790		0			0	760		0			9		0		11	
Critical Gap Module:																		
Critical Gp:	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx							6.4		6.5		6.2	
FollowUpTim:	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx							3.5		4.0		3.3	
Capacity Module:																		
Cnflict Vol:	760	xxxx	xxxxx	xxxx	xxxx	xxxxx							1554		1554		760	
Potent Cap.:	817	xxxx	xxxxx	xxxx	xxxx	xxxxx							124		113		406	
Move Cap.:	817	xxxx	xxxxx	xxxx	xxxx	xxxxx							124		113		406	
Volume/Cap:	0.00	xxxx	xxxx	xxxx	xxxx	xxxx							0.08		0.00		0.03	
Level Of Service Module:																		
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx							xxxx	xxxx	xxxxx		xxxx	
Control Del:	9.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx							xxxxx	xxxx	xxxxx		xxxxx	
LOS by Move:	A	*		*		*		*		*			*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx							xxxx		197	xxxxx	xxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx							xxxxx		0.3	xxxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx							xxxxx		25.3	xxxxx	xxxxx	
Shared LOS:	*		*		*		*		*		*				D		*	
ApproachDel:	xxxxxx			xxxxxx									25.3			xxxxxx		
ApproachLOS:	*			*									D			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Brentwood Blvd. @ Gregory Lane

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: D[26.1]

Street Name:	Brentwood Blvd.									Gregory Ln.					
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R			
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign					
Rights:	Include			Include			Include			Include					
Lanes:	1	0 0 1	0	1	0 0 1	0	0	0 1! 0	0	0	0 1! 0	0			
Volume Module:															
Base Vol:	6	705	0	0	713	6	6	0	7	0	0	0			
Growth Adj:	1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00				
Initial Bse:	6	705	0	0	713	6	6	0	7	0	0	0			
User Adj:	1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00				
PHF Adj:	0.88	0.88 0.88		0.93	0.93 0.93		0.65	0.65 0.65		1.00	1.00 1.00				
PHF Volume:	7	798	0	0	769	6	9	0	11	0	0	0			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
FinalVolume:	7	798	0	0	769	6	9	0	11	0	0	0			
Critical Gap Module:															
Critical Gp:	4.2	xxxx xxxxx		xxxxx	xxxx xxxxx		6.4	6.5	6.2	7.1	6.5	6.2			
FollowUpTim:	2.3	xxxx xxxxx		xxxxx	xxxx xxxxx		3.5	4.0	3.3	3.5	4.0	3.3			
Capacity Module:															
Cnflict Vol:	776	xxxx xxxxx		xxxx	xxxx xxxxx		1583	1583	772	1589	1587	798			
Potent Cap.:	806	xxxx xxxxx		xxxx	xxxx xxxxx		119	109	399	87	108	386			
Move Cap.:	806	xxxx xxxxx		xxxx	xxxx xxxxx		119	108	399	84	107	386			
Volume/Cap:	0.01	xxxx xxxx		xxxx	xxxx xxxx		0.08	0.00	0.03	0.00	0.00	0.00			
Level Of Service Module:															
2Way95thQ:	0.0	xxxx xxxxx		xxxx	xxxx xxxxx		xxxx	xxxx xxxxx		xxxx	xxxx xxxxx				
Control Del:	9.5	xxxx xxxxx		xxxxx	xxxx xxxxx		xxxxx	xxxx xxxxx		xxxxx	xxxx xxxxx				
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*			
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT					
Shared Cap.:	xxxx	xxxx xxxxx		xxxx	xxxx xxxxx		xxxx	191	xxxxx	xxxx	0	xxxxx			
SharedQueue:	xxxxx	xxxx xxxxx		xxxxx	xxxx xxxxx		xxxxx	0.3	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx xxxxx		xxxxx	xxxx xxxxx		xxxxx	26.1	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	D	*	*	*	*			
ApproachDel:	xxxxxx			xxxxxx			26.1			xxxxxx					
ApproachLOS:	*			*			D			*					

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Brentwood Blvd. @ Hanson Lane

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: D[31.3]

Street Name:	Brentwood Blvd.									Hanson Ln								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1!	0	0
Volume Module:																				
Base Vol:	0	683		8		21	699		0		0		0		0	19		0		25
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	0	683		8		21	699		0		0		0		0	19		0		25
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	0.91	0.91		0.91		0.83	0.83		0.83		1.00		1.00		1.00	0.92		0.92		0.92
PHF Volume:	0	747		9		25	843		0		0		0		0	21		0		27
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
FinalVolume:	0	747		9		25	843		0		0		0		0	21		0		27
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx		4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx		6.4		6.5		6.2				
FollowUpTim:	xxxxx	xxxx	xxxxx		2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx		3.5		4.0		3.3				
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx		756	xxxx	xxxxx		xxxx	xxxx	xxxxx		1645		1645		752			
Potent Cap.:	xxxx	xxxx	xxxxx		820	xxxx	xxxxx		xxxx	xxxx	xxxxx		109		99		410			
Move Cap.:	xxxx	xxxx	xxxxx		820	xxxx	xxxxx		xxxx	xxxx	xxxxx		107		96		410			
Volume/Cap:	xxxx	xxxx	xxxx		0.03	xxxx	xxxx		xxxx	xxxx	xxxx		0.19		0.00		0.07			
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx		0.1	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx		xxxx		xxxxx			
Control Del:	xxxxx	xxxx	xxxxx		9.5	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx		xxxx		xxxxx			
LOS by Move:	*	*	*		A	*	*		*	*	*		*		*		*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx		184		xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx		0.1	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx		1.0		xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx		9.5	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx		31.3		xxxxx			
Shared LOS:	*	*	*		A	*	*		*	*	*		*		D		*			
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				31.3							
ApproachLOS:	*				*				*				D							

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Brentwood Blvd. @ Homecoming Way

Average Delay (sec/veh): 0.9 Worst Case Level Of Service: D[27.9]

Street Name:	Brentwood Blvd.									Homecoming Way								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	1!	0	0
Volume Module:																				
Base Vol:	0	706		19		20	739		0		0		0			10		0		19
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00			1.00		1.00		1.00
Initial Bse:	0	706		19		20	739		0		0		0			10		0		19
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00			1.00		1.00		1.00
PHF Adj:	0.89	0.89		0.89		0.91	0.91		0.91		1.00		1.00			0.66		0.66		0.66
PHF Volume:	0	791		21		22	814		0		0		0			15		0		29
Reduct Vol:	0	0		0		0	0		0		0		0			0		0		0
FinalVolume:	0	791		21		22	814		0		0		0			15		0		29
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx		4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx		6.4		6.5		6.2				
FollowUpTim:	xxxxx	xxxx	xxxxx		2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx		3.5		4.0		3.3				
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx		812	xxxx	xxxxx	xxxx	xxxx	xxxxx		1659		1659		801				
Potent Cap.:	xxxx	xxxx	xxxxx		781	xxxx	xxxxx	xxxx	xxxx	xxxxx		107		98		384				
Move Cap.:	xxxx	xxxx	xxxxx		781	xxxx	xxxxx	xxxx	xxxx	xxxxx		105		95		384				
Volume/Cap:	xxxx	xxxx	xxxx		0.03	xxxx	xxxx	xxxx	xxxx	xxxx		0.14		0.00		0.08				
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx		0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx		xxxx		xxxx		xxxxx				
Control Del:	xxxxx	xxxx	xxxxx		9.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx		xxxxx		xxxx		xxxxx				
LOS by Move:	*	*	*		A	*	*	*	*	*		*		*		*				
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx		200		xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx		0.8		xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx		27.9		xxxxx
Shared LOS:	*	*	*			*	*	*			*	*	*			*		D		*
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					27.9				
ApproachLOS:	*					*					*					D				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #10 Brentwood Blvd. @ Grant Street / Sunset Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.628
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	61	Level Of Service:	B

Street Name:	Brentwood Blvd.						Grant Street / Sunset Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	0 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	51	628	76	63	551	51	35	53	46	146	65	119
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	51	628	76	63	551	51	35	53	46	146	65	119
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	51	628	76	63	551	51	35	53	46	146	65	119
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	628	76	63	551	51	35	53	46	146	65	119
RTOR Reduct:	0	0	76	0	0	0	0	0	0	0	0	63
RTOR Vol:	51	628	0	63	551	51	35	53	46	146	65	56
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	51	628	0	63	551	51	35	53	46	146	65	56
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.92	0.08	0.26	0.40	0.34	0.69	0.31	1.00
Final Sat.:	1650	1650	1650	1650	1510	140	431	653	566	1142	508	1650
Capacity Analysis Module:												
Vol/Sat:	0.03	0.38	0.00	0.04	0.36	0.36	0.08	0.08	0.08	0.13	0.13	0.03
Crit Volume:		628			63				134		211	
Crit Moves:		****			****				****		****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Brentwood Blvd. @ Sunset Ct.

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: C[15.4]

Street Name:	Brentwood Blvd.						Sunset Ct.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 0 0 1		
Volume Module:												
Base Vol:	0	724	7	13	694	0	0	0	0	0	0	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	724	7	13	694	0	0	0	0	0	0	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.91	0.91	0.91	1.00	1.00	1.00	0.73	0.73	0.73
PHF Volume:	0	824	8	14	762	0	0	0	0	0	0	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	824	8	14	762	0	0	0	0	0	0	23
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	832	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	828
Potent Cap.:	xxxx	xxxx	xxxxx	767	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	371
Move Cap.:	xxxx	xxxx	xxxxx	767	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	371
Volume/Cap:	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.06
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.2
Control Del:	xxxxx	xxxx	xxxxx	9.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	15.4
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	C
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			15.4		
ApproachLOS:	*			*			*			C		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Brentwood Blvd. @ Havenwood Ave.

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: C[23.4]

Street Name:	Brentwood Blvd.									Havenwood Ave.								
Approach:	North Bound						South Bound			East Bound					West Bound			
Movement:	L	-	T	-	R		L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled						Uncontrolled			Stop Sign					Stop Sign			
Rights:	Include						Include			Include					Include			
Lanes:	1	0	1	0	1		1	0	0	1	0	0	0	0	0	1	0	0	1!	0	0
Volume Module:																					
Base Vol:	5		748		26		16		674		12	0		0		11	5		0		16
Growth Adj:	1.00		1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	5		748		26		16		674		12	0		0		11	5		0		16
User Adj:	1.00		1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	0.96		0.96		0.96		0.98		0.98		0.98	0.88		0.88		0.88	0.88		0.88		0.88
PHF Volume:	5		783		27		16		691		12	0		0		13	6		0		18
Reduct Vol:	0		0		0		0		0		0	0		0		0	0		0		0
FinalVolume:	5		783		27		16		691		12	0		0		13	6		0		18
Critical Gap Module:																					
Critical Gp:	4.2	xxxx	xxxxx				4.2	xxxx	xxxxx	xxxxx	xxxx					6.2	7.1		6.5		6.2
FollowUpTim:	2.3	xxxx	xxxxx				2.3	xxxx	xxxxx	xxxxx	xxxx					3.3	3.5		4.0		3.3
Capacity Module:																					
Cnflict Vol:	704	xxxx	xxxxx				810	xxxx	xxxxx		xxxx	xxxx				697	1530		1530		783
Potent Cap.:	858	xxxx	xxxxx				782	xxxx	xxxxx		xxxx	xxxx				441	96		117		394
Move Cap.:	858	xxxx	xxxxx				782	xxxx	xxxxx		xxxx	xxxx				441	91		114		394
Volume/Cap:	0.01	xxxx	xxxx				0.02	xxxx	xxxx		xxxx	xxxx				0.03	0.06		0.00		0.05
Level Of Service Module:																					
2Way95thQ:	0.0	xxxx	xxxxx				0.1	xxxx	xxxxx		xxxx	xxxx				0.1	xxxx		xxxx		xxxxx
Control Del:	9.2	xxxx	xxxxx				9.7	xxxx	xxxxx		xxxxx	xxxx				13.4	xxxxx		xxxx		xxxxx
LOS by Move:	A	*		*			A	*		*		*		*		B	*		*		*
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx		220		xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx		0.4		xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx		23.4		xxxxx
Shared LOS:	*		*		*		*		*		*	*		*		*	*		C		*
ApproachDel:	xxxxxx						xxxxxx					13.4					23.4				
ApproachLOS:	*						*					B					C				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #13 Brentwood Blvd. @ Applewood Common

Cycle (sec):	100	Critical Vol./Cap.(X):	0.484
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	A

Street Name:	Brentwood Blvd.						Applewood Common					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	13	723	38	18	623	7	16	2	18	37	0	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	13	723	38	18	623	7	16	2	18	37	0	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	13	723	38	18	623	7	16	2	18	37	0	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	723	38	18	623	7	16	2	18	37	0	23
RTOR Reduct:	0	0	37	0	0	0	0	0	0	0	0	0
RTOR Vol:	13	723	1	18	623	7	16	2	18	37	0	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	13	723	1	18	623	7	16	2	18	37	0	23
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.99	0.01	1.00	0.10	0.90	1.00	0.00	1.00
Final Sat.:	1650	1650	1650	1650	1632	18	1650	165	1485	1650	0	1650
Capacity Analysis Module:												
Vol/Sat:	0.01	0.44	0.00	0.01	0.38	0.38	0.01	0.01	0.01	0.02	0.00	0.01
Crit Volume:		723		18				20		37		
Crit Moves:		****		****				****		****		

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #14 Brentwood Blvd. @ Sand Creek Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.361
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	A

Street Name:	Brentwood Blvd.						Sand Creek Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	0	0	0
Lanes:	1 0	2 0	0	1 0	1 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	136	440	0	0	574	156	120	0	95	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	136	440	0	0	574	156	120	0	95	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	136	440	0	0	574	156	120	0	95	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	136	440	0	0	574	156	120	0	95	0	0	0
RTOR Reduct:	0	0	0	0	0	0	0	0	95	0	0	0
RTOR Vol:	136	440	0	0	574	156	120	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	136	440	0	0	574	156	120	0	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	1.00	1.57	0.43	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1720	3440	0	1720	2705	735	1720	0	1720	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.08	0.13	0.00	0.00	0.21	0.21	0.07	0.00	0.00	0.00	0.00	0.00
Crit Volume:	136				365		120				0	
Crit Moves:	****				****		****					

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #15 Brentwood Blvd. @ Technology Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.187
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	23	Level Of Service:	A

Street Name:	Brentwood Blvd.						Technology Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	6	6	0	6	6	4	4	4	0	0	0
Lanes:	1 0	2 0	0	0 0	1 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	17	580	0	0	585	8	8	0	21	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	17	580	0	0	585	8	8	0	21	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	17	580	0	0	585	8	8	0	21	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	580	0	0	585	8	8	0	21	0	0	0
RTOR Reduct:	0	0	0	0	0	0	0	0	17	0	0	0
RTOR Vol:	17	580	0	0	585	8	8	0	4	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	17	580	0	0	585	8	8	0	4	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.97	0.03	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1720	3440	0	0	3394	46	1720	0	1720	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.17	0.00	0.00	0.17	0.17	0.00	0.00	0.00	0.00	0.00	0.00
Crit Volume:	17				297	8					0	
Crit Moves:	****				****	****						

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #16 Brentwood Blvd @ Nancy Street (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.239
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	24	Level Of Service:	A

Street Name:	Brentwood Blvd						Nancy Street (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	7	7	4	7	7	0	0	0	4	4	4
Lanes:	0 0	1 1	0	1 0	2 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	591	23	58	642	0	0	0	0	46	0	34
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	591	23	58	642	0	0	0	0	46	0	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	591	23	58	642	0	0	0	0	46	0	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	591	23	58	642	0	0	0	0	46	0	34
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	34
RTOR Vol:	0	591	23	58	642	0	0	0	0	46	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	591	23	58	642	0	0	0	0	46	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.93	0.07	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3311	129	1720	3440	0	0	0	0	1720	0	1720
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.18	0.03	0.19	0.00	0.00	0.00	0.00	0.03	0.00	0.00
Crit Volume:			307	58				0		46		
Crit Moves:			****	****						****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #17 Brentwood Blvd. @ Village Drive

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: C[19.9]

Street Name:	Brentwood Blvd.						Village Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	550	21	16	518	0	0	0	0	15	0	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	550	21	16	518	0	0	0	0	15	0	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.81	0.81	0.81	1.00	1.00	1.00	0.66	0.66	0.66
PHF Volume:	0	574	22	20	636	0	0	0	0	23	0	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	574	22	20	636	0	0	0	0	23	0	33
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	596	xxxx	xxxxx	xxxx	xxxx	xxxxx	1261	1261	585
Potent Cap.:	xxxx	xxxx	xxxxx	942	xxxx	xxxxx	xxxx	xxxx	xxxxx	188	170	511
Move Cap.:	xxxx	xxxx	xxxxx	942	xxxx	xxxxx	xxxx	xxxx	xxxxx	185	167	511
Volume/Cap:	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	0.12	0.00	0.07
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	298	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.7	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	19.9	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	C	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			19.9		
ApproachLOS:	*			*			*			C		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #18 Brentwood Blvd. @ Central Blvd / Sycamore Ave (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.384
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	A

Street Name:	Brentwood Blvd.						Central Blvd / Sycamore Ave (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	15	15	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	41	471	31	62	446	59	37	49	34	37	90	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	471	31	62	446	59	37	49	34	37	90	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	41	471	31	62	446	59	37	49	34	37	90	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	471	31	62	446	59	37	49	34	37	90	89
RTOR Reduct:	0	0	31	0	0	0	0	0	0	0	0	62
RTOR Vol:	41	471	0	62	446	59	37	49	34	37	90	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	41	471	0	62	446	59	37	49	34	37	90	27
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.77	0.23	1.00	1.18	0.82	1.00	1.00	1.00
Final Sat.:	1720	1720	1720	1720	3038	402	1720	2031	1409	1720	1720	1720
Capacity Analysis Module:												
Vol/Sat:	0.02	0.27	0.00	0.04	0.15	0.15	0.02	0.02	0.02	0.02	0.05	0.02
Crit Volume:		471			62			37			90	
Crit Moves:		****			****			****			****	

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #20 Central Street @ Second Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.266
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Second Street						Central Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ignore		
Min. Green:	5	5	5	5	5	5	5	7	7	5	7	7
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	57	195	36	54	388	4	6	138	133	51	179	49
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	57	195	36	54	388	4	6	138	133	51	179	49
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	57	195	36	54	388	4	6	138	133	51	179	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	195	36	54	388	4	6	138	133	51	179	49
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	57	195	36	54	388	4	6	138	133	51	179	49
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
FinalVolume:	57	195	36	54	388	4	6	138	133	51	179	49
Saturation Flow Module:												
Sat/Lane:	1650 1650	1650		1650 1650	1650		1650 1650	1650		1650 1650	1650	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Lanes:	1.00 1.69	0.31		1.00 1.98	0.02		1.00 1.02	0.98		1.00 2.00	1.00	
Final Sat.:	1650 2786	514		1650 3266	34		1650 1680	1620		1650 3300	1650	
Capacity Analysis Module:												
Vol/Sat:	0.03 0.07	0.07		0.03 0.12	0.12		0.00 0.08	0.08		0.03 0.05	0.03	
Crit Volume:	57			196			136			51		
Crit Moves:	****			****			****			****		

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #21 Central Blvd @ Walnut Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.205
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Street Name:	Walnut Blvd						Central Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	5	7	7	5	7	7	5	7	7	5	7	7
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	14	3	103	2	0	1	2	380	22	122	264	6
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	14	3	103	2	0	1	2	380	22	122	264	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	14	3	103	2	0	1	2	380	22	122	264	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	3	103	2	0	1	2	380	22	122	264	6
RTOR Reduct:	0	0	103	0	0	0	0	0	0	0	0	0
RTOR Vol:	14	3	0	2	0	1	2	380	22	122	264	6
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	14	3	0	2	0	1	2	380	22	122	264	6
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.89	0.11	1.00	1.96	0.04
Final Sat.:	1650	1650	1650	1650	0	1650	1650	3119	181	1650	3227	73
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.12	0.07	0.08	0.08
Crit Volume:	14					1			201	122		
Crit Moves:	****					****			****	****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #22 Brentwood Blvd @ Pine Street

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: B[11.8]

Street Name:	Brentwood Blvd						Pine Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1	1 0		0 1	1 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	427	96	21	475	0	0	0	0	14	0	59
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	427	96	21	475	0	0	0	0	14	0	59
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	427	96	21	475	0	0	0	0	14	0	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	427	96	21	475	0	0	0	0	14	0	59
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	523	xxxx	xxxxx	xxxx	xxxx	xxxxx	755	992	262
Potent Cap.:	xxxx	xxxx	xxxxx	986	xxxx	xxxxx	xxxx	xxxx	xxxxx	345	244	737
Move Cap.:	xxxx	xxxx	xxxxx	986	xxxx	xxxxx	xxxx	xxxx	xxxxx	339	239	737
Volume/Cap:	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	0.04	0.00	0.08
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	602	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	8.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	11.8	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			11.8		
ApproachLOS:	*			*			*			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #23 Brentwood Blvd @ Maple Street

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: B[10.0]

Street Name:	Brentwood Blvd						Maple Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1 0	1	0	0 1 0	1	0	0 0 0	0	0	0 0 0	0	1
Volume Module:												
Base Vol:	0	511	31	18	477	0	0	0	0	0	0	13
Growth Adj:	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00
Initial Bse:	0	511	31	18	477	0	0	0	0	0	0	13
User Adj:	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00
PHF Adj:	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00
PHF Volume:	0	511	31	18	477	0	0	0	0	0	0	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	511	31	18	477	0	0	0	0	0	0	13
Critical Gap Module:												
Critical Gp:	xxxxx xxxx xxxxx		4.3	xxxx xxxxx		xxxxx	xxxx xxxxx		xxxxx	xxxx		6.9
FollowUpTim:	xxxxx xxxx xxxxx		2.3	xxxx xxxxx		xxxxx	xxxx xxxxx		xxxxx	xxxx		3.3
Capacity Module:												
Cnflict Vol:	xxxx xxxx xxxxx		542	xxxx xxxxx		xxxx	xxxx xxxxx		xxxx	xxxx		271
Potent Cap.:	xxxx xxxx xxxxx		969	xxxx xxxxx		xxxx	xxxx xxxxx		xxxx	xxxx		727
Move Cap.:	xxxx xxxx xxxxx		969	xxxx xxxxx		xxxx	xxxx xxxxx		xxxx	xxxx		727
Volume/Cap:	xxxx xxxx	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.02
Level Of Service Module:												
2Way95thQ:	xxxx xxxx xxxxx		0.1	xxxx xxxxx		xxxx	xxxx xxxxx		xxxx	xxxx		0.1
Control Del:	xxxxx xxxx xxxxx		8.8	xxxx xxxxx		xxxxx	xxxx xxxxx		xxxxx	xxxx		10.0
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	B
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx xxxxx		
SharedQueue:	0.0 xxxx xxxxx			0.1 xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx xxxx xxxxx		
Shrd ConDel:	9.0 xxxx xxxxx			8.8 xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx xxxx xxxxx		
Shared LOS:	A	*	*	A	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			10.0		
ApproachLOS:	*			*			*			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #24 Brentwood Blvd @ Oak Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.391
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Street Name:	Brentwood Blvd.						Oak St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 1	0 1	0	1 0	1 0	1
Volume Module:												
Base Vol:	95	374	56	25	313	119	167	197	133	62	152	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	95	374	56	25	313	119	167	197	133	62	152	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	95	374	56	25	313	119	167	197	133	62	152	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	95	374	56	25	313	119	167	197	133	62	152	19
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	19
RTOR Vol:	95	374	56	25	313	119	167	197	133	62	152	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	95	374	56	25	313	119	167	197	133	62	152	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.74	0.26	1.00	1.45	0.55	1.01	1.19	0.80	1.00	1.00	1.00
Final Sat.:	1650	2870	430	1650	2391	909	1516	1964	1318	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.06	0.13	0.13	0.02	0.13	0.13	0.11	0.10	0.10	0.04	0.09	0.00
Crit Volume:	95			216			165			152		
Crit Moves:	****			****			****			****		

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #25 Walnut Blvd @ Oak St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.368
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Street Name:	Walnut Blvd						Oak St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	5	7	7	0	7	7	5	5	5	5	5	5
Lanes:	1 0	1 0	1	1 0	0 1	0	0 1	0 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	3	128	276	218	154	3	1	1	0	259	0	110
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	128	276	218	154	3	1	1	0	259	0	110
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	128	276	218	154	3	1	1	0	259	0	110
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	128	276	218	154	3	1	1	0	259	0	110
RTOR Reduct:	0	0	259	0	0	0	0	0	0	0	0	110
RTOR Vol:	3	128	17	218	154	3	1	1	0	259	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	3	128	17	218	154	3	1	1	0	259	0	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.98	0.02	0.50	0.50	0.00	1.00	0.00	1.00
Final Sat.:	1650	1650	1650	1650	1618	32	825	825	0	1650	0	1650
Capacity Analysis Module:												
Vol/Sat:	0.00	0.08	0.01	0.13	0.10	0.10	0.00	0.00	0.00	0.16	0.00	0.00
Crit Volume:		128		218				2		259		
Crit Moves:		****		****				****		****		

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #26 Brentwood Blvd. @ Second St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.375
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	A

Street Name:	Brentwood Blvd.						Second St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	100	387	21	183	393	21	111	383	64	35	176	129
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	100	387	21	183	393	21	111	383	64	35	176	129
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	100	387	21	183	393	21	111	383	64	35	176	129
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	387	21	183	393	21	111	383	64	35	176	129
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	129
RTOR Vol:	100	387	21	183	393	21	111	383	64	35	176	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	100	387	21	183	393	21	111	383	64	35	176	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.90	0.10	1.00	1.90	0.10	1.00	1.71	0.29	1.00	2.00	1.00
Final Sat.:	1720	3263	177	1720	3266	174	1720	2947	493	1720	3440	1720
Capacity Analysis Module:												
Vol/Sat:	0.06	0.12	0.12	0.11	0.12	0.12	0.06	0.13	0.13	0.02	0.05	0.00
Crit Volume:			204	183					224	35		
Crit Moves:			****	****					****	****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #27 Brentwood Blvd. @ Chestnut St.

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: C[15.9]

Street Name:	Brentwood Blvd.						Chestnut St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	498	34	50	461	0	0	0	0	19	0	44
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	498	34	50	461	0	0	0	0	19	0	44
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	498	34	50	461	0	0	0	0	19	0	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	498	34	50	461	0	0	0	0	19	0	44
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	532	xxxx	xxxxx	xxxx	xxxx	xxxxx	1076	1076	515
Potent Cap.:	xxxx	xxxx	xxxxx	996	xxxx	xxxxx	xxxx	xxxx	xxxxx	243	219	560
Move Cap.:	xxxx	xxxx	xxxxx	996	xxxx	xxxxx	xxxx	xxxx	xxxxx	233	208	560
Volume/Cap:	xxxx	xxxx	xxxx	0.05	xxxx	xxxx	xxxx	xxxx	xxxx	0.08	0.00	0.08
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	394	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.6	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	8.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	15.9	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	C	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			15.9		
ApproachLOS:	*			*			*			C		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #28 Brentwood Blvd. @ Balfour Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.529
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	A

Street Name:	Brentwood Blvd.						Balfour Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	8	10	10	6	10	10	5	5	5	4	5	5
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	1 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	235	322	14	38	293	228	248	340	323	37	427	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	235	322	14	38	293	228	248	340	323	37	427	61
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	235	322	14	38	293	228	248	340	323	37	427	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	235	322	14	38	293	228	248	340	323	37	427	61
RTOR Reduct:	0	0	0	0	0	228	0	0	235	0	0	0
RTOR Vol:	235	322	14	38	293	0	248	340	88	37	427	61
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	235	322	14	38	293	0	248	340	88	37	427	61
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.75	0.25
Final Sat.:	1650	3300	1650	1650	3300	1650	1650	1650	1650	1650	2888	413
Capacity Analysis Module:												
Vol/Sat:	0.14	0.10	0.01	0.02	0.09	0.00	0.15	0.21	0.05	0.02	0.15	0.15
Crit Volume:	235			147			248			244		
Crit Moves:	****			****			****			****		

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #29 Sellers Ave. @ Sunet Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.552
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.9
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Sellers Ave.						Sunset Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	77	175	8	13	275	103	45	59	65	19	65	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	77	175	8	13	275	103	45	59	65	19	65	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	77	175	8	13	275	103	45	59	65	19	65	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	175	8	13	275	103	45	59	65	19	65	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	77	175	8	13	275	103	45	59	65	19	65	24
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.30	0.67	0.03	0.03	0.71	0.26	0.27	0.35	0.38	0.18	0.60	0.22
Final Sat.:	193	439	20	24	498	187	158	207	228	99	338	125
Capacity Analysis Module:												
Vol/Sat:	0.40	0.40	0.40	0.55	0.55	0.55	0.28	0.28	0.28	0.19	0.19	0.19
Crit Moves:	****					****		****				****
Delay/Veh:	11.4	11.4	11.4	13.4	13.4	13.4	10.4	10.4	10.4	9.9	9.9	9.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.4	11.4	11.4	13.4	13.4	13.4	10.4	10.4	10.4	9.9	9.9	9.9
LOS by Move:	B	B	B	B	B	B	B	B	B	A	A	A
ApproachDel:	11.4			13.4			10.4			9.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	11.4			13.4			10.4			9.9		
LOS by Appr:	B			B			B			A		
AllWayAvgQ:	0.6	0.6	0.6	1.1	1.1	1.1	0.3	0.3	0.3	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Brentwood Blvd. @ Delta Road

Average Delay (sec/veh): 18.9 Worst Case Level Of Service: F[178.4]

Street Name:	Brentwood Blvd.						Delta Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 0 1 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	738	104	63	611	0	0	0	0	80	0	81
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	738	104	63	611	0	0	0	0	80	0	81
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.94	0.94	0.94	1.00	1.00	1.00	0.86	0.86	0.86
PHF Volume:	0	793	112	67	649	0	0	0	0	93	0	95
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	793	112	67	649	0	0	0	0	93	0	95
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	7.1	6.5	6.2	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	904	xxxx	xxxxx	1679	1688	649	1632	1632	849
Potent Cap.:	xxxx	xxxx	xxxxx	720	xxxx	xxxxx	75	94	470	112	101	361
Move Cap.:	xxxx	xxxx	xxxxx	720	xxxx	xxxxx	52	85	470	104	92	361
Volume/Cap:	xxxx	xxxx	xxxx	0.09	xxxx	xxxx	0.00	0.00	0.00	0.90	0.00	0.26
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	10.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0	xxxxx	xxxx	162	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	10.2	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	178	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			178.4		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 Sellers Ave @ Delta

Cycle (sec):	100	Critical Vol./Cap.(X):	0.382
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	9.9
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Sellers Ave.						Delta Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	67	173	31	11	152	16	28	84	45	32	72	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	173	31	11	152	16	28	84	45	32	72	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	67	173	31	11	152	16	28	84	45	32	72	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	67	173	31	11	152	16	28	84	45	32	72	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	67	173	31	11	152	16	28	84	45	32	72	23
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.25	0.64	0.11	0.06	0.85	0.09	0.18	0.53	0.29	0.25	0.57	0.18
Final Sat.:	175	453	81	42	582	61	118	353	189	162	364	116
Capacity Analysis Module:												
Vol/Sat:	0.38	0.38	0.38	0.26	0.26	0.26	0.24	0.24	0.24	0.20	0.20	0.20
Crit Moves:		****			****			****			****	
Delay/Veh:	10.6	10.6	10.6	9.6	9.6	9.6	9.5	9.5	9.5	9.3	9.3	9.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.6	10.6	10.6	9.6	9.6	9.6	9.5	9.5	9.5	9.3	9.3	9.3
LOS by Move:	B	B	B	A	A	A	A	A	A	A	A	A
ApproachDel:	10.6			9.6			9.5			9.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.6			9.6			9.5			9.3		
LOS by Appr:	B			A			A			A		
AllWayAvgQ:	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Brentwood Blvd. @ E. Sims Road

Average Delay (sec/veh): 3.4 Worst Case Level Of Service: F[82.2]

Street Name:	Brentwood Blvd.									E. Sims Road								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1!	0	0
Volume Module:																				
Base Vol:	0	837		23		31	664		0		0		0		0	44		0		21
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	0	837		23		31	664		0		0		0		0	44		0		21
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	0.88	0.88		0.88		0.88	0.88		0.88		1.00		1.00		1.00	0.90		0.90		0.90
PHF Volume:	0	950		26		35	753		0		0		0		0	49		0		23
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
FinalVolume:	0	950		26		35	753		0		0		0		0	49		0		23
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx		4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx		6.4		6.5		6.2				
FollowUpTim:	xxxxx	xxxx	xxxxx		2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx		3.5		4.0		3.3				
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx		976	xxxx	xxxxx		xxxx	xxxx	xxxxx		1786		1786		963			
Potent Cap.:	xxxx	xxxx	xxxxx		676	xxxx	xxxxx		xxxx	xxxx	xxxxx		89		81		310			
Move Cap.:	xxxx	xxxx	xxxxx		676	xxxx	xxxxx		xxxx	xxxx	xxxxx		86		77		310			
Volume/Cap:	xxxx	xxxx	xxxx		0.05	xxxx	xxxx		xxxx	xxxx	xxxx		0.57		0.00		0.08			
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx		0.2	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx		xxxx		xxxxx			
Control Del:	xxxxx	xxxx	xxxxx		10.6	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx		xxxx		xxxxx			
LOS by Move:	*	*	*		B	*	*		*	*	*		*		*		*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx		112		xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx		0.2	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx		3.3		xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx		10.6	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx		82.2		xxxxx			
Shared LOS:	*	*	*		B	*	*		*	*	*		*		F		*			
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				82.2							
ApproachLOS:	*				*				*				F							

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #4 Brentwood Blvd @ Lone Tree Way (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.453
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	A

Street Name:	Brentwood Blvd						Lone Tree Way (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	1 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	137	534	22	15	485	124	169	8	58	17	5	6
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	137	534	22	15	485	124	169	8	58	17	5	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	137	534	22	15	485	124	169	8	58	17	5	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	137	534	22	15	485	124	169	8	58	17	5	6
RTOR Reduct:	0	0	17	0	0	0	0	0	58	0	0	6
RTOR Vol:	137	534	5	15	485	124	169	8	0	17	5	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	137	534	5	15	485	124	169	8	0	17	5	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.59	0.41	0.95	0.05	1.00	0.77	0.23	1.00
Final Sat.:	1650	1650	1650	1650	2628	672	1575	75	1650	1275	375	1650
Capacity Analysis Module:												
Vol/Sat:	0.08	0.32	0.00	0.01	0.18	0.18	0.11	0.11	0.00	0.01	0.01	0.00
Crit Volume:		534			15			177			22	
Crit Moves:		****			****			****			****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Arroyo Seco Road @ Lone Tree Way

Average Delay (sec/veh): 3.2 Worst Case Level Of Service: A[8.8]

Street Name:	Arroyo Seco Road						Lone Tree Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1!	0	0	0 0 0	0	0	0 0 0	1	0	0 0 1	0	0
Volume Module:												
Base Vol:	29	0	1	0	0	0	0	3	47	0	2	0
Growth Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	29	0	1	0	0	0	0	3	47	0	2	0
User Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	0	1	0	0	0	0	3	47	0	2	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	29	0	1	0	0	0	0	3	47	0	2	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	29	29	27	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	986	864	1049	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	986	864	1049	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.03	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	988	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	8.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	A	*	*	*	*	*	*	*	*	*	*
ApproachDel:		8.8		xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:		A		*			*			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #6 Brentwood Blvd. @ Sunrise Drive

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: F[72.4]

Street Name:	Brentwood Blvd.								Sunrise Dr.							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	1	0	1	0 0	0	0	0	1 0	0	0	1!	0 0	0	0	0	0 0
Volume Module:																
Base Vol:	26	1012		0	0	814		19	10		0	9	0		0	0
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
Initial Bse:	26	1012		0	0	814		19	10		0	9	0		0	0
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
PHF Adj:	0.85	0.85		0.85	0.87	0.87		0.87	0.68		0.68	0.68	1.00		1.00	1.00
PHF Volume:	31	1189		0	0	935		22	15		0	13	0		0	0
Reduct Vol:	0	0		0	0	0		0	0		0	0	0		0	0
FinalVolume:	31	1189		0	0	935		22	15		0	13	0		0	0
Critical Gap Module:																
Critical Gp:	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx		6.4	6.5			6.2	xxxxx	xxxx	xxxxx	
FollowUpTim:	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx		3.5	4.0			3.3	xxxxx	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	956	xxxx	xxxxx	xxxx	xxxx	xxxxx		2196	2196			945	xxxx	xxxx	xxxxx	
Potent Cap.:	688	xxxx	xxxxx	xxxx	xxxx	xxxxx		50	45			317	xxxx	xxxx	xxxxx	
Move Cap.:	688	xxxx	xxxxx	xxxx	xxxx	xxxxx		48	43			317	xxxx	xxxx	xxxxx	
Volume/Cap:	0.04	xxxx	xxxx	xxxx	xxxx	xxxx		0.31	0.00			0.04	xxxx	xxxx	xxxx	
Level Of Service Module:																
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		
Control Del:	10.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		
LOS by Move:	B	*		*	*	*		*	*	*		*	*	*		
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	80	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	1.3	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	72.4	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	*		*	*	*		*	F		*		*	*		*
ApproachDel:	xxxxxx				xxxxxx				72.4				xxxxxx			
ApproachLOS:	*				*				F				*			

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Brentwood Blvd. @ Gregory Lane

Average Delay (sec/veh): 3.2 Worst Case Level Of Service: F[108.4]

Street Name:	Brentwood Blvd.									Gregory Ln.								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	0	1	0	1	0	0	1	0	0	0	1!	0	0	0	0	1!	0	0
Volume Module:																				
Base Vol:	17	999		0		0	770		39		29		0		30		0		0	
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00		1.00		1.00	
Initial Bse:	17	999		0		0	770		39		29		0		30		0		0	
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	0.89	0.89		0.89		0.81	0.81		0.81		0.92		0.92		0.92		1.00		1.00	
PHF Volume:	19	1129		0		0	948		48		31		0		33		0		0	
Reduct Vol:	0	0		0		0	0		0		0		0		0		0		0	
FinalVolume:	19	1129		0		0	948		48		31		0		33		0		0	
Critical Gap Module:																				
Critical Gp:	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx					6.4		6.5		6.2		7.1		6.5	
FollowUpTim:	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx					3.5		4.0		3.3		3.5		4.0	
Capacity Module:																				
Cnflict Vol:	996	xxxx	xxxxx	xxxx	xxxx	xxxxx					2140		2140		972		2156		2164	
Potent Cap.:	664	xxxx	xxxxx	xxxx	xxxx	xxxxx					54		49		306		35		47	
Move Cap.:	664	xxxx	xxxxx	xxxx	xxxx	xxxxx					53		47		306		30		46	
Volume/Cap:	0.03	xxxx	xxxx	xxxx	xxxx	xxxx					0.60		0.00		0.11		0.00		0.00	
Level Of Service Module:																				
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx					xxxx		xxxx		xxxxx		xxxx		xxxx	
Control Del:	10.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx					xxxxx		xxxx		xxxxx		xxxxx		xxxx	
LOS by Move:	B	*		*		*					*		*		*		*		*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx					xxxx		91		xxxxx	xxxx		0		xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					xxxxx		3.5		xxxxx	xxxxx		xxxx		xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					xxxxx		108		xxxxx	xxxxx		xxxx		xxxxx
Shared LOS:	*		*		*						*		F		*			*		*
ApproachDel:	xxxxxx			xxxxxx							108.4					xxxxxx				
ApproachLOS:	*			*							F					*				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Brentwood Blvd. @ Hanson Lane

Average Delay (sec/veh): 2.8 Worst Case Level Of Service: F[92.0]

Street Name:	Brentwood Blvd.						Hanson Ln					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	878	12	27	794	0	0	0	0	25	0	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	878	12	27	794	0	0	0	0	25	0	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.87	0.87	0.87	1.00	1.00	1.00	0.77	0.77	0.77
PHF Volume:	0	1034	14	31	917	0	0	0	0	33	0	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1034	14	31	917	0	0	0	0	33	0	27
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1048	xxxx	xxxxx	xxxx	xxxx	xxxxx	2020	2020	1041
Potent Cap.:	xxxx	xxxx	xxxxx	634	xxxx	xxxxx	xxxx	xxxx	xxxxx	64	58	279
Move Cap.:	xxxx	xxxx	xxxxx	634	xxxx	xxxxx	xxxx	xxxx	xxxxx	61	55	279
Volume/Cap:	xxxx	xxxx	xxxx	0.05	xxxx	xxxx	xxxx	xxxx	xxxx	0.53	0.00	0.10
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	11.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	95	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	3.0	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	11.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	92.0	xxxxx
Shared LOS:	*	*	*	B	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			92.0		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Brentwood Blvd. @ Homecoming Way

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: C[20.1]

Street Name:	Brentwood Blvd.						Homecoming Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 0 0 1		
Volume Module:												
Base Vol:	0	918	9	8	835	0	0	0	0	0	0	5
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	918	9	8	835	0	0	0	0	0	0	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.82	0.82	0.82	0.86	0.86	0.86	1.00	1.00	1.00	0.42	0.42	0.42
PHF Volume:	0	1117	11	9	974	0	0	0	0	0	0	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1117	11	9	974	0	0	0	0	0	0	12
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1128	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	1122
Potent Cap.:	xxxx	xxxx	xxxxx	591	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	250
Move Cap.:	xxxx	xxxx	xxxxx	591	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	250
Volume/Cap:	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.05
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.2
Control Del:	xxxxx	xxxx	xxxxx	11.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	20.1
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	C
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			20.1		
ApproachLOS:	*			*			*			C		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #10 Brentwood Blvd. @ Grant Street / Sunset Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.710
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	79	Level Of Service:	C

Street Name:	Brentwood Blvd.						Grant Street / Sunset Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	0 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	30	786	81	71	732	19	26	75	34	120	60	127
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	786	81	71	732	19	26	75	34	120	60	127
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	30	786	81	71	732	19	26	75	34	120	60	127
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	30	786	81	71	732	19	26	75	34	120	60	127
RTOR Reduct:	0	0	81	0	0	0	0	0	0	0	0	71
RTOR Vol:	30	786	0	71	732	19	26	75	34	120	60	56
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	30	786	0	71	732	19	26	75	34	120	60	56
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.97	0.03	0.19	0.56	0.25	0.67	0.33	1.00
Final Sat.:	1650	1650	1650	1650	1608	42	318	917	416	1100	550	1650
Capacity Analysis Module:												
Vol/Sat:	0.02	0.48	0.00	0.04	0.46	0.46	0.08	0.08	0.08	0.11	0.11	0.03
Crit Volume:		786			71			135			180	
Crit Moves:		****			****			****			****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Brentwood Blvd. @ Sunset Ct.

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: C[20.8]

Street Name:	Brentwood Blvd.									Sunset Ct.								
Approach:	North Bound						South Bound			East Bound						West Bound		
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled						Uncontrolled			Stop Sign						Stop Sign		
Rights:	Include						Include			Include						Include		
Lanes:	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Volume Module:																				
Base Vol:	0	943		15		6	919		0		0		0		0	0		0		25
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	0	943		15		6	919		0		0		0		0	0		0		25
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	0.89	0.89		0.89		0.94	0.94		0.94		1.00		1.00		1.00	0.57		0.57		0.57
PHF Volume:	0	1055		17		6	982		0		0		0		0	0		0		44
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
FinalVolume:	0	1055		17		6	982		0		0		0		0	0		0		44
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx		4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx		6.2						
FollowUpTim:	xxxxx	xxxx	xxxxx		2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx		3.3						
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx		1072	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx		1063				
Potent Cap.:	xxxx	xxxx	xxxxx		621	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx		271				
Move Cap.:	xxxx	xxxx	xxxxx		621	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx		271				
Volume/Cap:	xxxx	xxxx	xxxx		0.01	xxxx	xxxx		xxxx	xxxx	xxxx		xxxx	xxxx		0.16				
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx		0.0	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx		0.6				
Control Del:	xxxxx	xxxx	xxxxx		10.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx		20.8						
LOS by Move:	*	*	*		B	*	*	*	*	*	*	*		C						
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*	*	*			*	*	*			*	*	*			*	*	*		
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					20.8				
ApproachLOS:	*					*					*					C				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Brentwood Blvd. @ Havenwood Ave.

Average Delay (sec/veh): 2.9 Worst Case Level Of Service: F[170.9]

Street Name:	Brentwood Blvd.									Havenwood Ave.								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	1	0	1	1	0	0	1	0	0	0	0	0	1	0	0	1!	0	0
Volume Module:																				
Base Vol:	5	953		23		14	999		2		0		0		3		16		0	11
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00		1.00		1.00	1.00
Initial Bse:	5	953		23		14	999		2		0		0		3		16		0	11
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00		1.00		1.00	1.00
PHF Adj:	0.91	0.91		0.91		0.94	0.94		0.94		0.75		0.75		0.75		0.75		0.75	0.75
PHF Volume:	6	1053		25		15	1063		2		0		0		4		21		0	15
Reduct Vol:	0	0		0		0	0		0		0		0		0		0		0	0
FinalVolume:	6	1053		25		15	1063		2		0		0		4		21		0	15
Critical Gap Module:																				
Critical Gp:	4.2	xxxx	xxxxx		4.2	xxxx	xxxxx	xxxxx	xxxx		6.2		7.1	6.5		6.2				
FollowUpTim:	2.3	xxxx	xxxxx		2.3	xxxx	xxxxx	xxxxx	xxxx		3.3		3.5	4.0		3.3				
Capacity Module:																				
Cnflict Vol:	1065	xxxx	xxxxx		1078	xxxx	xxxxx		xxxx	xxxx	1064		2160	2159		1053				
Potent Cap.:	625	xxxx	xxxxx		617	xxxx	xxxxx		xxxx	xxxx	271		34	48		275				
Move Cap.:	625	xxxx	xxxxx		617	xxxx	xxxxx		xxxx	xxxx	271		33	46		275				
Volume/Cap:	0.01	xxxx	xxxx		0.02	xxxx	xxxx		xxxx	xxxx	0.01		0.65	0.00		0.05				
Level Of Service Module:																				
2Way95thQ:	0.0	xxxx	xxxxx		0.1	xxxx	xxxxx		xxxx	xxxx	0.0		xxxx	xxxx		xxxxx				
Control Del:	10.8	xxxx	xxxxx		11.0	xxxx	xxxxx	xxxxx	xxxx		18.5		xxxxx	xxxx		xxxxx				
LOS by Move:	B	*		*		B	*		*	*		C		*	*		*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx		51	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx		2.8	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx		171	xxxxx	
Shared LOS:	*	*		*		*	*		*		*		*			*		F		*
ApproachDel:	xxxxxx					xxxxxx					18.5					170.9				
ApproachLOS:	*					*					C					F				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #13 Brentwood Blvd. @ Applewood Common

Cycle (sec):	100	Critical Vol./Cap.(X):	0.638		
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx		
Optimal Cycle:	63	Level Of Service:	B		

Street Name:	Brentwood Blvd.						Applewood Common					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	8	977	41	20	993	7	7	0	10	37	3	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	977	41	20	993	7	7	0	10	37	3	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	977	41	20	993	7	7	0	10	37	3	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	977	41	20	993	7	7	0	10	37	3	18
RTOR Reduct:	0	0	37	0	0	0	0	0	0	0	0	0
RTOR Vol:	8	977	4	20	993	7	7	0	10	37	3	18
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	977	4	20	993	7	7	0	10	37	3	18
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.99	0.01	1.00	0.00	1.00	1.00	0.14	0.86
Final Sat.:	1650	1650	1650	1650	1638	12	1650	0	1650	1650	236	1414
Capacity Analysis Module:												
Vol/Sat:	0.00	0.59	0.00	0.01	0.61	0.61	0.00	0.00	0.01	0.02	0.01	0.01
Crit Volume:	8			1000			7			37		
Crit Moves:	****			****			****			****		

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #14 Brentwood Blvd. @ Sand Creek Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.399
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	31	Level Of Service:	A

Street Name:	Brentwood Blvd.						Sand Creek Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	0	0	0
Lanes:	1 0	2 0	0	1 0	1 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	145	565	0	0	592	125	183	0	158	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	145	565	0	0	592	125	183	0	158	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	145	565	0	0	592	125	183	0	158	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	145	565	0	0	592	125	183	0	158	0	0	0
RTOR Reduct:	0	0	0	0	0	0	0	0	145	0	0	0
RTOR Vol:	145	565	0	0	592	125	183	0	13	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	145	565	0	0	592	125	183	0	13	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	1.00	1.65	0.35	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1720	3440	0	1720	2840	600	1720	0	1720	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.08	0.16	0.00	0.00	0.21	0.21	0.11	0.00	0.01	0.00	0.00	0.00
Crit Volume:	145				359		183				0	
Crit Moves:	****				****		****					

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #15 Brentwood Blvd. @ Technology Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.218
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	24	Level Of Service:	A

Street Name:	Brentwood Blvd.						Technology Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	6	6	0	6	6	4	4	4	0	0	0
Lanes:	1 0	2 0	0	0 0	1 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	26	719	0	0	678	11	5	0	23	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	719	0	0	678	11	5	0	23	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	26	719	0	0	678	11	5	0	23	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	719	0	0	678	11	5	0	23	0	0	0
RTOR Reduct:	0	0	0	0	0	0	0	0	23	0	0	0
RTOR Vol:	26	719	0	0	678	11	5	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	26	719	0	0	678	11	5	0	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.97	0.03	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1720	3440	0	0	3385	55	1720	0	1720	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.21	0.00	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00
Crit Volume:	26					345	5				0	
Crit Moves:	****					****	****					

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #16 Brentwood Blvd @ Nancy Street (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.277
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	26	Level Of Service:	A

Street Name:	Brentwood Blvd						Nancy Street (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	7	7	4	7	7	0	0	0	4	4	4
Lanes:	0 0	1 1	0	1 0	2 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	691	31	64	696	0	0	0	0	52	0	54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	691	31	64	696	0	0	0	0	52	0	54
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	691	31	64	696	0	0	0	0	52	0	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	691	31	64	696	0	0	0	0	52	0	54
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	54
RTOR Vol:	0	691	31	64	696	0	0	0	0	52	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	691	31	64	696	0	0	0	0	52	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.91	0.09	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3292	148	1720	3440	0	0	0	0	1720	0	1720
Capacity Analysis Module:												
Vol/Sat:	0.00	0.21	0.21	0.04	0.20	0.00	0.00	0.00	0.00	0.03	0.00	0.00
Crit Volume:			361	64				0		52		
Crit Moves:			****	****						****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #17 Brentwood Blvd. @ Village Drive

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: E[36.3]

Street Name:	Brentwood Blvd.						Village Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	708	46	18	702	0	0	0	0	19	0	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	708	46	18	702	0	0	0	0	19	0	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.91	0.91	0.91	1.00	1.00	1.00	0.60	0.60	0.60
PHF Volume:	0	759	49	20	768	0	0	0	0	32	0	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	759	49	20	768	0	0	0	0	32	0	28
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	808	xxxx	xxxxx	xxxx	xxxx	xxxxx	1591	1591	783
Potent Cap.:	xxxx	xxxx	xxxxx	783	xxxx	xxxxx	xxxx	xxxx	xxxxx	118	107	393
Move Cap.:	xxxx	xxxx	xxxxx	783	xxxx	xxxxx	xxxx	xxxx	xxxxx	116	105	393
Volume/Cap:	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.27	0.00	0.07
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	9.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	174	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.4	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	36.3	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	E	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			36.3		
ApproachLOS:	*			*			*			E		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #18 Brentwood Blvd. @ Central Blvd / Sycamore Ave (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.462
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Street Name:	Brentwood Blvd.						Central Blvd / Sycamore Ave (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	15	15	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	1	1 0	1 0	1	0	1 0	1	0 1
Volume Module:												
Base Vol:	43	550	41	72	515	70	109	68	38	23	64	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	43	550	41	72	515	70	109	68	38	23	64	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	43	550	41	72	515	70	109	68	38	23	64	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	550	41	72	515	70	109	68	38	23	64	71
RTOR Reduct:	0	0	23	0	0	0	0	0	0	0	0	71
RTOR Vol:	43	550	18	72	515	70	109	68	38	23	64	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	43	550	18	72	515	70	109	68	38	23	64	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.76	0.24	1.00	1.28	0.72	1.00	1.00	1.00
Final Sat.:	1720	1720	1720	1720	3028	412	1720	2207	1233	1720	1720	1720
Capacity Analysis Module:												
Vol/Sat:	0.03	0.32	0.01	0.04	0.17	0.17	0.06	0.03	0.03	0.01	0.04	0.00
Crit Volume:		550			72			109			64	
Crit Moves:		****			****			****			****	

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #20 Central Street @ Second Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.222
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Second Street						Central Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ignore		
Min. Green:	5	5	5	5	5	5	5	7	7	5	7	7
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	71	279	71	56	219	1	11	129	49	47	171	72
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	71	279	71	56	219	1	11	129	49	47	171	72
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	71	279	71	56	219	1	11	129	49	47	171	72
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	279	71	56	219	1	11	129	49	47	171	72
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	71	279	71	56	219	1	11	129	49	47	171	72
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	71	279	71	56	219	1	11	129	49	47	171	72
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.59	0.41	1.00	1.99	0.01	1.00	1.45	0.55	1.00	2.00	1.00
Final Sat.:	1650	2631	669	1650	3285	15	1650	2392	908	1650	3300	1650
Capacity Analysis Module:												
Vol/Sat:	0.04	0.11	0.11	0.03	0.07	0.07	0.01	0.05	0.05	0.03	0.05	0.04
Crit Volume:			175	56				89		47		
Crit Moves:			****	****				****		****		

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #21 Central Blvd @ Walnut Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.202
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Street Name:	Walnut Blvd						Central Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	5	7	7	5	7	7	5	7	7	5	7	7
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	48	0	202	7	5	2	2	232	15	136	308	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	48	0	202	7	5	2	2	232	15	136	308	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	48	0	202	7	5	2	2	232	15	136	308	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	0	202	7	5	2	2	232	15	136	308	1
RTOR Reduct:	0	0	136	0	0	0	0	0	0	0	0	0
RTOR Vol:	48	0	66	7	5	2	2	232	15	136	308	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	48	0	66	7	5	2	2	232	15	136	308	1
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.71	0.29	1.00	1.88	0.12	1.00	1.99	0.01
Final Sat.:	1650	1650	1650	1650	1179	471	1650	3100	200	1650	3289	11
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.04	0.00	0.00	0.00	0.00	0.07	0.07	0.08	0.09	0.09
Crit Volume:			66	7				124		136		
Crit Moves:			****	****				****		****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #22 Brentwood Blvd @ Pine Street

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: B[13.1]

Street Name:	Brentwood Blvd						Pine Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1	1 0		0 1	1 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	598	16	16	610	0	0	0	0	8	0	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	598	16	16	610	0	0	0	0	8	0	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	598	16	16	610	0	0	0	0	8	0	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	598	16	16	610	0	0	0	0	8	0	22
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	614	xxxx	xxxxx	xxxx	xxxx	xxxxx	943	1248	307
Potent Cap.:	xxxx	xxxx	xxxxx	909	xxxx	xxxxx	xxxx	xxxx	xxxxx	261	172	689
Move Cap.:	xxxx	xxxx	xxxxx	909	xxxx	xxxxx	xxxx	xxxx	xxxxx	257	169	689
Volume/Cap:	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	0.00	0.03
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	476	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.2	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	13.1	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			13.1		
ApproachLOS:	*			*			*			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #23 Brentwood Blvd @ Maple Street

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: B[10.3]

Street Name:	Brentwood Blvd						Maple Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1 0	1	0	0 1 0	1	0	0 0 0	0	0	0 0 0	0	1
Volume Module:												
Base Vol:	0	587	12	16	603	0	0	0	0	0	0	17
Growth Adj:	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00
Initial Bse:	0	587	12	16	603	0	0	0	0	0	0	17
User Adj:	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00
PHF Adj:	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00
PHF Volume:	0	587	12	16	603	0	0	0	0	0	0	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	587	12	16	603	0	0	0	0	0	0	17
Critical Gap Module:												
Critical Gp:	xxxxx xxxx xxxxx			4.3	xxxx	xxxxx	xxxxx xxxx xxxxx			xxxxx xxxx		6.9
FollowUpTim:	xxxxx xxxx xxxxx			2.3	xxxx	xxxxx	xxxxx xxxx xxxxx			xxxxx xxxx		3.3
Capacity Module:												
Cnflict Vol:	xxxx xxxx xxxxx			599	xxxx	xxxxx	xxxx xxxx xxxxx			xxxx xxxx		300
Potent Cap.:	xxxx xxxx xxxxx			921	xxxx	xxxxx	xxxx xxxx xxxxx			xxxx xxxx		697
Move Cap.:	xxxx xxxx xxxxx			921	xxxx	xxxxx	xxxx xxxx xxxxx			xxxx xxxx		697
Volume/Cap:	xxxx xxxx		xxxx	0.02	xxxx	xxxx	xxxx xxxx		xxxx	xxxx xxxx		0.02
Level Of Service Module:												
2Way95thQ:	xxxx xxxx xxxxx			0.1	xxxx	xxxxx	xxxx xxxx xxxxx			xxxx xxxx		0.1
Control Del:	xxxxx xxxx xxxxx			9.0	xxxx	xxxxx	xxxxx xxxx xxxxx			xxxxx xxxx		10.3
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	B
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx xxxxx		
SharedQueue:	0.0 xxxx xxxxx			0.1	xxxx	xxxxx	xxxxx xxxx xxxxx			xxxxx xxxx xxxxx		
Shrd ConDel:	9.0 xxxx xxxxx			9.0	xxxx	xxxxx	xxxxx xxxx xxxxx			xxxxx xxxx xxxxx		
Shared LOS:	A	*	*	A	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			10.3		
ApproachLOS:	*			*			*			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #24 Brentwood Blvd @ Oak Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.438
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	A

Street Name:	Brentwood Blvd.						Oak St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 1	0 1	0	1 0	1 0	1
Volume Module:												
Base Vol:	80	375	66	30	433	158	243	183	45	63	174	26
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	80	375	66	30	433	158	243	183	45	63	174	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	80	375	66	30	433	158	243	183	45	63	174	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	375	66	30	433	158	243	183	45	63	174	26
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	26
RTOR Vol:	80	375	66	30	433	158	243	183	45	63	174	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	80	375	66	30	433	158	243	183	45	63	174	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.70	0.30	1.00	1.47	0.53	1.54	1.17	0.29	1.00	1.00	1.00
Final Sat.:	1650	2806	494	1650	2418	882	2319	1925	474	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.05	0.13	0.13	0.02	0.18	0.18	0.10	0.10	0.09	0.04	0.11	0.00
Crit Volume:	80					296	157				174	
Crit Moves:	****					****	****				****	

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #25 Walnut Blvd @ Oak St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.420
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	A

Street Name:	Walnut Blvd						Oak St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	5	7	7	0	7	7	5	5	5	5	5	5
Lanes:	1 0	1 0	1	1 0	0 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	12	272	317	132	148	10	4	6	6	264	9	165
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	272	317	132	148	10	4	6	6	264	9	165
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	12	272	317	132	148	10	4	6	6	264	9	165
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	272	317	132	148	10	4	6	6	264	9	165
RTOR Reduct:	0	0	264	0	0	0	0	0	0	0	0	132
RTOR Vol:	12	272	53	132	148	10	4	6	6	264	9	33
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	12	272	53	132	148	10	4	6	6	264	9	33
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.94	0.06	0.25	0.37	0.38	0.97	0.03	1.00
Final Sat.:	1650	1650	1650	1650	1546	104	413	619	619	1596	54	1650
Capacity Analysis Module:												
Vol/Sat:	0.01	0.16	0.03	0.08	0.10	0.10	0.01	0.01	0.01	0.17	0.17	0.02
Crit Volume:		272		132				16			273	
Crit Moves:		****		****				****			****	

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #26 Brentwood Blvd. @ Second St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.359
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	A

Street Name:	Brentwood Blvd.						Second St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	107	509	2	191	534	38	51	226	72	22	203	134
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	107	509	2	191	534	38	51	226	72	22	203	134
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	107	509	2	191	534	38	51	226	72	22	203	134
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	509	2	191	534	38	51	226	72	22	203	134
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	134
RTOR Vol:	107	509	2	191	534	38	51	226	72	22	203	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	107	509	2	191	534	38	51	226	72	22	203	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	1.87	0.13	1.00	1.52	0.48	1.00	2.00	1.00
Final Sat.:	1720	3427	13	1720	3211	229	1720	2609	831	1720	3440	1720
Capacity Analysis Module:												
Vol/Sat:	0.06	0.15	0.15	0.11	0.17	0.17	0.03	0.09	0.09	0.01	0.06	0.00
Crit Volume:		256			191			149			22	
Crit Moves:		****			****			****			****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #27 Brentwood Blvd. @ Chestnut St.

Average Delay (sec/veh): 0.9 Worst Case Level Of Service: C[17.7]

Street Name:	Brentwood Blvd.						Chestnut St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	489	21	26	531	0	0	0	0	22	0	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	489	21	26	531	0	0	0	0	22	0	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	489	21	26	531	0	0	0	0	22	0	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	489	21	26	531	0	0	0	0	22	0	19
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	510	xxxx	xxxxx	xxxx	xxxx	xxxxx	1083	1083	500
Potent Cap.:	xxxx	xxxx	xxxxx	1015	xxxx	xxxxx	xxxx	xxxx	xxxxx	241	217	571
Move Cap.:	xxxx	xxxx	xxxxx	1015	xxxx	xxxxx	xxxx	xxxx	xxxxx	236	212	571
Volume/Cap:	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.09	0.00	0.03
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	324	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	8.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	17.7	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	C	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			17.7		
ApproachLOS:	*			*			*			C		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #28 Brentwood Blvd. @ Balfour Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.732
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	85	Level Of Service:	C

Street Name:	Brentwood Blvd.						Balfour Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	8	10	10	6	10	10	5	5	5	4	5	5
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	1 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	454	349	48	63	346	193	243	517	448	64	358	80
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	454	349	48	63	346	193	243	517	448	64	358	80
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	454	349	48	63	346	193	243	517	448	64	358	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	454	349	48	63	346	193	243	517	448	64	358	80
RTOR Reduct:	0	0	0	0	0	193	0	0	448	0	0	0
RTOR Vol:	454	349	48	63	346	0	243	517	0	64	358	80
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	454	349	48	63	346	0	243	517	0	64	358	80
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.63	0.37
Final Sat.:	1650	3300	1650	1650	3300	1650	1650	1650	1650	1650	2697	603
Capacity Analysis Module:												
Vol/Sat:	0.28	0.11	0.03	0.04	0.10	0.00	0.15	0.31	0.00	0.04	0.13	0.13
Crit Volume:	454			173			517			64		
Crit Moves:	****			****			****			****		

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #29 Sellers Ave. @ Sunet Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.492
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.3
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Sellers Ave.						Sunset Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	81	236	14	21	175	39	50	91	62	7	77	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	81	236	14	21	175	39	50	91	62	7	77	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	81	236	14	21	175	39	50	91	62	7	77	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	236	14	21	175	39	50	91	62	7	77	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	81	236	14	21	175	39	50	91	62	7	77	30
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.24	0.72	0.04	0.09	0.74	0.17	0.25	0.45	0.30	0.06	0.68	0.26
Final Sat.:	165	479	28	59	491	109	152	276	188	36	395	154
Capacity Analysis Module:												
Vol/Sat:	0.49	0.49	0.49	0.36	0.36	0.36	0.33	0.33	0.33	0.19	0.19	0.19
Crit Moves:	****				****			****			****	
Delay/Veh:	12.6	12.6	12.6	10.8	10.8	10.8	10.7	10.7	10.7	9.7	9.7	9.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.6	12.6	12.6	10.8	10.8	10.8	10.7	10.7	10.7	9.7	9.7	9.7
LOS by Move:	B	B	B	B	B	B	B	B	B	A	A	A
ApproachDel:	12.6			10.8			10.7			9.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.6			10.8			10.7			9.7		
LOS by Appr:	B			B			B			A		
AllWayAvgQ:	0.8	0.8	0.8	0.5	0.5	0.5	0.4	0.4	0.4	0.2	0.2	0.2

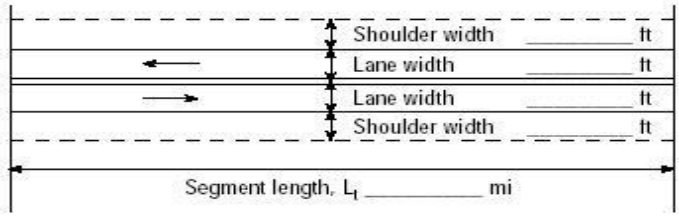
Note: Queue reported is the number of cars per lane.

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Brentwood Blvd.*
Agency or Company		From/To	*E Sims Rd. and Delta Rd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☑ Class I highway ☐ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*1184* veh/h
Directional split	*54 / 46*
Peak-hour factor, PHF	*0.92*
No-passing zone	*100*
% Trucks and Buses , P_T	*10* %
% Recreational vehicles, P_R	*0*%
Access points/ *mi*	*20*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1300*
v_p * highest directional split proportion[2] (pc/h)	*702*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*40 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*40.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.9*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*28.0*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1287*
v_p * highest directional split proportion[2] (pc/h)	*695*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*67.7*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*9.3*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*77.0*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*E*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.41*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*97*

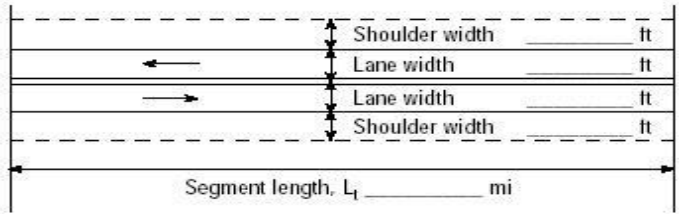
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*355*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*3.5*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Brentwood Blvd.*
Agency or Company		From/To	*E Sims Rd. and Delta Rd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☑ Class I highway ☐ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*1537* veh/h
Directional split	*55 / 45*
Peak-hour factor, PHF	*0.96*
No-passing zone	*100*
% Trucks and Buses , P_T	*10* %
% Recreational vehicles, P_R	*0*%
Access points/ *mi*	*20*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1617*
v_p * highest directional split proportion[2] (pc/h)	*889*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*40 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*40.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.5*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*26.0*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1601*
v_p * highest directional split proportion[2] (pc/h)	*881*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*75.5*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*6.8*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*82.3*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*E*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.51*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*120*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*461*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*4.6*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

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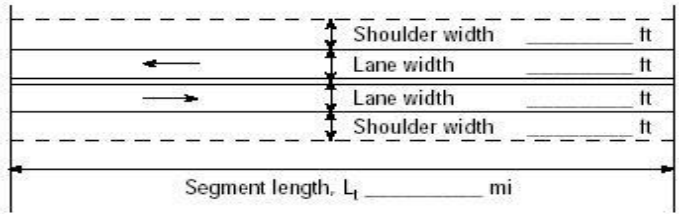
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Brentwood Blvd.*
Agency or Company		From/To	*Grant St. to Sunset Ct.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☑ Class I highway ☐ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*1462* veh/h
Directional split	*52 / 48*
Peak-hour factor, PHF	*0.97*
No-passing zone	*100*
% Trucks and Buses , P_T	*10* %
% Recreational vehicles, P_R	*0*%
Access points/ *mi*	*10*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1522*
v_p * highest directional split proportion[2] (pc/h)	*791*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.6*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*16.6*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1507*
v_p * highest directional split proportion[2] (pc/h)	*784*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*73.4*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*7.3*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*80.7*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*E*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.48*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*38*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*146*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*2.3*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

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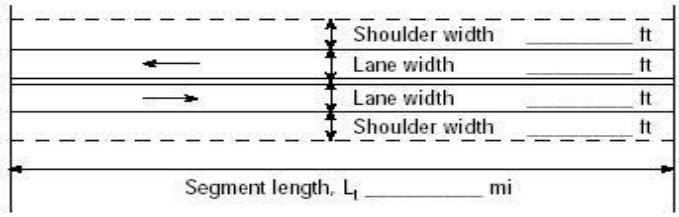
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Brentwood Blvd.*
Agency or Company		From/To	*Grant St. to Sunset Ct.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☑ Class I highway ☐ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*1822* veh/h
Directional split	*51 / 49*
Peak-hour factor, PHF	*0.90*
No-passing zone	*100*
% Trucks and Buses , P_T	*10* %
% Recreational vehicles, P_R	*0*%
Access points/ *mi*	*10*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*2045*
v_p * highest directional split proportion[2] (pc/h)	*1043*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.1*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*13.0*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*2024*
v_p * highest directional split proportion[2] (pc/h)	*1032*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*83.1*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*4.3*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*87.4*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*E*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.64*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*51*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*182*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*3.9*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

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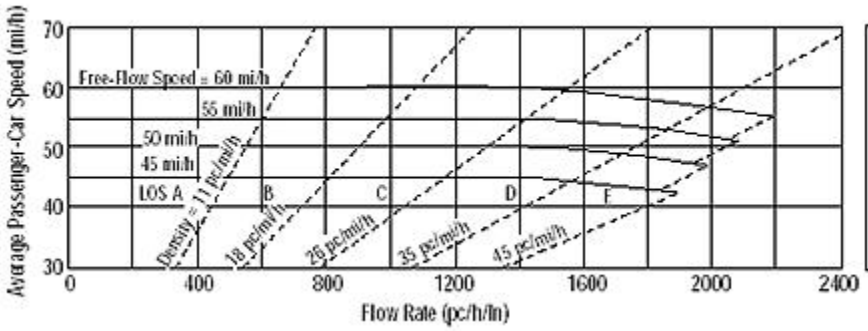
MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Central Blvd. to Spruce S
Jurisdiction	City of Brentwood
Analysis Year	Existing

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	543	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

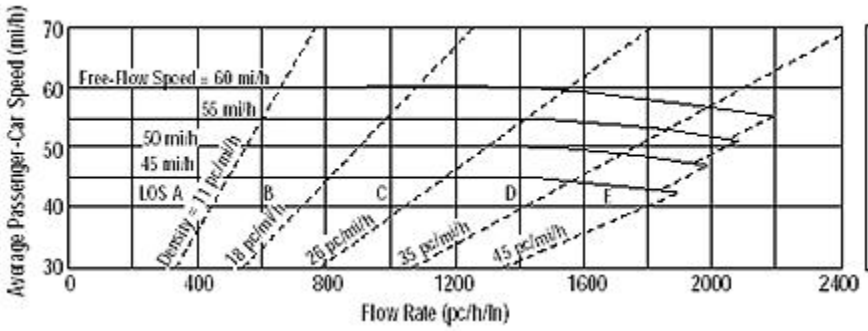
Flow Rate, v_p (pc/h/ln)	316
Speed, S (mi/h)	45.0
D (pc/mi/ln)	7.0
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Central Blvd. to Spruce S
Jurisdiction	City of Brentwood
Analysis Year	Existing

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	597	Peak-Hour Factor, PHF	0.95
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

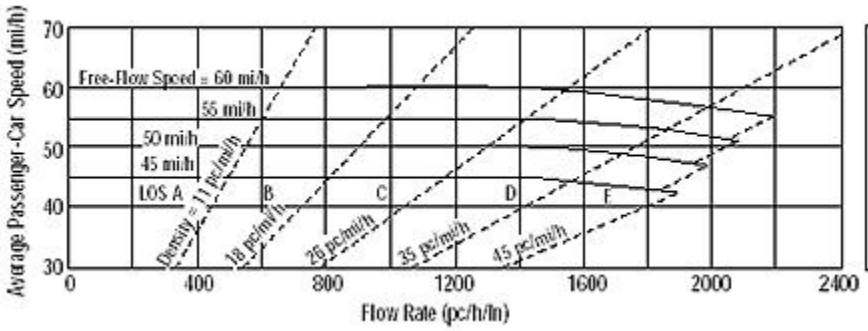
Flow Rate, v_p (pc/h/ln)	329
Speed, S (mi/h)	45.0
D (pc/mi/ln)	7.3
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Central Blvd. to Spruce S
Jurisdiction	City of Brentwood
Analysis Year	Existing

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	634	Peak-Hour Factor, PHF	0.78
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

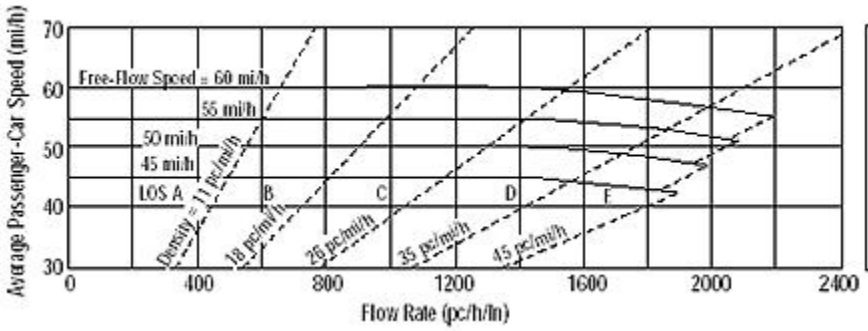
Flow Rate, v_p (pc/h/ln)	426
Speed, S (mi/h)	45.0
D (pc/mi/ln)	9.5
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Central Blvd. to Spruce S
Jurisdiction	City of Brentwood
Analysis Year	Existing

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	763	Peak-Hour Factor, PHF	0.99
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

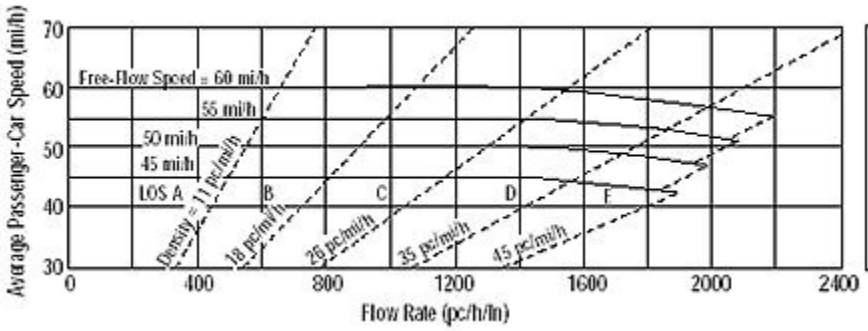
Flow Rate, v_p (pc/h/ln)	404
Speed, S (mi/h)	45.0
D (pc/mi/ln)	9.0
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Pine Ave. to Oak Ave.
Jurisdiction	City of Brentwood
Analysis Year	Existing

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	523	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

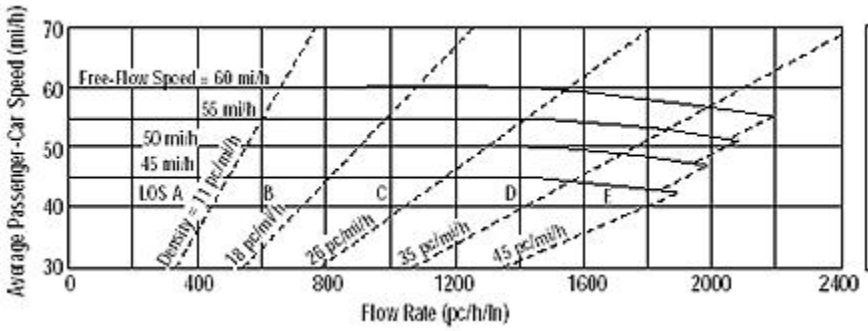
Flow Rate, v_p (pc/h/ln)	305
Speed, S (mi/h)	45.0
D (pc/mi/ln)	6.8
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Pine Ave. to Oak Ave.
Jurisdiction	City of Brentwood
Analysis Year	Existing

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	457	Peak-Hour Factor, PHF	0.88
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

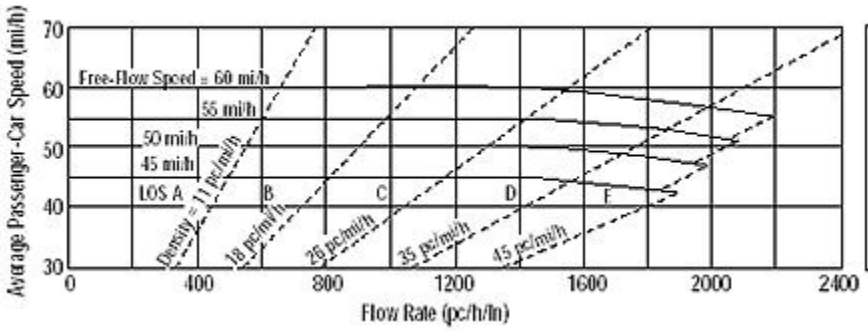
Flow Rate, v_p (pc/h/ln)	272
Speed, S (mi/h)	45.0
D (pc/mi/ln)	6.0
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Pine Ave. to Oak Ave.
Jurisdiction	City of Brentwood
Analysis Year	Existing

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	614	Peak-Hour Factor, PHF	0.97
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

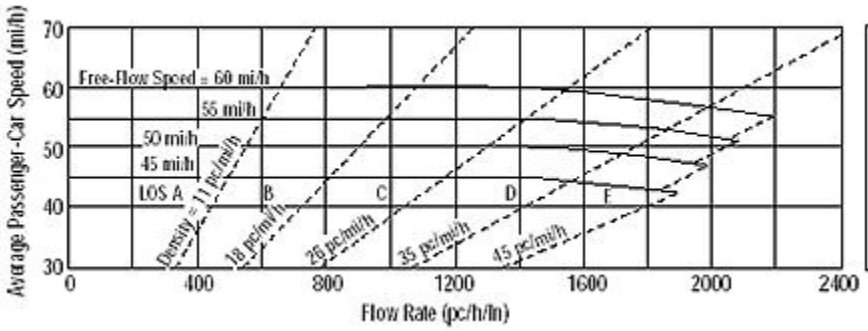
Flow Rate, v_p (pc/h/ln)	332
Speed, S (mi/h)	45.0
D (pc/mi/ln)	7.4
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Pine Ave. to Oak Ave.
Jurisdiction	City of Brentwood
Analysis Year	Existing

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	621	Peak-Hour Factor, PHF	0.97
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	336
Speed, S (mi/h)	45.0
D (pc/mi/ln)	7.5
LOS	A

Design

Design (N)

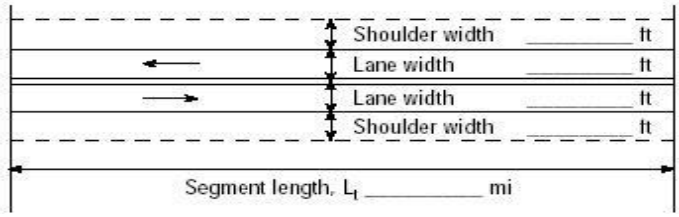
Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Delta Rd.*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*362* veh/h
Directional split	*58 / 42*
Peak-hour factor, PHF	*0.76*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*40*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*483*
v_p * highest directional split proportion[2] (pc/h)	*280*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*50 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*50.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*46.3*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*477*
v_p * highest directional split proportion[2] (pc/h)	*277*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*34.2*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.2*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*34.5*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.15*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*119*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*362*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*2.6*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

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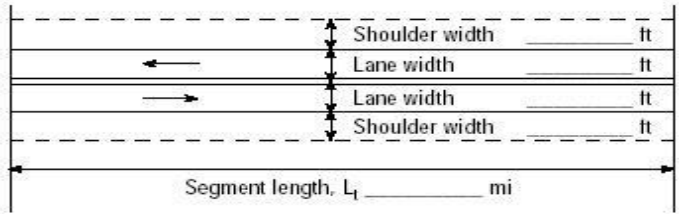
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Delta Rd.*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*318* veh/h
Directional split	*51 / 49*
Peak-hour factor, PHF	*0.91*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*40*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*354*
v_p * highest directional split proportion[2] (pc/h)	*181*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*50 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*50.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*47.3*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*350*
v_p * highest directional split proportion[2] (pc/h)	*179*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*26.5*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.1*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*26.6*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.11*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*87*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*318*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*1.8*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

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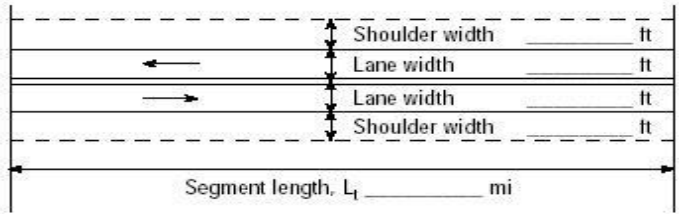
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Lone Tree Wy.*
Agency or Company		From/To	*West of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*468* veh/h
Directional split	*64 / 36*
Peak-hour factor, PHF	*0.92*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*30*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*516*
v_p * highest directional split proportion[2] (pc/h)	*330*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*35 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*35.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*4.2*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*26.8*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*510*
v_p * highest directional split proportion[2] (pc/h)	*326*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*36.1*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*21.6*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*57.7*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.16*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*127*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*468*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*4.7*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

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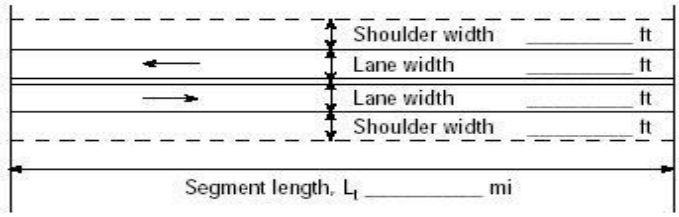
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Lone Tree Wy.*
Agency or Company		From/To	*West of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*501* veh/h
Directional split	*53 / 47*
Peak-hour factor, PHF	*0.92*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*30*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*552*
v_p * highest directional split proportion[2] (pc/h)	*293*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*35 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*35.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*4.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*26.7*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*546*
v_p * highest directional split proportion[2] (pc/h)	*289*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*38.1*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*21.5*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*59.6*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.17*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*136*

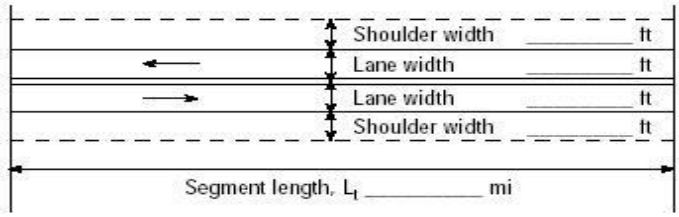
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*501*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*5.1*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Sunset Ave*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*522* veh/h
Directional split	*63 / 37*
Peak-hour factor, PHF	*0.88*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*20*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*596*
v_p * highest directional split proportion[2] (pc/h)	*375*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*3.9*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*21.5*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*594*
v_p * highest directional split proportion[2] (pc/h)	*374*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*40.7*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*20.8*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*61.5*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.19*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*148*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*522*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*6.9*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

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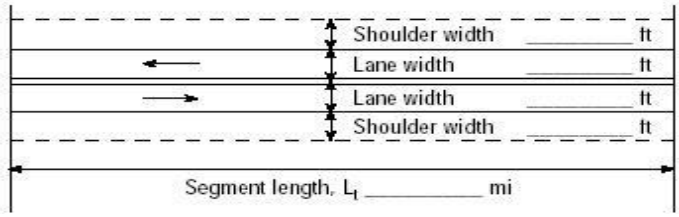
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Sunset Ave*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*534* veh/h
Directional split	*57 / 43*
Peak-hour factor, PHF	*0.88*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*20*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*609*
v_p * highest directional split proportion[2] (pc/h)	*347*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*3.9*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*21.4*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*608*
v_p * highest directional split proportion[2] (pc/h)	*347*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*41.4*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*20.4*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*61.8*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.19*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*152*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*534*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*7.1*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

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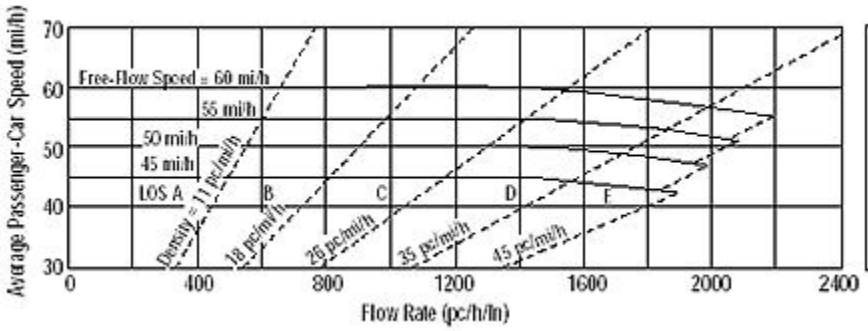
MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Central Blvd.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Existing

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	120	Peak-Hour Factor, PHF	0.86
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

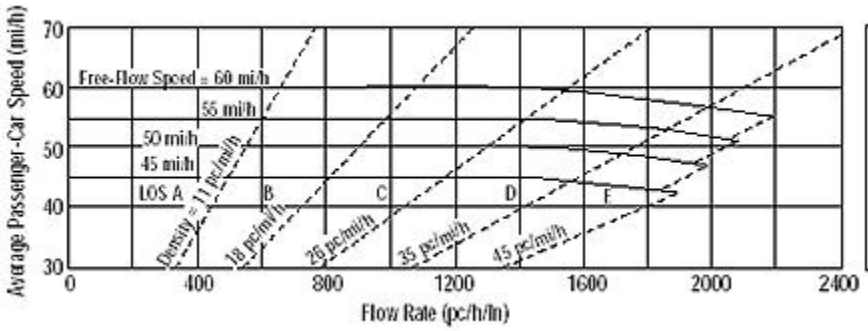
Flow Rate, v_p (pc/h/ln)	70
Speed, S (mi/h)	45.0
D (pc/mi/ln)	1.6
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Central Blvd.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Existing

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	279	Peak-Hour Factor, PHF	0.88
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

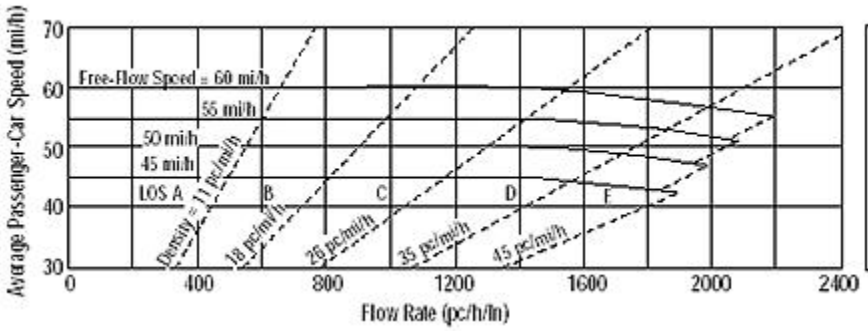
Flow Rate, v_p (pc/h/ln)	160
Speed, S (mi/h)	45.0
D (pc/mi/ln)	3.6
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Central Blvd.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Existing

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	215	Peak-Hour Factor, PHF	0.84
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

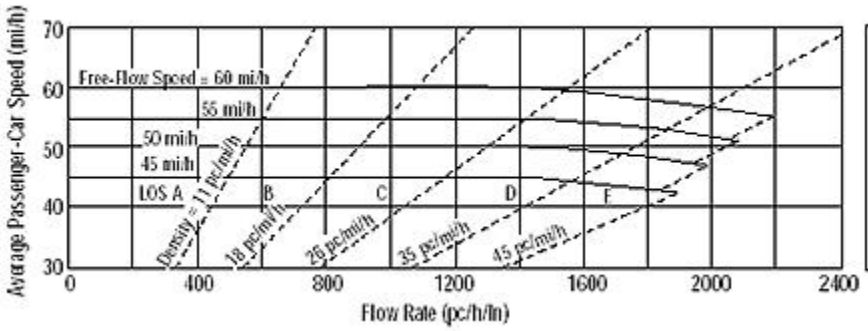
Flow Rate, v_p (pc/h/ln)	129
Speed, S (mi/h)	45.0
D (pc/mi/ln)	2.9
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Central Blvd.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Existing

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	290	Peak-Hour Factor, PHF	0.76
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	192
Speed, S (mi/h)	45.0
D (pc/mi/ln)	4.3
LOS	A

Design

Design (N)

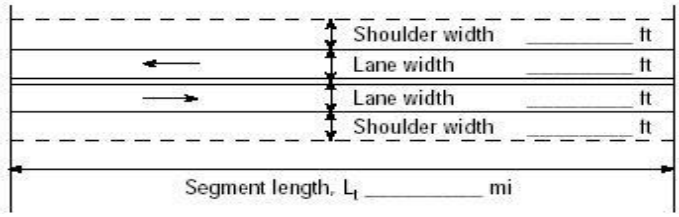
Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Grant St.*
Agency or Company		From/To	*West of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*301* veh/h
Directional split	*55 / 45*
Peak-hour factor, PHF	*0.71*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*7*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*430*
v_p * highest directional split proportion[2] (pc/h)	*237*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*4.4*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*22.3*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*425*
v_p * highest directional split proportion[2] (pc/h)	*234*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*31.2*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*23.1*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*54.3*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.13*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*106*

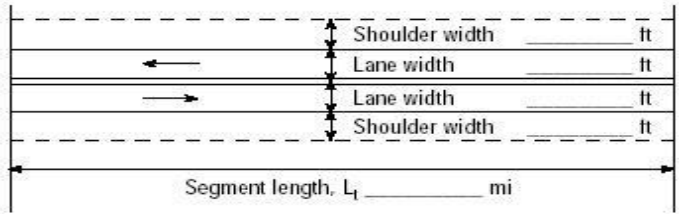
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*301*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*4.8*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Grant St.*
Agency or Company		From/To	*West of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*244* veh/h
Directional split	*55 / 45*
Peak-hour factor, PHF	*0.87*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*7*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*284*
v_p * highest directional split proportion[2] (pc/h)	*156*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*3.9*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*23.9*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*281*
v_p * highest directional split proportion[2] (pc/h)	*155*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*21.9*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*23.1*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*44.9*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.09*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*70*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*244*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*2.9*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

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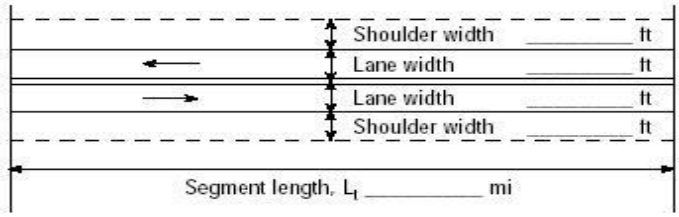
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Sycamore Ave.*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*358* veh/h
Directional split	*60 / 40*
Peak-hour factor, PHF	*0.87*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*35*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*417*
v_p * highest directional split proportion[2] (pc/h)	*250*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*4.4*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*22.3*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*412*
v_p * highest directional split proportion[2] (pc/h)	*247*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*30.4*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*22.1*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*52.5*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.13*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*51*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*179*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*2.3*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

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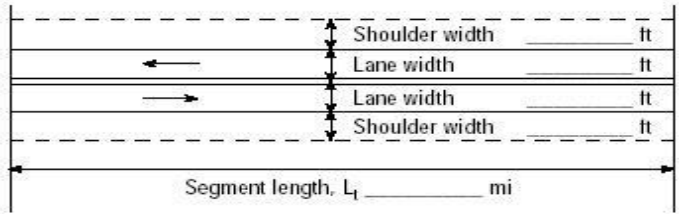
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Sycamore Ave.*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*339* veh/h
Directional split	*53 / 47*
Peak-hour factor, PHF	*0.82*
No-passing zone	*100*
% Trucks and Buses , P_T	*2 %*
% Recreational vehicles, P_R	*4%*
Access points/ *mi*	*35*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*419*
v_p * highest directional split proportion[2] (pc/h)	*222*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*4.4*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*22.3*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*414*
v_p * highest directional split proportion[2] (pc/h)	*219*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*30.5*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*23.8*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*54.3*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.13*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*52*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*170*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*2.3*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

Appendix B:

Analysis Worksheets for
Existing plus Approved Projects Conditions

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Brentwood Blvd. @ Delta Road

Average Delay (sec/veh): 10.6 Worst Case Level Of Service: F[105.2]

Street Name:	Brentwood Blvd.						Delta Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 0 1 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	596	39	68	499	0	0	0	0	63	0	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	596	39	68	499	0	0	0	0	63	0	89
Added Vol:	0	146	0	0	65	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	742	39	68	564	0	0	0	0	63	0	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.91	0.91	0.91
PHF Volume:	0	823	43	76	629	0	0	0	0	70	0	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	823	43	76	629	0	0	0	0	70	0	98
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	7.1	6.5	6.2	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	866	xxxx	xxxxx	1674	1646	629	1625	1625	844
Potent Cap.:	xxxx	xxxx	xxxxx	745	xxxx	xxxxx	76	99	482	113	102	363
Move Cap.:	xxxx	xxxx	xxxxx	745	xxxx	xxxxx	51	89	482	104	92	363
Volume/Cap:	xxxx	xxxx	xxxx	0.10	xxxx	xxxx	0.00	0.00	0.00	0.67	0.00	0.27
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	10.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0	xxxxx	xxxx	178	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	7.3	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	105	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			105.2		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #2 Sellers Ave @ Delta

Cycle (sec):	100	Critical Vol./Cap.(X):	0.410
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.6
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Sellers Ave.						Delta Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	44	125	69	13	202	37	18	107	85	110	123	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	44	125	69	13	202	37	18	107	85	110	123	12
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	125	69	13	202	37	18	107	85	110	123	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	44	125	69	13	202	37	18	107	85	110	123	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	125	69	13	202	37	18	107	85	110	123	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	44	125	69	13	202	37	18	107	85	110	123	12
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.18	0.53	0.29	0.05	0.80	0.15	0.09	0.51	0.40	0.45	0.50	0.05
Final Sat.:	114	324	179	32	493	90	52	311	247	268	300	29
Capacity Analysis Module:												
Vol/Sat:	0.39	0.39	0.39	0.41	0.41	0.41	0.34	0.34	0.34	0.41	0.41	0.41
Crit Moves:		****		****					****	****		
Delay/Veh:	11.4	11.4	11.4	11.8	11.8	11.8	10.9	10.9	10.9	12.1	12.1	12.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.4	11.4	11.4	11.8	11.8	11.8	10.9	10.9	10.9	12.1	12.1	12.1
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	B
ApproachDel:	11.4			11.8			10.9			12.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	11.4			11.8			10.9			12.1		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	0.5	0.5	0.5	0.6	0.6	0.6	0.4	0.4	0.4	0.6	0.6	0.6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Brentwood Blvd. @ E. Sims Road

Average Delay (sec/veh): 4.2 Worst Case Level Of Service: F[60.3]

Street Name:	Brentwood Blvd.						E. Sims Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	606	26	21	528	0	0	0	0	44	0	35
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	606	26	21	528	0	0	0	0	44	0	35
Added Vol:	0	146	3	0	65	0	0	0	0	9	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	752	29	21	593	0	0	0	0	53	0	35
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.87	0.87	0.87	1.00	1.00	1.00	0.79	0.79	0.79
PHF Volume:	0	800	31	24	678	0	0	0	0	67	0	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	800	31	24	678	0	0	0	0	67	0	44
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	831	xxxx	xxxxx	xxxx	xxxx	xxxxx	1542	1542	815
Potent Cap.:	xxxx	xxxx	xxxxx	768	xxxx	xxxxx	xxxx	xxxx	xxxxx	127	115	377
Move Cap.:	xxxx	xxxx	xxxxx	768	xxxx	xxxxx	xxxx	xxxx	xxxxx	124	111	377
Volume/Cap:	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.54	0.00	0.12
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	9.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	169	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	3.8	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	9.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	60.3	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			60.3		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #4 Brentwood Blvd @ Lone Tree Way (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.530
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	A

Street Name:	Brentwood Blvd						Lone Tree Way (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	1 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	206	359	17	11	531	196	135	8	93	39	10	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	206	359	17	11	531	196	135	8	93	39	10	9
Added Vol:	60	149	6	0	73	0	0	0	47	17	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	266	508	23	11	604	196	135	8	140	56	10	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	266	508	23	11	604	196	135	8	140	56	10	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	266	508	23	11	604	196	135	8	140	56	10	9
RTOR Reduct:	0	0	23	0	0	0	0	0	140	0	0	9
RTOR Vol:	266	508	0	11	604	196	135	8	0	56	10	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	266	508	0	11	604	196	135	8	0	56	10	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.51	0.49	0.94	0.06	1.00	0.85	0.15	1.00
Final Sat.:	1650	1650	1650	1650	2492	809	1558	92	1650	1400	250	1650
Capacity Analysis Module:												
Vol/Sat:	0.16	0.31	0.00	0.01	0.24	0.24	0.09	0.09	0.00	0.04	0.04	0.00
Crit Volume:	266				400			143			66	
Crit Moves:	****				****			****			****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Arroyo Seco Road @ Lone Tree Way

Average Delay (sec/veh): 4.0 Worst Case Level Of Service: A[8.9]

Street Name:	Arroyo Seco Road						Lone Tree Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0	0 0	0	0 0	0 0	0	0 0	0 1	0	0 0	1 0	0
Volume Module:												
Base Vol:	52	0	0	0	0	0	0	2	34	0	4	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	52	0	0	0	0	0	0	2	34	0	4	0
Added Vol:	0	0	0	0	0	0	0	6	0	0	17	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	52	0	0	0	0	0	0	8	34	0	21	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	52	0	0	0	0	0	0	8	34	0	21	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	52	0	0	0	0	0	0	8	34	0	21	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	46	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	964	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	964	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.05	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	8.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	8.9			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	A			*			*			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #6 Brentwood Blvd. @ Sunrise Drive

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: E[39.8]

Street Name:	Brentwood Blvd.						Sunrise Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 1	0	0	0 0 0	1	0	0 0 1!	0	0	0 0 0	0	0
Volume Module:												
Base Vol:	2	683	0	0	704	0	7	0	8	0	0	0
Growth Adj:	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	683	0	0	704	0	7	0	8	0	0	0
Added Vol:	4	213	0	0	136	1	1	0	3	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	896	0	0	840	1	8	0	11	0	0	0
User Adj:	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87 0.87	0.87	0.93	0.93 0.93	0.75	0.75	0.75	1.00	1.00	1.00		
PHF Volume:	7	1036	0	0	907	1	11	0	15	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	7	1036	0	0	907	1	11	0	15	0	0	0
Critical Gap Module:												
Critical Gp:	4.2 xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	
FollowUpTim:	2.3 xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	
Capacity Module:												
Cnflict Vol:	908 xxxx	xxxxx	xxxx	xxxx	xxxxx	1957	1957	908	xxxx	xxxx	xxxxx	
Potent Cap.:	717 xxxx	xxxxx	xxxx	xxxx	xxxxx	70	64	334	xxxx	xxxx	xxxxx	
Move Cap.:	717 xxxx	xxxxx	xxxx	xxxx	xxxxx	69	63	334	xxxx	xxxx	xxxxx	
Volume/Cap:	0.01 xxxx	xxxx	xxxx	xxxx	xxxx	0.15	0.00	0.04	xxxx	xxxx	xxxx	
Level Of Service Module:												
2Way95thQ:	0.0 xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
Control Del:	10.1 xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
LOS by Move:	B	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	128	xxxxx	xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.7	xxxxx	xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	39.8	xxxxx	xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	E	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			39.8			xxxxxx		
ApproachLOS:	*			*			E			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Brentwood Blvd. @ Gregory Lane

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: D[34.4]

Street Name:	Brentwood Blvd.						Gregory Ln.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0	1 0	0	1 0	1 0	0	1 0	0 1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	6 705	0	0	713	6	6	0	7	0	0	0	
Growth Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	6 705	0	0	713	6	6	0	7	0	0	0	
Added Vol:	3 217	0	0	139	0	0	0	8	0	0	0	
PasserByVol:	0 0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	9 922	0	0	852	6	6	0	15	0	0	0	
User Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	0.88 0.88	0.88	0.93	0.93	0.93	0.65	0.65	0.65	1.00	1.00	1.00	
PHF Volume:	10 1043	0	0	919	6	9	0	23	0	0	0	
Reduct Vol:	0 0	0	0	0	0	0	0	0	0	0	0	
FinalVolume:	10 1043	0	0	919	6	9	0	23	0	0	0	
Critical Gap Module:												
Critical Gp:	4.2 xxxx xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	7.1	6.5	6.2		
FollowUpTim:	2.3 xxxx xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3		
Capacity Module:												
Cnflict Vol:	926 xxxx xxxxx	xxxx	xxxx	xxxxx	1986	1986	922	1997	1989	1043		
Potent Cap.:	706 xxxx xxxxx	xxxx	xxxx	xxxxx	67	61	327	45	61	279		
Move Cap.:	706 xxxx xxxxx	xxxx	xxxx	xxxxx	66	60	327	41	60	279		
Volume/Cap:	0.01 xxxx xxxx	xxxx	xxxx	xxxx	0.14	0.00	0.07	0.00	0.00	0.00		
Level Of Service Module:												
2Way95thQ:	0.0 xxxx xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		
Control Del:	10.2 xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		
LOS by Move:	B *	*	*	*	*	*	*	*	*	*		
Movement:	LT - LTR - RT	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT				
Shared Cap.:	xxxx xxxx xxxxx	xxxx	xxxx	xxxxx	xxxx	154	xxxxx	xxxx	0	xxxxx		
SharedQueue:	xxxxx xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.8	xxxxx	xxxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	34.4	xxxxx	xxxxx	xxxx	xxxxx		
Shared LOS:	* *	*	*	*	*	D	*	*	*	*		
ApproachDel:	xxxxxx	xxxxxx			34.4			xxxxxx				
ApproachLOS:	*	*			D			*				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Brentwood Blvd. @ Hanson Lane

Average Delay (sec/veh): 2.5 Worst Case Level Of Service: F[88.0]

Street Name:	Brentwood Blvd.						Hanson Ln					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	683	8	21	699	0	0	0	0	19	0	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	683	8	21	699	0	0	0	0	19	0	25
Added Vol:	0	219	3	0	147	0	0	0	0	8	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	902	11	21	846	0	0	0	0	27	0	25
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.83	0.83	0.83	1.00	1.00	1.00	0.92	0.92	0.92
PHF Volume:	0	987	12	25	1021	0	0	0	0	29	0	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	987	12	25	1021	0	0	0	0	29	0	27
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	999	xxxx	xxxxx	xxxx	xxxx	xxxxx	2064	2064	993
Potent Cap.:	xxxx	xxxx	xxxxx	662	xxxx	xxxxx	xxxx	xxxx	xxxxx	60	55	298
Move Cap.:	xxxx	xxxx	xxxxx	662	xxxx	xxxxx	xxxx	xxxx	xxxxx	58	52	298
Volume/Cap:	xxxx	xxxx	xxxx	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	0.51	0.00	0.09
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	10.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	95	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.8	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	10.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	88.0	xxxxx
Shared LOS:	*	*	*	B	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			88.0		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Brentwood Blvd. @ Homecoming Way

Average Delay (sec/veh): 2.4 Worst Case Level Of Service: F[85.1]

Street Name:	Brentwood Blvd.						Homecoming Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 1	0	1 0	1 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	706	19	20	739	0	0	0	0	10	0	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	706	19	20	739	0	0	0	0	10	0	19
Added Vol:	0	222	3	0	155	0	0	0	0	8	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	928	22	20	894	0	0	0	0	18	0	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.91	0.91	0.91	1.00	1.00	1.00	0.66	0.66	0.66
PHF Volume:	0	1039	25	22	985	0	0	0	0	27	0	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1039	25	22	985	0	0	0	0	27	0	29
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1064	xxxx	xxxxx	xxxx	xxxx	xxxxx	2080	2080	1052
Potent Cap.:	xxxx	xxxx	xxxxx	625	xxxx	xxxxx	xxxx	xxxx	xxxxx	59	53	275
Move Cap.:	xxxx	xxxx	xxxxx	625	xxxx	xxxxx	xxxx	xxxx	xxxxx	57	51	275
Volume/Cap:	xxxx	xxxx	xxxx	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	0.48	0.00	0.10
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	11.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	96	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.7	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	85.1	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			85.1		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #10 Brentwood Blvd. @ Grant Street / Sunset Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.784
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	105	Level Of Service:	C

Street Name:	Brentwood Blvd.						Grant Street / Sunset Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	0 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	51	628	76	63	551	51	35	53	46	146	65	119
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	51	628	76	63	551	51	35	53	46	146	65	119
Added Vol:	0	162	25	21	142	0	0	0	0	74	0	63
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	51	790	101	84	693	51	35	53	46	220	65	182
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	51	790	101	84	693	51	35	53	46	220	65	182
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	790	101	84	693	51	35	53	46	220	65	182
RTOR Reduct:	0	0	101	0	0	0	0	0	0	0	0	84
RTOR Vol:	51	790	0	84	693	51	35	53	46	220	65	98
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	51	790	0	84	693	51	35	53	46	220	65	98
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.93	0.07	0.26	0.40	0.34	0.77	0.23	1.00
Final Sat.:	1650	1650	1650	1650	1537	113	431	653	566	1274	376	1650
Capacity Analysis Module:												
Vol/Sat:	0.03	0.48	0.00	0.05	0.45	0.45	0.08	0.08	0.08	0.17	0.17	0.06
Crit Volume:		790		84					134		285	
Crit Moves:		****		****					****		****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #11 Brentwood Blvd. @ Sunset Ct.

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: C[19.0]

Street Name:	Brentwood Blvd.						Sunset Ct.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 0 0 1		
Volume Module:												
Base Vol:	0	724	7	13	694	0	0	0	0	0	0	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	724	7	13	694	0	0	0	0	0	0	17
Added Vol:	0	186	0	0	217	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	910	7	13	911	0	0	0	0	0	0	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.91	0.91	0.91	1.00	1.00	1.00	0.73	0.73	0.73
PHF Volume:	0	1035	8	14	1000	0	0	0	0	0	0	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1035	8	14	1000	0	0	0	0	0	0	23
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1043	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	1039
Potent Cap.:	xxxx	xxxx	xxxxx	637	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	280
Move Cap.:	xxxx	xxxx	xxxxx	637	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	280
Volume/Cap:	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.08
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.3
Control Del:	xxxxx	xxxx	xxxxx	10.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	19.0
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	C
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			19.0		
ApproachLOS:	*			*			*			C		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #12 Brentwood Blvd. @ Havenwood Ave.

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: F[89.4]

Street Name:	Brentwood Blvd.						Havenwood Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 1	0	1	1 0 0	1	0	0 0 0	0	1	0 0 1!	0	0
Volume Module:												
Base Vol:	5 748		26	16 674		12	0 0		11	5	0	16
Growth Adj:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
Initial Bse:	5 748		26	16 674		12	0 0		11	5	0	16
Added Vol:	0 186		4	0 196		0	0 0		0	13	0	0
PasserByVol:	0 0		0	0 0		0	0 0		0	0	0	0
Initial Fut:	5 934		30	16 870		12	0 0		11	18	0	16
User Adj:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
PHF Adj:	0.96 0.96		0.96	0.98 0.98		0.98	0.88 0.88		0.88	0.88 0.88		0.88
PHF Volume:	5 978		31	16 892		12	0 0		13	21	0	18
Reduct Vol:	0 0		0	0 0		0	0 0		0	0	0	0
FinalVolume:	5 978		31	16 892		12	0 0		13	21	0	18
Critical Gap Module:												
Critical Gp:	4.2 xxxx xxxxx			4.2 xxxx xxxxx			xxxxx xxxx		6.2	7.1	6.5	6.2
FollowUpTim:	2.3 xxxx xxxxx			2.3 xxxx xxxxx			xxxxx xxxx		3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	905 xxxx xxxxx			1009 xxxx xxxxx			xxxx xxxx		898	1926	1926	978
Potent Cap.:	720 xxxx xxxxx			656 xxxx xxxxx			xxxx xxxx		338	50	67	304
Move Cap.:	720 xxxx xxxxx			656 xxxx xxxxx			xxxx xxxx		338	47	64	304
Volume/Cap:	0.01 xxxx xxxx			0.03 xxxx xxxx			xxxx xxxx		0.04	0.43	0.00	0.06
Level Of Service Module:												
2Way95thQ:	0.0 xxxx xxxxx			0.1 xxxx xxxxx			xxxx xxxx		0.1	xxxx	xxxx	xxxxx
Control Del:	10.0 xxxx xxxxx			10.6 xxxx xxxxx			xxxxx xxxx		16.1	xxxxx	xxxx	xxxxx
LOS by Move:	B *		*	B *		*	* *		C	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx	78	xxxxx
SharedQueue:	xxxxx xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx	2.1	xxxxx
Shrd ConDel:	xxxxx xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx	89.4	xxxxx
Shared LOS:	* *		*	* *		*	* *		*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			16.1			89.4		
ApproachLOS:	*			*			C			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #13 Brentwood Blvd. @ Applewood Common

Cycle (sec):	100	Critical Vol./Cap.(X):	0.620
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Brentwood Blvd.						Applewood Common					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	13	723	38	18	623	7	16	2	18	37	0	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	13	723	38	18	623	7	16	2	18	37	0	23
Added Vol:	4	202	4	0	205	3	9	0	10	13	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	925	42	18	828	10	25	2	28	50	0	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	17	925	42	18	828	10	25	2	28	50	0	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	925	42	18	828	10	25	2	28	50	0	23
RTOR Reduct:	0	0	42	0	0	0	0	0	0	0	0	0
RTOR Vol:	17	925	0	18	828	10	25	2	28	50	0	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	17	925	0	18	828	10	25	2	28	50	0	23
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.99	0.01	1.00	0.07	0.93	1.00	0.00	1.00
Final Sat.:	1650	1650	1650	1650	1630	20	1650	110	1540	1650	0	1650
Capacity Analysis Module:												
Vol/Sat:	0.01	0.56	0.00	0.01	0.51	0.51	0.02	0.02	0.02	0.03	0.00	0.01
Crit Volume:		925		18				30		50		
Crit Moves:		****		****				****		****		

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #14 Brentwood Blvd. @ Sand Creek Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.481
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Street Name:	Brentwood Blvd.						Sand Creek Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	0	0	0
Lanes:	1 0	2 0	0	1 0	1 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	136	440	0	0	574	156	120	0	95	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	136	440	0	0	574	156	120	0	95	0	0	0
Added Vol:	67	184	0	0	175	52	26	0	21	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	203	624	0	0	749	208	146	0	116	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	203	624	0	0	749	208	146	0	116	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	203	624	0	0	749	208	146	0	116	0	0	0
RTOR Reduct:	0	0	0	0	0	0	0	0	116	0	0	0
RTOR Vol:	203	624	0	0	749	208	146	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	203	624	0	0	749	208	146	0	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	1.00	1.57	0.43	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1720	3440	0	1720	2692	748	1720	0	1720	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.12	0.18	0.00	0.00	0.28	0.28	0.08	0.00	0.00	0.00	0.00	0.00
Crit Volume:	203					479	146				0	
Crit Moves:	****					****	****					

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #15 Brentwood Blvd. @ Technology Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.256		
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx		
Optimal Cycle:	25	Level Of Service:	A		

Street Name:	Brentwood Blvd.						Technology Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	6	6	0	6	6	4	4	4	0	0	0
Lanes:	1 0	2 0	0	0 0	1 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	17	580	0	0	585	8	8	0	21	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	17	580	0	0	585	8	8	0	21	0	0	0
Added Vol:	16	246	0	0	182	15	5	0	5	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	33	826	0	0	767	23	13	0	26	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	33	826	0	0	767	23	13	0	26	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	826	0	0	767	23	13	0	26	0	0	0
RTOR Reduct:	0	0	0	0	0	0	0	0	26	0	0	0
RTOR Vol:	33	826	0	0	767	23	13	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	33	826	0	0	767	23	13	0	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.94	0.06	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1720	3440	0	0	3340	100	1720	0	1720	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.24	0.00	0.00	0.23	0.23	0.01	0.00	0.00	0.00	0.00	0.00
Crit Volume:	33				395		13				0	
Crit Moves:	****				****		****					

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #16 Brentwood Blvd @ Nancy Street (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.328
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	28	Level Of Service:	A

Street Name:	Brentwood Blvd						Nancy Street (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	7	7	4	7	7	0	0	0	4	4	4
Lanes:	0 0	1 1	0	1 0	2 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	591	23	58	642	0	0	0	0	46	0	34
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	591	23	58	642	0	0	0	0	46	0	34
Added Vol:	0	261	6	3	184	0	0	0	0	17	0	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	852	29	61	826	0	0	0	0	63	0	42
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	852	29	61	826	0	0	0	0	63	0	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	852	29	61	826	0	0	0	0	63	0	42
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	42
RTOR Vol:	0	852	29	61	826	0	0	0	0	63	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	852	29	61	826	0	0	0	0	63	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.93	0.07	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3327	113	1720	3440	0	0	0	0	1720	0	1720
Capacity Analysis Module:												
Vol/Sat:	0.00	0.26	0.26	0.04	0.24	0.00	0.00	0.00	0.00	0.04	0.00	0.00
Crit Volume:			441	61				0		63		
Crit Moves:			****	****						****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #17 Brentwood Blvd. @ Village Drive

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: E[39.7]

Street Name:	Brentwood Blvd.						Village Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	550	21	16	518	0	0	0	0	15	0	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	550	21	16	518	0	0	0	0	15	0	22
Added Vol:	0	267	0	0	202	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	817	21	16	720	0	0	0	0	15	0	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.81	0.81	0.81	1.00	1.00	1.00	0.66	0.66	0.66
PHF Volume:	0	853	22	20	885	0	0	0	0	23	0	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	853	22	20	885	0	0	0	0	23	0	33
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	875	xxxx	xxxxx	xxxx	xxxx	xxxxx	1788	1788	864
Potent Cap.:	xxxx	xxxx	xxxxx	739	xxxx	xxxxx	xxxx	xxxx	xxxxx	89	81	354
Move Cap.:	xxxx	xxxx	xxxxx	739	xxxx	xxxxx	xxxx	xxxx	xxxxx	88	79	354
Volume/Cap:	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.26	0.00	0.09
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	10.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	158	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.5	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	39.7	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	E	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			39.7		
ApproachLOS:	*			*			*			E		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #18 Brentwood Blvd. @ Central Blvd / Sycamore Ave (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.537
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	A

Street Name:	Brentwood Blvd.						Central Blvd / Sycamore Ave (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	15	15	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	1	1 0	1 0	1	0	1 0	1	0 1
Volume Module:												
Base Vol:	41	471	31	62	446	59	37	49	34	37	90	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	471	31	62	446	59	37	49	34	37	90	89
Added Vol:	2	116	11	16	145	41	103	10	7	32	29	48
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	43	587	42	78	591	100	140	59	41	69	119	137
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	43	587	42	78	591	100	140	59	41	69	119	137
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	587	42	78	591	100	140	59	41	69	119	137
RTOR Reduct:	0	0	42	0	0	0	0	0	0	0	0	78
RTOR Vol:	43	587	0	78	591	100	140	59	41	69	119	59
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	43	587	0	78	591	100	140	59	41	69	119	59
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.71	0.29	1.00	1.18	0.82	1.00	1.00	1.00
Final Sat.:	1720	1720	1720	1720	2942	498	1720	2030	1410	1720	1720	1720
Capacity Analysis Module:												
Vol/Sat:	0.03	0.34	0.00	0.05	0.20	0.20	0.08	0.03	0.03	0.04	0.07	0.03
Crit Volume:		587			78			140			119	
Crit Moves:		****			****			****			****	

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #20 Central Street @ Second Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.331
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 34 Level Of Service: A

Street Name:	Second Street						Central Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ignore		
Min. Green:	5	5	5	5	5	5	5	7	7	5	7	7
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	57	195	36	54	388	4	6	138	133	51	179	49
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	195	36	54	388	4	6	138	133	51	179	49
Added Vol:	23	0	0	0	0	0	0	119	49	0	72	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	80	195	36	54	388	4	6	257	182	51	251	49
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	80	195	36	54	388	4	6	257	182	51	251	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	195	36	54	388	4	6	257	182	51	251	49
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	80	195	36	54	388	4	6	257	182	51	251	49
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	80	195	36	54	388	4	6	257	182	51	251	49
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.69	0.31	1.00	1.98	0.02	1.00	1.17	0.83	1.00	2.00	1.00
Final Sat.:	1650	2786	514	1650	3266	34	1650	1932	1368	1650	3300	1650
Capacity Analysis Module:												
Vol/Sat:	0.05	0.07	0.07	0.03	0.12	0.12	0.00	0.13	0.13	0.03	0.08	0.03
Crit Volume:	80				196			220		51		
Crit Moves:	****				****			****		****		

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #21 Central Blvd @ Walnut Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.243
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 36 Level Of Service: A

Street Name:	Walnut Blvd						Central Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	5	7	7	5	7	7	5	7	7	5	7	7
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	14	3	103	2	0	1	2	380	22	122	264	6
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	14	3	103	2	0	1	2	380	22	122	264	6
Added Vol:	6	0	12	0	0	0	0	55	2	29	161	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	3	115	2	0	1	2	435	24	151	425	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	20	3	115	2	0	1	2	435	24	151	425	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	3	115	2	0	1	2	435	24	151	425	6
RTOR Reduct:	0	0	115	0	0	0	0	0	0	0	0	0
RTOR Vol:	20	3	0	2	0	1	2	435	24	151	425	6
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	3	0	2	0	1	2	435	24	151	425	6
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.90	0.10	1.00	1.97	0.03
Final Sat.:	1650	1650	1650	1650	0	1650	1650	3127	173	1650	3254	46
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.14	0.09	0.13	0.13
Crit Volume:	20					1		230		151		
Crit Moves:	****					****		****		****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #22 Brentwood Blvd @ Pine Street

Average Delay (sec/veh): 0.9 Worst Case Level Of Service: B[13.5]

Street Name:	Brentwood Blvd						Pine Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1	1 0		0 1	1 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	427	96	21	475	0	0	0	0	14	0	59
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	427	96	21	475	0	0	0	0	14	0	59
Added Vol:	0	120	6	0	181	0	0	0	0	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	547	102	21	656	0	0	0	0	15	0	59
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	547	102	21	656	0	0	0	0	15	0	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	547	102	21	656	0	0	0	0	15	0	59
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	649	xxxx	xxxxx	xxxx	xxxx	xxxxx	968	1296	325
Potent Cap.:	xxxx	xxxx	xxxxx	881	xxxx	xxxxx	xxxx	xxxx	xxxxx	251	161	671
Move Cap.:	xxxx	xxxx	xxxxx	881	xxxx	xxxxx	xxxx	xxxx	xxxxx	247	157	671
Volume/Cap:	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	0.06	0.00	0.09
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	498	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.5	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	13.5	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			13.5		
ApproachLOS:	*			*			*			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #23 Brentwood Blvd @ Maple Street

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: B[10.6]

Street Name:	Brentwood Blvd						Maple Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1 0	1	0	0 1 0	1	0	0 0 0	0	0	0 0 0	0	1
Volume Module:												
Base Vol:	0	511	31	18	477	0	0	0	0	0	0	13
Growth Adj:	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00
Initial Bse:	0	511	31	18	477	0	0	0	0	0	0	13
Added Vol:	0	117	5	16	166	0	0	0	0	0	0	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	628	36	34	643	0	0	0	0	0	0	21
User Adj:	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00
PHF Adj:	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00
PHF Volume:	0	628	36	34	643	0	0	0	0	0	0	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	628	36	34	643	0	0	0	0	0	0	21
Critical Gap Module:												
Critical Gp:	xxxxx xxxx xxxxx		4.3	xxxx xxxxx xxxxx		xxxx xxxxx xxxxx			6.9			
FollowUpTim:	xxxxx xxxx xxxxx		2.3	xxxx xxxxx xxxxx		xxxx xxxxx xxxxx			3.3			
Capacity Module:												
Cnflict Vol:	xxxx xxxx xxxxx		664	xxxx xxxxx		xxxx xxxx xxxxx			332			
Potent Cap.:	xxxx xxxx xxxxx		869	xxxx xxxxx		xxxx xxxx xxxxx			664			
Move Cap.:	xxxx xxxx xxxxx		869	xxxx xxxxx		xxxx xxxx xxxxx			664			
Volume/Cap:	xxxx xxxx	xxxx	0.04	xxxx	xxxx	xxxx xxxx	xxxx		0.03			
Level Of Service Module:												
2Way95thQ:	xxxx xxxx xxxxx		0.1	xxxx xxxxx		xxxx xxxx xxxxx			0.1			
Control Del:	xxxxx xxxx xxxxx		9.3	xxxx xxxxx		xxxxx xxxx xxxxx			10.6			
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	B
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx xxxxx		
SharedQueue:	0.0 xxxx xxxxx			0.1 xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx xxxx xxxxx		
Shrd ConDel:	9.0 xxxx xxxxx			9.3 xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx xxxx xxxxx		
Shared LOS:	A	*	*	A	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			10.6		
ApproachLOS:	*			*			*			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #24 Brentwood Blvd @ Oak Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.460
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	A

Street Name:	Brentwood Blvd.						Oak St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 1	0 1	0	1 0	1 0	1
Volume Module:												
Base Vol:	95	374	56	25	313	119	167	197	133	62	152	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	95	374	56	25	313	119	167	197	133	62	152	19
Added Vol:	14	114	6	0	152	14	8	2	18	19	7	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	109	488	62	25	465	133	175	199	151	81	159	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	109	488	62	25	465	133	175	199	151	81	159	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	109	488	62	25	465	133	175	199	151	81	159	20
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	20
RTOR Vol:	109	488	62	25	465	133	175	199	151	81	159	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	109	488	62	25	465	133	175	199	151	81	159	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.77	0.23	1.00	1.56	0.44	1.00	1.14	0.86	1.00	1.00	1.00
Final Sat.:	1650	2928	372	1650	2566	734	1500	1875	1425	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.07	0.17	0.17	0.02	0.18	0.18	0.12	0.11	0.11	0.05	0.10	0.00
Crit Volume:	109				299		175				159	
Crit Moves:	****				****		****				****	

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #25 Walnut Blvd @ Oak St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.394
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	A

Street Name:	Walnut Blvd						Oak St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	5	7	7	0	7	7	5	5	5	5	5	5
Lanes:	1 0	1 0	1	1 0	0 1	0	0 1	0 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	3	128	276	218	154	3	1	1	0	259	0	110
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	128	276	218	154	3	1	1	0	259	0	110
Added Vol:	0	4	10	18	13	0	0	0	0	21	0	14
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	132	286	236	167	3	1	1	0	280	0	124
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	132	286	236	167	3	1	1	0	280	0	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	132	286	236	167	3	1	1	0	280	0	124
RTOR Reduct:	0	0	280	0	0	0	0	0	0	0	0	124
RTOR Vol:	3	132	6	236	167	3	1	1	0	280	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	3	132	6	236	167	3	1	1	0	280	0	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.98	0.02	0.50	0.50	0.00	1.00	0.00	1.00
Final Sat.:	1650	1650	1650	1650	1621	29	825	825	0	1650	0	1650
Capacity Analysis Module:												
Vol/Sat:	0.00	0.08	0.00	0.14	0.10	0.10	0.00	0.00	0.00	0.17	0.00	0.00
Crit Volume:		132		236				2		280		
Crit Moves:		****		****				****		****		

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #26 Brentwood Blvd. @ Second St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.429
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	A

Street Name:	Brentwood Blvd.						Second St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	100	387	21	183	393	21	111	383	64	35	176	129
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	100	387	21	183	393	21	111	383	64	35	176	129
Added Vol:	11	109	0	15	155	1	3	20	26	0	12	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	111	496	21	198	548	22	114	403	90	35	188	148
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	111	496	21	198	548	22	114	403	90	35	188	148
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	111	496	21	198	548	22	114	403	90	35	188	148
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	148
RTOR Vol:	111	496	21	198	548	22	114	403	90	35	188	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	111	496	21	198	548	22	114	403	90	35	188	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.92	0.08	1.00	1.92	0.08	1.00	1.63	0.37	1.00	2.00	1.00
Final Sat.:	1720	3300	140	1720	3307	133	1720	2812	628	1720	3440	1720
Capacity Analysis Module:												
Vol/Sat:	0.06	0.15	0.15	0.12	0.17	0.17	0.07	0.14	0.14	0.02	0.05	0.00
Crit Volume:		259			198			247			35	
Crit Moves:		****			****			****			****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #27 Brentwood Blvd. @ Chestnut St.

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: D[25.5]

Street Name:	Brentwood Blvd.									Chestnut St.								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1!	0	0
Volume Module:																				
Base Vol:	0	498		34		50	461		0		0		0			19		0		44
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00			1.00		1.00		1.00
Initial Bse:	0	498		34		50	461		0		0		0			19		0		44
Added Vol:	0	133		6		0	189		0		0		0			11		0		0
PasserByVol:	0	0		0		0	0		0		0		0			0		0		0
Initial Fut:	0	631		40		50	650		0		0		0			30		0		44
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00			1.00		1.00		1.00
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00			1.00		1.00		1.00
PHF Volume:	0	631		40		50	650		0		0		0			30		0		44
Reduct Vol:	0	0		0		0	0		0		0		0			0		0		0
FinalVolume:	0	631		40		50	650		0		0		0			30		0		44
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx		xxxxx		4.2	xxxx		xxxxx		xxxxx		xxxx		xxxxx	6.4		6.5		6.2
FollowUpTim:	xxxxx	xxxx		xxxxx		2.3	xxxx		xxxxx		xxxxx		xxxx		xxxxx	3.5		4.0		3.3
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx		xxxxx		671	xxxx		xxxxx		xxxx		xxxx		xxxxx	1401		1401		651
Potent Cap.:	xxxx	xxxx		xxxxx		883	xxxx		xxxxx		xxxx		xxxx		xxxxx	154		140		469
Move Cap.:	xxxx	xxxx		xxxxx		883	xxxx		xxxxx		xxxx		xxxx		xxxxx	148		132		469
Volume/Cap:	xxxx	xxxx		xxxx		0.06	xxxx		xxxx		xxxx		xxxx		xxxx	0.20		0.00		0.09
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx		xxxxx		0.2	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		xxxx		xxxxx
Control Del:	xxxxx	xxxx		xxxxx		9.3	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
LOS by Move:	*	*		*		A	*		*		*		*		*	*		*		*
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		249		xxxxx
SharedQueue:	xxxxx	xxxx		xxxxx		0.2	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		1.2		xxxxx
Shrd ConDel:	xxxxx	xxxx		xxxxx		9.3	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		25.5		xxxxx
Shared LOS:	*	*		*		A	*		*		*		*		*	*		D		*
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					25.5				
ApproachLOS:	*					*					*					D				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #28 Brentwood Blvd. @ Balfour Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.605
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	B

Street Name:	Brentwood Blvd.						Balfour Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	8	10	10	6	10	10	5	5	5	4	5	5
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	1 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	235	322	14	38	293	228	248	340	323	37	427	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	235	322	14	38	293	228	248	340	323	37	427	61
Added Vol:	32	59	1	46	64	10	13	13	10	3	31	63
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	267	381	15	84	357	238	261	353	333	40	458	124
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	267	381	15	84	357	238	261	353	333	40	458	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	267	381	15	84	357	238	261	353	333	40	458	124
RTOR Reduct:	0	0	0	0	0	238	0	0	267	0	0	0
RTOR Vol:	267	381	15	84	357	0	261	353	66	40	458	124
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	267	381	15	84	357	0	261	353	66	40	458	124
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.57	0.43
Final Sat.:	1650	3300	1650	1650	3300	1650	1650	1650	1650	1650	2597	703
Capacity Analysis Module:												
Vol/Sat:	0.16	0.12	0.01	0.05	0.11	0.00	0.16	0.21	0.04	0.02	0.18	0.18
Crit Volume:	267				179		261					291
Crit Moves:	****				****		****					****

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #29 Sellers Ave. @ Sunet Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.557
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.0
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Sellers Ave.						Sunset Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1!	0 0	0 0	1!	0 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	77	175	8	13	275	103	45	59	65	19	65	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	77	175	8	13	275	103	45	59	65	19	65	24
Added Vol:	4	0	0	0	0	0	0	0	12	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	81	175	8	13	275	103	45	59	77	19	65	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	81	175	8	13	275	103	45	59	77	19	65	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	175	8	13	275	103	45	59	77	19	65	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	81	175	8	13	275	103	45	59	77	19	65	24
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.31	0.66	0.03	0.03	0.71	0.26	0.25	0.33	0.42	0.18	0.60	0.22
Final Sat.:	198	429	20	23	494	185	148	194	253	98	335	124
Capacity Analysis Module:												
Vol/Sat:	0.41	0.41	0.41	0.56	0.56	0.56	0.30	0.30	0.30	0.19	0.19	0.19
Crit Moves:		****			****			****			****	
Delay/Veh:	11.6	11.6	11.6	13.6	13.6	13.6	10.6	10.6	10.6	9.9	9.9	9.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.6	11.6	11.6	13.6	13.6	13.6	10.6	10.6	10.6	9.9	9.9	9.9
LOS by Move:	B	B	B	B	B	B	B	B	B	A	A	A
ApproachDel:	11.6			13.6			10.6			9.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	11.6			13.6			10.6			9.9		
LOS by Appr:	B			B			B			A		
AllWayAvgQ:	0.6	0.6	0.6	1.1	1.1	1.1	0.3	0.3	0.3	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Brentwood Blvd. @ Delta Road

Average Delay (sec/veh): 39.4 Worst Case Level Of Service: F[443.2]

Street Name:	Brentwood Blvd.									Delta Rd.								
Approach:	North Bound						South Bound						East Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign					
Rights:	Include						Include						Include					
Lanes:	0	0	0	1	0		1	0	0	1	0		0	0	1!	0	0	
Volume Module:																		
Base Vol:	0	738	104				63	611	0				0	0	0			
Growth Adj:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
Initial Bse:	0	738	104				63	611	0				0	0	0			
Added Vol:	0	106	0				0	199	0				0	0	0			
PasserByVol:	0	0	0				0	0	0				0	0	0			
Initial Fut:	0	844	104				63	810	0				0	0	0			
User Adj:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
PHF Adj:	0.93	0.93	0.93				0.94	0.94	0.94				1.00	1.00	1.00			
PHF Volume:	0	907	112				67	861	0				0	0	0			
Reduct Vol:	0	0	0				0	0	0				0	0	0			
FinalVolume:	0	907	112				67	861	0				0	0	0			
Critical Gap Module:																		
Critical Gp:	xxxxx	xxxx	xxxxx				4.2	xxxx	xxxxx				7.1	6.5	6.2			
FollowUpTim:	xxxxx	xxxx	xxxxx				2.3	xxxx	xxxxx				3.5	4.0	3.3			
Capacity Module:																		
Cnflict Vol:	xxxx	xxxx	xxxxx				1018	xxxx	xxxxx				2004	2013	861			
Potent Cap.:	xxxx	xxxx	xxxxx				651	xxxx	xxxxx				44	59	355			
Move Cap.:	xxxx	xxxx	xxxxx				651	xxxx	xxxxx				28	53	355			
Volume/Cap:	xxxx	xxxx	xxxx				0.10	xxxx	xxxx				0.00	0.00	0.00			
Level Of Service Module:																		
2Way95thQ:	xxxx	xxxx	xxxxx				0.3	xxxx	xxxxx				xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx				11.2	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*				B	*	*				*	*	*			
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx	0	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*				*	*	*				*	*	*			
ApproachDel:	xxxxxx						xxxxxx						xxxxxx					
ApproachLOS:	*						*						*					

Street Name:	Brentwood Blvd.									Delta Rd.								
Approach:	North Bound						South Bound						East Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign					
Rights:	Include						Include						Include					
Lanes:	0	0	0	1	0		1	0	0	1	0		0	0	1!	0	0	
Volume Module:																		
Base Vol:	0	738	104				63	611	0				0	0	0			
Growth Adj:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
Initial Bse:	0	738	104				63	611	0				0	0	0			
Added Vol:	0	106	0				0	199	0				0	0	0			
PasserByVol:	0	0	0				0	0	0				0	0	0			
Initial Fut:	0	844	104				63	810	0				0	0	0			
User Adj:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
PHF Adj:	0.93	0.93	0.93				0.94	0.94	0.94				1.00	1.00	1.00			
PHF Volume:	0	907	112				67	861	0				0	0	0			
Reduct Vol:	0	0	0				0	0	0				0	0	0			
FinalVolume:	0	907	112				67	861	0				0	0	0			
Critical Gap Module:																		
Critical Gp:	xxxxx	xxxx	xxxxx				4.2	xxxx	xxxxx				7.1	6.5	6.2			
FollowUpTim:	xxxxx	xxxx	xxxxx				2.3	xxxx	xxxxx				3.5	4.0	3.3			
Capacity Module:																		
Cnflict Vol:	xxxx	xxxx	xxxxx				1018	xxxx	xxxxx				2004	2013	861			
Potent Cap.:	xxxx	xxxx	xxxxx				651	xxxx	xxxxx				44	59	355			
Move Cap.:	xxxx	xxxx	xxxxx				651	xxxx	xxxxx				28	53	355			
Volume/Cap:	xxxx	xxxx	xxxx				0.10	xxxx	xxxx				0.00	0.00	0.00			
Level Of Service Module:																		
2Way95thQ:	xxxx	xxxx	xxxxx				0.3	xxxx	xxxxx				xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx				11.2	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*				B	*	*				*	*	*			
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx	0	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*				*	*	*				*	*	*			
ApproachDel:	xxxxxx						xxxxxx						xxxxxx					
ApproachLOS:	*						*						*					

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #2 Sellers Ave @ Delta

Cycle (sec):	100	Critical Vol./Cap.(X):	0.382
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	9.9
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Sellers Ave.						Delta Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	67	173	31	11	152	16	28	84	45	32	72	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	173	31	11	152	16	28	84	45	32	72	23
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	67	173	31	11	152	16	28	84	45	32	72	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	67	173	31	11	152	16	28	84	45	32	72	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	67	173	31	11	152	16	28	84	45	32	72	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	67	173	31	11	152	16	28	84	45	32	72	23
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.25	0.64	0.11	0.06	0.85	0.09	0.18	0.53	0.29	0.25	0.57	0.18
Final Sat.:	175	453	81	42	582	61	118	353	189	162	364	116
Capacity Analysis Module:												
Vol/Sat:	0.38	0.38	0.38	0.26	0.26	0.26	0.24	0.24	0.24	0.20	0.20	0.20
Crit Moves:		****			****			****			****	
Delay/Veh:	10.6	10.6	10.6	9.6	9.6	9.6	9.5	9.5	9.5	9.3	9.3	9.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.6	10.6	10.6	9.6	9.6	9.6	9.5	9.5	9.5	9.3	9.3	9.3
LOS by Move:	B	B	B	A	A	A	A	A	A	A	A	A
ApproachDel:	10.6			9.6			9.5			9.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.6			9.6			9.5			9.3		
LOS by Appr:	B			A			A			A		
AllWayAvgQ:	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Brentwood Blvd. @ E. Sims Road

Average Delay (sec/veh): 11.1 Worst Case Level Of Service: F[293.1]

Street Name:	Brentwood Blvd.						E. Sims Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 1	0	0 1	0 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	837	23	31	664	0	0	0	0	44	0	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	837	23	31	664	0	0	0	0	44	0	21
Added Vol:	0	106	14	0	199	0	0	0	0	9	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	943	37	31	863	0	0	0	0	53	0	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	1.00	1.00	1.00	0.90	0.90	0.90
PHF Volume:	0	1070	42	35	978	0	0	0	0	59	0	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1070	42	35	978	0	0	0	0	59	0	23
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1112	xxxx	xxxxx	xxxx	xxxx	xxxxx	2140	2140	1091
Potent Cap.:	xxxx	xxxx	xxxxx	599	xxxx	xxxxx	xxxx	xxxx	xxxxx	54	49	261
Move Cap.:	xxxx	xxxx	xxxxx	599	xxxx	xxxxx	xxxx	xxxx	xxxxx	51	46	261
Volume/Cap:	xxxx	xxxx	xxxx	0.06	xxxx	xxxx	xxxx	xxxx	xxxx	1.14	0.00	0.09
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	11.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	66	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	6.6	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	11.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	293	xxxxx
Shared LOS:	*	*	*	B	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			293.1		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #4 Brentwood Blvd @ Lone Tree Way (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.535
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	A

Street Name:	Brentwood Blvd						Lone Tree Way (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	1 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	137	534	22	15	485	124	169	8	58	17	5	6
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	137	534	22	15	485	124	169	8	58	17	5	6
Added Vol:	62	120	22	0	208	0	0	0	116	14	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	199	654	44	15	693	124	169	8	174	31	5	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	199	654	44	15	693	124	169	8	174	31	5	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	199	654	44	15	693	124	169	8	174	31	5	6
RTOR Reduct:	0	0	31	0	0	0	0	0	174	0	0	6
RTOR Vol:	199	654	13	15	693	124	169	8	0	31	5	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	199	654	13	15	693	124	169	8	0	31	5	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.70	0.30	0.95	0.05	1.00	0.86	0.14	1.00
Final Sat.:	1650	1650	1650	1650	2799	501	1575	75	1650	1421	229	1650
Capacity Analysis Module:												
Vol/Sat:	0.12	0.40	0.01	0.01	0.25	0.25	0.11	0.11	0.00	0.02	0.02	0.00
Crit Volume:		654			15			177			36	
Crit Moves:		****			****			****			****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Arroyo Seco Road @ Lone Tree Way

Average Delay (sec/veh): 2.3 Worst Case Level Of Service: A[8.9]

Street Name:	Arroyo Seco Road						Lone Tree Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1!	0	0	0 0 0	0	0	0 0 0	1	0	0 0 1	0	0
Volume Module:												
Base Vol:	29	0	1	0	0	0	0	3	47	0	2	0
Growth Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	29	0	1	0	0	0	0	3	47	0	2	0
Added Vol:	0	0	0	0	0	0	0	22	0	0	14	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	0	1	0	0	0	0	25	47	0	16	0
User Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	0	1	0	0	0	0	25	47	0	16	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	29	0	1	0	0	0	0	25	47	0	16	0
Critical Gap Module:												
Critical Gp:	6.4 6.5		6.2	xxxxx xxxx		xxxxx	xxxxx xxxx		xxxxx	xxxxx xxxx		xxxxx
FollowUpTim:	3.5 4.0		3.3	xxxxx xxxx		xxxxx	xxxxx xxxx		xxxxx	xxxxx xxxx		xxxxx
Capacity Module:												
Cnflict Vol:	65	65	49	xxxx xxxx		xxxxx	xxxx xxxx		xxxxx	xxxx xxxx		xxxxx
Potent Cap.:	941	826	1020	xxxx xxxx		xxxxx	xxxx xxxx		xxxxx	xxxx xxxx		xxxxx
Move Cap.:	941	826	1020	xxxx xxxx		xxxxx	xxxx xxxx		xxxxx	xxxx xxxx		xxxxx
Volume/Cap:	0.03 0.00		0.00	xxxx xxxx		xxxx	xxxx xxxx		xxxx	xxxx xxxx		xxxx
Level Of Service Module:												
2Way95thQ:	xxxx xxxx		xxxxx	xxxx xxxx		xxxxx	xxxx xxxx		xxxxx	xxxx xxxx		xxxxx
Control Del:	xxxxx xxxx		xxxxx	xxxxx xxxx		xxxxx	xxxxx xxxx		xxxxx	xxxxx xxxx		xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx 944		xxxxx	xxxx xxxx		xxxxx	xxxx xxxx		xxxxx	xxxx xxxx		xxxxx
SharedQueue:	xxxxx 0.1		xxxxx	xxxxx xxxx		xxxxx	xxxxx xxxx		xxxxx	xxxxx xxxx		xxxxx
Shrd ConDel:	xxxxx 8.9		xxxxx	xxxxx xxxx		xxxxx	xxxxx xxxx		xxxxx	xxxxx xxxx		xxxxx
Shared LOS:	* A		*	*	*	*	*	*	*	*	*	*
ApproachDel:	8.9			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	A			*			*			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #6 Brentwood Blvd. @ Sunrise Drive

Average Delay (sec/veh): 8.7 Worst Case Level Of Service: F[457.4]

Street Name:	Brentwood Blvd.						Sunrise Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 1	0	0	0 0 0	1	0	0 0 1!	0	0	0 0 0	0	0
Volume Module:												
Base Vol:	26 1012	0	0	814	19		10	0	9	0	0	0
Growth Adj:	1.00 1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26 1012	0	0	814	19		10	0	9	0	0	0
Added Vol:	12 199	0	0	334	4		5	0	12	0	0	0
PasserByVol:	0 0	0	0	0	0		0	0	0	0	0	0
Initial Fut:	38 1211	0	0	1148	23		15	0	21	0	0	0
User Adj:	1.00 1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85 0.85	0.85	0.87	0.87	0.87		0.68	0.68	0.68	1.00	1.00	1.00
PHF Volume:	45 1423	0	0	1318	26		22	0	31	0	0	0
Reduct Vol:	0 0	0	0	0	0		0	0	0	0	0	0
FinalVolume:	45 1423	0	0	1318	26		22	0	31	0	0	0
Critical Gap Module:												
Critical Gp:	4.2 xxxx xxxxx	xxxxx	xxxx	xxxxx			6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.3 xxxx xxxxx	xxxxx	xxxx	xxxxx			3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1344 xxxx xxxxx	xxxx	xxxx	xxxxx			2844	2844	1331	xxxx	xxxx	xxxxx
Potent Cap.:	487 xxxx xxxxx	xxxx	xxxx	xxxxx			19	17	189	xxxx	xxxx	xxxxx
Move Cap.:	487 xxxx xxxxx	xxxx	xxxx	xxxxx			18	16	189	xxxx	xxxx	xxxxx
Volume/Cap:	0.09 xxxx xxxx	xxxx	xxxx	xxxx			1.25	0.00	0.16	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.3 xxxx xxxxx	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	13.1 xxxx xxxxx	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	B *	*	*	*			*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx	38	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx	5.5	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx	457	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	* *	*	*	*	*		*	F	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			457.4			xxxxxx		
ApproachLOS:	*			*			F			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Brentwood Blvd. @ Gregory Lane

Average Delay (sec/veh): 17.8 Worst Case Level Of Service: F[703.9]

Street Name:	Brentwood Blvd.						Gregory Ln.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0	0 1	0	1 0	0 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	17	999	0	0	770	39	29	0	30	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	17	999	0	0	770	39	29	0	30	0	0	0
Added Vol:	11	211	0	0	346	1	1	0	7	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	1210	0	0	1116	40	30	0	37	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.81	0.81	0.81	0.92	0.92	0.92	1.00	1.00	1.00
PHF Volume:	32	1367	0	0	1374	49	33	0	40	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	32	1367	0	0	1374	49	33	0	40	0	0	0
Critical Gap Module:												
Critical Gp:	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	1424	xxxx	xxxxx	xxxx	xxxx	xxxxx	2830	2830	1399	2850	2854	1367
Potent Cap.:	454	xxxx	xxxxx	xxxx	xxxx	xxxxx	19	18	172	11	17	180
Move Cap.:	454	xxxx	xxxxx	xxxx	xxxx	xxxxx	18	16	172	8	16	180
Volume/Cap:	0.07	xxxx	xxxx	xxxx	xxxx	xxxx	1.77	0.00	0.23	0.00	0.00	0.00
Level Of Service Module:												
2Way95thQ:	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	13.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	B	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	36	xxxxx	xxxx	0	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.0	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	704	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			703.9			xxxxxx		
ApproachLOS:	*			*			F			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Brentwood Blvd. @ Hanson Lane

Average Delay (sec/veh): 18.4 Worst Case Level Of Service: F[711.1]

Street Name:	Brentwood Blvd.						Hanson Ln					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	878	12	27	794	0	0	0	0	25	0	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	878	12	27	794	0	0	0	0	25	0	21
Added Vol:	0	221	12	1	352	0	0	0	0	7	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1099	24	28	1146	0	0	0	0	32	0	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.87	0.87	0.87	1.00	1.00	1.00	0.77	0.77	0.77
PHF Volume:	0	1294	28	32	1323	0	0	0	0	42	0	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1294	28	32	1323	0	0	0	0	42	0	29
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1323	xxxx	xxxxx	xxxx	xxxx	xxxxx	2697	2697	1309
Potent Cap.:	xxxx	xxxx	xxxxx	497	xxxx	xxxxx	xxxx	xxxx	xxxxx	24	21	195
Move Cap.:	xxxx	xxxx	xxxxx	497	xxxx	xxxxx	xxxx	xxxx	xxxxx	22	20	195
Volume/Cap:	xxxx	xxxx	xxxx	0.07	xxxx	xxxx	xxxx	xxxx	xxxx	1.85	0.00	0.15
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	12.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	35	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	7.8	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	12.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	711	xxxxx
Shared LOS:	*	*	*	B	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			711.1		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Brentwood Blvd. @ Homecoming Way

Average Delay (sec/veh): 3.6 Worst Case Level Of Service: F[326.3]

Street Name:	Brentwood Blvd.						Homecoming Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	918	9	8	835	0	0	0	0	0	0	5
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	918	9	8	835	0	0	0	0	0	0	5
Added Vol:	0	233	11	1	359	0	0	0	0	7	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1151	20	9	1194	0	0	0	0	7	0	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.82	0.82	0.82	0.86	0.86	0.86	1.00	1.00	1.00	0.42	0.42	0.42
PHF Volume:	0	1400	24	11	1393	0	0	0	0	17	0	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1400	24	11	1393	0	0	0	0	17	0	14
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1425	xxxx	xxxxx	xxxx	xxxx	xxxxx	2827	2827	1412
Potent Cap.:	xxxx	xxxx	xxxxx	454	xxxx	xxxxx	xxxx	xxxx	xxxxx	20	18	169
Move Cap.:	xxxx	xxxx	xxxxx	454	xxxx	xxxxx	xxxx	xxxx	xxxxx	19	17	169
Volume/Cap:	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	0.88	0.00	0.09
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	13.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	32	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	3.3	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	326	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			326.3		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #10 Brentwood Blvd. @ Grant Street / Sunset Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.909
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Street Name:	Brentwood Blvd.						Grant Street / Sunset Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	0 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	30	786	81	71	732	19	26	75	34	120	60	127
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	786	81	71	732	19	26	75	34	120	60	127
Added Vol:	0	201	90	72	294	0	0	0	0	55	0	43
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	30	987	171	143	1026	19	26	75	34	175	60	170
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	30	987	171	143	1026	19	26	75	34	175	60	170
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	30	987	171	143	1026	19	26	75	34	175	60	170
RTOR Reduct:	0	0	171	0	0	0	0	0	0	0	0	143
RTOR Vol:	30	987	0	143	1026	19	26	75	34	175	60	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	30	987	0	143	1026	19	26	75	34	175	60	27
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.98	0.02	0.19	0.56	0.25	0.74	0.26	1.00
Final Sat.:	1650	1650	1650	1650	1620	30	318	917	416	1229	421	1650
Capacity Analysis Module:												
Vol/Sat:	0.02	0.60	0.00	0.09	0.63	0.63	0.08	0.08	0.08	0.14	0.14	0.02
Crit Volume:		987		143				135			235	
Crit Moves:		****		****				****			****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #11 Brentwood Blvd. @ Sunset Ct.

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: D[32.4]

Street Name:	Brentwood Blvd.						Sunset Ct.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 0 0 1		
Volume Module:												
Base Vol:	0	943	15	6	919	0	0	0	0	0	0	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	943	15	6	919	0	0	0	0	0	0	25
Added Vol:	0	291	0	0	349	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1234	15	6	1268	0	0	0	0	0	0	25
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.94	0.94	0.94	1.00	1.00	1.00	0.57	0.57	0.57
PHF Volume:	0	1380	17	6	1355	0	0	0	0	0	0	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1380	17	6	1355	0	0	0	0	0	0	44
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1397	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	1389
Potent Cap.:	xxxx	xxxx	xxxxx	465	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	175
Move Cap.:	xxxx	xxxx	xxxxx	465	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	175
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.25
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	1.0
Control Del:	xxxxx	xxxx	xxxxx	12.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	32.4
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	D
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			32.4		
ApproachLOS:	*			*			*			D		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #12 Brentwood Blvd. @ Havenwood Ave.

Average Delay (sec/veh): 27.1 Worst Case Level Of Service: F[1481.8]

Street Name:	Brentwood Blvd.									Havenwood Ave.								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	1	0	1	1	0	0	1	0	0	0	0	0	1	0	0	1!	0	0
Volume Module:																				
Base Vol:	5	953		23		14	999		2		0		0		3		16		0	11
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00		1.00		1.00	1.00
Initial Bse:	5	953		23		14	999		2		0		0		3		16		0	11
Added Vol:	0	291		17		1	278		0		0		0		0		11		0	1
PasserByVol:	0	0		0		0	0		0		0		0		0		0		0	0
Initial Fut:	5	1244		40		15	1277		2		0		0		3		27		0	12
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00		1.00		1.00	1.00
PHF Adj:	0.91	0.91		0.91		0.94	0.94		0.94		0.75		0.75		0.75		0.75		0.75	0.75
PHF Volume:	6	1375		44		16	1359		2		0		0		4		36		0	16
Reduct Vol:	0	0		0		0	0		0		0		0		0		0		0	0
FinalVolume:	6	1375		44		16	1359		2		0		0		4		36		0	16
Critical Gap Module:																				
Critical Gp:	4.2	xxxx	xxxxx		4.2	xxxx	xxxxx	xxxxx	xxxx		6.2		7.1		6.5		6.2			
FollowUpTim:	2.3	xxxx	xxxxx		2.3	xxxx	xxxxx	xxxxx	xxxx		3.3		3.5		4.0		3.3			
Capacity Module:																				
Cnflict Vol:	1361	xxxx	xxxxx		1419	xxxx	xxxxx		xxxx	xxxx	1360		2779		2778		1375			
Potent Cap.:	480	xxxx	xxxxx		456	xxxx	xxxxx		xxxx	xxxx	182		12		19		178			
Move Cap.:	480	xxxx	xxxxx		456	xxxx	xxxxx		xxxx	xxxx	182		12		18		178			
Volume/Cap:	0.01	xxxx	xxxx		0.03	xxxx	xxxx		xxxx	xxxx	0.02		3.13		0.00		0.09			
Level Of Service Module:																				
2Way95thQ:	0.0	xxxx	xxxxx		0.1	xxxx	xxxxx		xxxx	xxxx	0.1		xxxx		xxxx		xxxxx			
Control Del:	12.6	xxxx	xxxxx		13.2	xxxx	xxxxx	xxxxx	xxxx		25.3		xxxxx		xxxx		xxxxx			
LOS by Move:	B	*		*	B	*		*	*		D		*		*		*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx	xxxx	xxxx		xxxxx	xxxx	xxxx		xxxxx	xxxx		xxxxx	xxxx		16		xxxxx
SharedQueue:	xxxxx	xxxx		xxxxx	xxxxx	xxxx		xxxxx	xxxxx	xxxx		xxxxx	xxxxx		xxxxx	xxxxx		7.2		xxxxx
Shrd ConDel:	xxxxx	xxxx		xxxxx	xxxxx	xxxx		xxxxx	xxxxx	xxxx		xxxxx	xxxxx		xxxxx	xxxxx		1482		xxxxx
Shared LOS:	*	*		*	*	*		*	*	*		*	*		*	*		F		*
ApproachDel:	xxxxxx				xxxxxx					25.3						1481.8				
ApproachLOS:	*				*					D						F				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #13 Brentwood Blvd. @ Applewood Common

Cycle (sec):	100	Critical Vol./Cap.(X):	0.866	
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx	
Optimal Cycle:	170	Level Of Service:	D	

Street Name:	Brentwood Blvd.						Applewood Common					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	8	977	41	20	993	7	7	0	10	37	3	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	977	41	20	993	7	7	0	10	37	3	18
Added Vol:	12	370	17	1	279	9	6	0	7	11	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	1347	58	21	1272	16	13	0	17	48	3	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	20	1347	58	21	1272	16	13	0	17	48	3	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	1347	58	21	1272	16	13	0	17	48	3	19
RTOR Reduct:	0	0	48	0	0	0	0	0	0	0	0	0
RTOR Vol:	20	1347	10	21	1272	16	13	0	17	48	3	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	1347	10	21	1272	16	13	0	17	48	3	19
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.99	0.01	1.00	0.00	1.00	1.00	0.14	0.86
Final Sat.:	1650	1650	1650	1650	1630	20	1650	0	1650	1650	225	1425
Capacity Analysis Module:												
Vol/Sat:	0.01	0.82	0.01	0.01	0.78	0.78	0.01	0.00	0.01	0.03	0.01	0.01
Crit Volume:		1347			21			13			48	
Crit Moves:		****			****			****			****	

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #14 Brentwood Blvd. @ Sand Creek Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.560
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	A

Street Name:	Brentwood Blvd.						Sand Creek Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	0	0	0
Lanes:	1 0	2 0	0	1 0	1 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	145	565	0	0	592	125	183	0	158	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	145	565	0	0	592	125	183	0	158	0	0	0
Added Vol:	42	312	0	0	263	33	87	0	73	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	187	877	0	0	855	158	270	0	231	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	187	877	0	0	855	158	270	0	231	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	187	877	0	0	855	158	270	0	231	0	0	0
RTOR Reduct:	0	0	0	0	0	0	0	0	187	0	0	0
RTOR Vol:	187	877	0	0	855	158	270	0	44	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	187	877	0	0	855	158	270	0	44	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	1.00	1.69	0.31	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1720	3440	0	1720	2903	537	1720	0	1720	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.11	0.25	0.00	0.00	0.29	0.29	0.16	0.00	0.03	0.00	0.00	0.00
Crit Volume:	187				507		270				0	
Crit Moves:	****				****		****					

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #15 Brentwood Blvd. @ Technology Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.330	
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx	
Optimal Cycle:	28	Level Of Service:	A	

Street Name:	Brentwood Blvd.						Technology Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	6	6	0	6	6	4	4	4	0	0	0
Lanes:	1 0 2	0 0		0 0 1	1 0		1 0 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	26	719	0	0	678	11	5	0	23	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	719	0	0	678	11	5	0	23	0	0	0
Added Vol:	9	338	0	0	328	8	15	0	17	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	35	1057	0	0	1006	19	20	0	40	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	35	1057	0	0	1006	19	20	0	40	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	1057	0	0	1006	19	20	0	40	0	0	0
RTOR Reduct:	0	0	0	0	0	0	0	0	35	0	0	0
RTOR Vol:	35	1057	0	0	1006	19	20	0	5	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	35	1057	0	0	1006	19	20	0	5	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.96	0.04	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1720	3440	0	0	3376	64	1720	0	1720	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.31	0.00	0.00	0.30	0.30	0.01	0.00	0.00	0.00	0.00	0.00
Crit Volume:	35					513	20				0	
Crit Moves:	****					****	****					

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #16 Brentwood Blvd @ Nancy Street (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.401
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	31	Level Of Service:	A

Street Name:	Brentwood Blvd						Nancy Street (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	7	7	4	7	7	0	0	0	4	4	4
Lanes:	0 0	1 1	0	1 0	2 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	691	31	64	696	0	0	0	0	52	0	54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	691	31	64	696	0	0	0	0	52	0	54
Added Vol:	0	346	27	10	335	0	0	0	0	17	0	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1037	58	74	1031	0	0	0	0	69	0	60
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1037	58	74	1031	0	0	0	0	69	0	60
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1037	58	74	1031	0	0	0	0	69	0	60
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	60
RTOR Vol:	0	1037	58	74	1031	0	0	0	0	69	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1037	58	74	1031	0	0	0	0	69	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.89	0.11	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3258	182	1720	3440	0	0	0	0	1720	0	1720
Capacity Analysis Module:												
Vol/Sat:	0.00	0.32	0.32	0.04	0.30	0.00	0.00	0.00	0.00	0.04	0.00	0.00
Crit Volume:		548			74			0			69	
Crit Moves:		****			****						****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #17 Brentwood Blvd. @ Village Drive

Average Delay (sec/veh): 5.5 Worst Case Level Of Service: F[218.8]

Street Name:	Brentwood Blvd.						Village Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	708	46	18	702	0	0	0	0	19	0	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	708	46	18	702	0	0	0	0	19	0	17
Added Vol:	0	372	0	0	352	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1080	46	18	1054	0	0	0	0	19	0	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.91	0.91	0.91	1.00	1.00	1.00	0.60	0.60	0.60
PHF Volume:	0	1158	49	20	1153	0	0	0	0	32	0	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1158	49	20	1153	0	0	0	0	32	0	28
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1207	xxxx	xxxxx	xxxx	xxxx	xxxxx	2375	2375	1182
Potent Cap.:	xxxx	xxxx	xxxxx	551	xxxx	xxxxx	xxxx	xxxx	xxxxx	38	35	231
Move Cap.:	xxxx	xxxx	xxxxx	551	xxxx	xxxxx	xxxx	xxxx	xxxxx	37	33	231
Volume/Cap:	xxxx	xxxx	xxxx	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	0.85	0.00	0.12
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	11.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	61	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	4.7	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	219	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			218.8		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #18 Brentwood Blvd. @ Central Blvd / Sycamore Ave (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.702
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	C

Street Name:	Brentwood Blvd.						Central Blvd / Sycamore Ave (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	15	15	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	1	1 0	1 0	1	1 0	1 0	1	1
Volume Module:												
Base Vol:	43	550	41	72	515	70	109	68	38	23	64	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	43	550	41	72	515	70	109	68	38	23	64	71
Added Vol:	7	254	40	54	191	107	86	33	4	24	19	32
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	50	804	81	126	706	177	195	101	42	47	83	103
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	50	804	81	126	706	177	195	101	42	47	83	103
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	804	81	126	706	177	195	101	42	47	83	103
RTOR Reduct:	0	0	47	0	0	0	0	0	0	0	0	103
RTOR Vol:	50	804	34	126	706	177	195	101	42	47	83	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	50	804	34	126	706	177	195	101	42	47	83	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.60	0.40	1.00	1.41	0.59	1.00	1.00	1.00
Final Sat.:	1720	1720	1720	1720	2750	690	1720	2430	1010	1720	1720	1720
Capacity Analysis Module:												
Vol/Sat:	0.03	0.47	0.02	0.07	0.26	0.26	0.11	0.04	0.04	0.03	0.05	0.00
Crit Volume:		804			126			195			83	
Crit Moves:		****			****			****			****	

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #20 Central Street @ Second Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.272
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Second Street						Central Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ignore		
Min. Green:	5	5	5	5	5	5	5	7	7	5	7	7
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	71	279	71	56	219	1	11	129	49	47	171	72
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	71	279	71	56	219	1	11	129	49	47	171	72
Added Vol:	57	0	0	0	0	0	0	123	39	0	134	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	128	279	71	56	219	1	11	252	88	47	305	72
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	128	279	71	56	219	1	11	252	88	47	305	72
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	128	279	71	56	219	1	11	252	88	47	305	72
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	128	279	71	56	219	1	11	252	88	47	305	72
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	128	279	71	56	219	1	11	252	88	47	305	72
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.59	0.41	1.00	1.99	0.01	1.00	1.48	0.52	1.00	2.00	1.00
Final Sat.:	1650	2631	669	1650	3285	15	1650	2446	854	1650	3300	1650
Capacity Analysis Module:												
Vol/Sat:	0.08	0.11	0.11	0.03	0.07	0.07	0.01	0.10	0.10	0.03	0.09	0.04
Crit Volume:			175	56				170		47		
Crit Moves:			****	****				****		****		

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #21 Central Blvd @ Walnut Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.280
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Street Name:	Walnut Blvd						Central Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	5	7	7	5	7	7	5	7	7	5	7	7
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	48	0	202	7	5	2	2	232	15	136	308	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	48	0	202	7	5	2	2	232	15	136	308	1
Added Vol:	4	0	33	0	0	0	0	186	6	21	104	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	52	0	235	7	5	2	2	418	21	157	412	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	52	0	235	7	5	2	2	418	21	157	412	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	0	235	7	5	2	2	418	21	157	412	1
RTOR Reduct:	0	0	157	0	0	0	0	0	0	0	0	0
RTOR Vol:	52	0	78	7	5	2	2	418	21	157	412	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	52	0	78	7	5	2	2	418	21	157	412	1
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.71	0.29	1.00	1.90	0.10	1.00	1.99	0.01
Final Sat.:	1650	1650	1650	1650	1179	471	1650	3142	158	1650	3292	8
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.05	0.00	0.00	0.00	0.00	0.13	0.13	0.10	0.13	0.13
Crit Volume:			78	7				220		157		
Crit Moves:			****	****				****		****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #22 Brentwood Blvd @ Pine Street

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: C[20.6]

Street Name:	Brentwood Blvd						Pine Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1	1	0	0 1	1	0 0	0 0	0	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	0	598	16	16	610	0	0	0	0	8	0	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	598	16	16	610	0	0	0	0	8	0	22
Added Vol:	0	287	8	0	212	0	0	0	0	5	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	885	24	16	822	0	0	0	0	13	0	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	885	24	16	822	0	0	0	0	13	0	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	885	24	16	822	0	0	0	0	13	0	22
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	909	xxxx	xxxxx	xxxx	xxxx	xxxxx	1340	1751	455
Potent Cap.:	xxxx	xxxx	xxxxx	697	xxxx	xxxxx	xxxx	xxxx	xxxxx	144	85	553
Move Cap.:	xxxx	xxxx	xxxxx	697	xxxx	xxxxx	xxxx	xxxx	xxxxx	141	83	553
Volume/Cap:	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	0.09	0.00	0.04
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	10.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	266	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	10.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	20.6	xxxxx
Shared LOS:	*	*	*	B	*	*	*	*	*	*	C	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			20.6		
ApproachLOS:	*			*			*			C		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #23 Brentwood Blvd @ Maple Street

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[11.9]

Street Name:	Brentwood Blvd						Maple Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1 0	1	0	0 1 0	1	0	0 0 0	0	0	0 0 0	0	1
Volume Module:												
Base Vol:	0	587	12	16	603	0	0	0	0	0	0	17
Growth Adj:	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00
Initial Bse:	0	587	12	16	603	0	0	0	0	0	0	17
Added Vol:	0	266	3	11	206	0	0	0	0	0	0	28
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	853	15	27	809	0	0	0	0	0	0	45
User Adj:	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00
PHF Adj:	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00
PHF Volume:	0	853	15	27	809	0	0	0	0	0	0	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	853	15	27	809	0	0	0	0	0	0	45
Critical Gap Module:												
Critical Gp:	xxxxx xxxx xxxxx			4.3	xxxx	xxxxx	xxxxx xxxx xxxxx			xxxxx xxxx		6.9
FollowUpTim:	xxxxx xxxx xxxxx			2.3	xxxx	xxxxx	xxxxx xxxx xxxxx			xxxxx xxxx		3.3
Capacity Module:												
Cnflict Vol:	xxxx xxxx xxxxx			868	xxxx	xxxxx	xxxx xxxx xxxxx			xxxx xxxx		434
Potent Cap.:	xxxx xxxx xxxxx			723	xxxx	xxxxx	xxxx xxxx xxxxx			xxxx xxxx		570
Move Cap.:	xxxx xxxx xxxxx			723	xxxx	xxxxx	xxxx xxxx xxxxx			xxxx xxxx		570
Volume/Cap:	xxxx xxxx		xxxx	0.04	xxxx	xxxx	xxxx xxxx		xxxx	xxxx xxxx		0.08
Level Of Service Module:												
2Way95thQ:	xxxx xxxx xxxxx			0.1	xxxx	xxxxx	xxxx xxxx xxxxx			xxxx xxxx		0.3
Control Del:	xxxxx xxxx xxxxx			10.2	xxxx	xxxxx	xxxxx xxxx xxxxx			xxxxx xxxx		11.9
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	B
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx xxxxx		
SharedQueue:	0.0 xxxx xxxxx			0.1 xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx xxxx xxxxx		
Shrd ConDel:	9.0 xxxx xxxxx			10.2 xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx xxxx xxxxx		
Shared LOS:	A	*	*	B	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			11.9		
ApproachLOS:	*			*			*			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #24 Brentwood Blvd @ Oak Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.532
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	A

Street Name:	Brentwood Blvd.						Oak St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 1	0 1	0	1 0	1 0	1
Volume Module:												
Base Vol:	80	375	66	30	433	158	243	183	45	63	174	26
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	80	375	66	30	433	158	243	183	45	63	174	26
Added Vol:	23	236	23	0	181	25	33	10	20	19	7	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	103	611	89	30	614	183	276	193	65	82	181	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	103	611	89	30	614	183	276	193	65	82	181	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	611	89	30	614	183	276	193	65	82	181	26
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	26
RTOR Vol:	103	611	89	30	614	183	276	193	65	82	181	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	103	611	89	30	614	183	276	193	65	82	181	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.75	0.25	1.00	1.54	0.46	1.56	1.08	0.36	1.00	1.00	1.00
Final Sat.:	1650	2880	420	1650	2542	758	2331	1786	600	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.06	0.21	0.21	0.02	0.24	0.24	0.12	0.11	0.11	0.05	0.11	0.00
Crit Volume:	103				399		178				181	
Crit Moves:	****				****		****				****	

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #25 Walnut Blvd @ Oak St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.460
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	A

Street Name:	Walnut Blvd						Oak St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	5	7	7	0	7	7	5	5	5	5	5	5
Lanes:	1 0	1 0	1	1 0	0 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	12	272	317	132	148	10	4	6	6	264	9	165
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	272	317	132	148	10	4	6	6	264	9	165
Added Vol:	0	14	43	20	8	0	0	0	0	32	0	23
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	286	360	152	156	10	4	6	6	296	9	188
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	12	286	360	152	156	10	4	6	6	296	9	188
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	286	360	152	156	10	4	6	6	296	9	188
RTOR Reduct:	0	0	296	0	0	0	0	0	0	0	0	152
RTOR Vol:	12	286	64	152	156	10	4	6	6	296	9	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	12	286	64	152	156	10	4	6	6	296	9	36
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.94	0.06	0.25	0.37	0.38	0.97	0.03	1.00
Final Sat.:	1650	1650	1650	1650	1551	99	413	619	619	1601	49	1650
Capacity Analysis Module:												
Vol/Sat:	0.01	0.17	0.04	0.09	0.10	0.10	0.01	0.01	0.01	0.18	0.18	0.02
Crit Volume:		286		152				16			305	
Crit Moves:		****		****				****			****	

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #26 Brentwood Blvd. @ Second St.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.457
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 34 Level Of Service: A

Street Name:	Brentwood Blvd.						Second St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	107	509	2	191	534	38	51	226	72	22	203	134
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	107	509	2	191	534	38	51	226	72	22	203	134
Added Vol:	30	257	0	22	193	3	2	18	19	0	24	27
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	137	766	2	213	727	41	53	244	91	22	227	161
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	137	766	2	213	727	41	53	244	91	22	227	161
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	137	766	2	213	727	41	53	244	91	22	227	161
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	161
RTOR Vol:	137	766	2	213	727	41	53	244	91	22	227	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	137	766	2	213	727	41	53	244	91	22	227	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	1.89	0.11	1.00	1.46	0.54	1.00	2.00	1.00
Final Sat.:	1720	3431	9	1720	3256	184	1720	2506	934	1720	3440	1720
Capacity Analysis Module:												
Vol/Sat:	0.08	0.22	0.22	0.12	0.22	0.22	0.03	0.10	0.10	0.01	0.07	0.00
Crit Volume:			384	213					168	22		
Crit Moves:			****	****					****	****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #27 Brentwood Blvd. @ Chestnut St.

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: E[40.9]

Street Name:	Brentwood Blvd.						Chestnut St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	489	21	26	531	0	0	0	0	22	0	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	489	21	26	531	0	0	0	0	22	0	19
Added Vol:	0	282	18	0	219	0	0	0	0	13	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	771	39	26	750	0	0	0	0	35	0	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	771	39	26	750	0	0	0	0	35	0	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	771	39	26	750	0	0	0	0	35	0	19
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	810	xxxx	xxxxx	xxxx	xxxx	xxxxx	1593	1593	791
Potent Cap.:	xxxx	xxxx	xxxxx	782	xxxx	xxxxx	xxxx	xxxx	xxxxx	118	107	390
Move Cap.:	xxxx	xxxx	xxxxx	782	xxxx	xxxxx	xxxx	xxxx	xxxxx	115	104	390
Volume/Cap:	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.30	0.00	0.05
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	9.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	153	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.5	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	9.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	40.9	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	E	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			40.9		
ApproachLOS:	*			*			*			E		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #28 Brentwood Blvd. @ Balfour Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.793
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	110	Level Of Service:	C

Street Name:	Brentwood Blvd.						Balfour Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	8	10	10	6	10	10	5	5	5	4	5	5
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	1 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	454	349	48	63	346	193	243	517	448	64	358	80
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	454	349	48	63	346	193	243	517	448	64	358	80
Added Vol:	21	94	3	71	78	35	32	39	36	2	28	64
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	475	443	51	134	424	228	275	556	484	66	386	144
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	475	443	51	134	424	228	275	556	484	66	386	144
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	475	443	51	134	424	228	275	556	484	66	386	144
RTOR Reduct:	0	0	0	0	0	228	0	0	475	0	0	0
RTOR Vol:	475	443	51	134	424	0	275	556	9	66	386	144
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	475	443	51	134	424	0	275	556	9	66	386	144
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.46	0.54
Final Sat.:	1650	3300	1650	1650	3300	1650	1650	1650	1650	1650	2403	897
Capacity Analysis Module:												
Vol/Sat:	0.29	0.13	0.03	0.08	0.13	0.00	0.17	0.34	0.01	0.04	0.16	0.16
Crit Volume:	475				212			556		66		
Crit Moves:	****				****			****		****		

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #29 Sellers Ave. @ Sunet Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.514
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.6
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Sellers Ave.						Sunset Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	81	236	14	21	175	39	50	91	62	7	77	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	81	236	14	21	175	39	50	91	62	7	77	30
Added Vol:	13	0	0	0	0	0	0	0	7	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	94	236	14	21	175	39	50	91	69	7	77	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	94	236	14	21	175	39	50	91	69	7	77	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	94	236	14	21	175	39	50	91	69	7	77	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	94	236	14	21	175	39	50	91	69	7	77	30
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.27	0.69	0.04	0.09	0.74	0.17	0.24	0.43	0.33	0.06	0.68	0.26
Final Sat.:	183	459	27	58	485	108	146	266	202	35	389	152
Capacity Analysis Module:												
Vol/Sat:	0.51	0.51	0.51	0.36	0.36	0.36	0.34	0.34	0.34	0.20	0.20	0.20
Crit Moves:	****					****		****			****	
Delay/Veh:	13.1	13.1	13.1	10.9	10.9	10.9	10.9	10.9	10.9	9.8	9.8	9.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.1	13.1	13.1	10.9	10.9	10.9	10.9	10.9	10.9	9.8	9.8	9.8
LOS by Move:	B	B	B	B	B	B	B	B	B	A	A	A
ApproachDel:	13.1			10.9			10.9			9.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	13.1			10.9			10.9			9.8		
LOS by Appr:	B			B			B			A		
AllWayAvgQ:	0.9	0.9	0.9	0.5	0.5	0.5	0.4	0.4	0.4	0.2	0.2	0.2

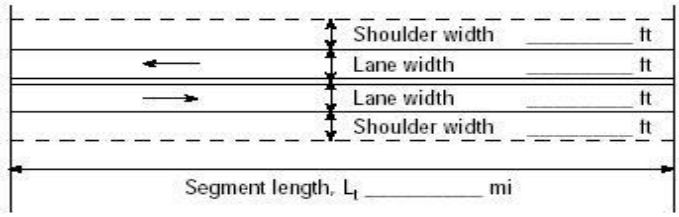
Note: Queue reported is the number of cars per lane.

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Brentwood Blvd.*
Agency or Company		From/To	*E Sims Rd. and Delta Rd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing+AP*

Project Description:

Input Data



☑ Class I highway ☐ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*1423* veh/h
Directional split	*57 / 43*
Peak-hour factor, PHF	*0.92*
No-passing zone	*100*
% Trucks and Buses , P_T	*10* %
% Recreational vehicles, P_R	*0*%
Access points/ *mi*	*20*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1562*
v_p * highest directional split proportion[2] (pc/h)	*890*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*40 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*40.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.5*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*26.3*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1547*
v_p * highest directional split proportion[2] (pc/h)	*882*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*74.3*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*7.1*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*81.5*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*E*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.49*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*116*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*427*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*4.4*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

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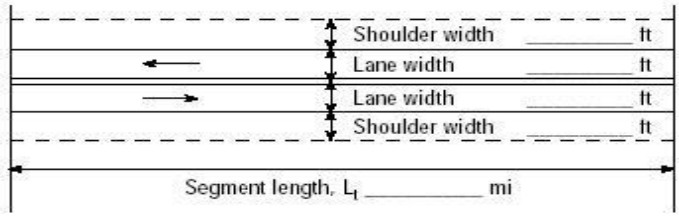
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Brentwood Blvd.*
Agency or Company		From/To	*E Sims Rd. and Delta Rd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing+AP*

Project Description:

Input Data



☑ Class I highway ☐ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*1860* veh/h
Directional split	*52 / 48*
Peak-hour factor, PHF	*0.96*
No-passing zone	*100*
% Trucks and Buses , P_T	*10* %
% Recreational vehicles, P_R	*0*%
Access points/ *mi*	*20*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1957*
v_p * highest directional split proportion[2] (pc/h)	*1018*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*40 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*40.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.1*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*23.7*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1938*
v_p * highest directional split proportion[2] (pc/h)	*1008*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*81.8*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*4.7*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*86.5*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*E*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.61*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*145*

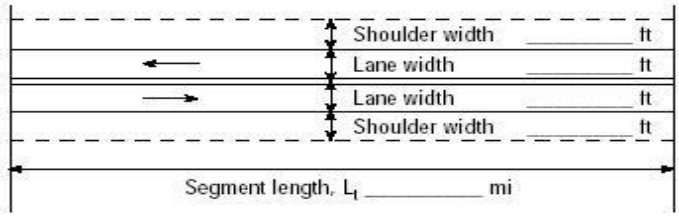
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*558*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*6.1*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Brentwood Blvd.*
Agency or Company		From/To	*Grant St. to Sunset Ct.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing+AP*

Project Description:

Input Data



☑ Class I highway ☐ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*1927* veh/h
Directional split	*52 / 48*
Peak-hour factor, PHF	*0.97*
No-passing zone	*100*
% Trucks and Buses , P_T	*10* %
% Recreational vehicles, P_R	*0*%
Access points/ *mi*	*10*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*2006*
v_p * highest directional split proportion[2] (pc/h)	*1043*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.1*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*13.3*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1987*
v_p * highest directional split proportion[2] (pc/h)	*1033*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*82.6*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*4.5*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*87.0*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*E*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.63*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*50*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*193*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*3.7*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

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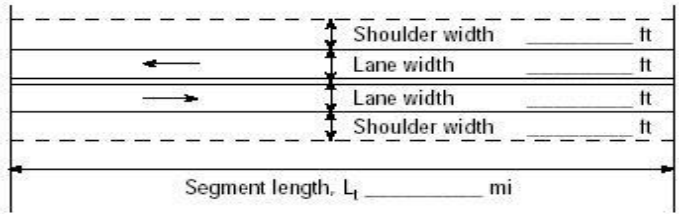
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Brentwood Blvd.*
Agency or Company		From/To	*Grant St. to Sunset Ct.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing+AP*

Project Description:

Input Data



☑ Class I highway ☐ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*2503* veh/h
Directional split	*51 / 49*
Peak-hour factor, PHF	*0.90*
No-passing zone	*100*
% Trucks and Buses , P_T	*10* %
% Recreational vehicles, P_R	*0*%
Access points/ *mi*	*10*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*2809*
v_p * highest directional split proportion[2] (pc/h)	*1433*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.9*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*7.3*

Percent Time-Spent-Following

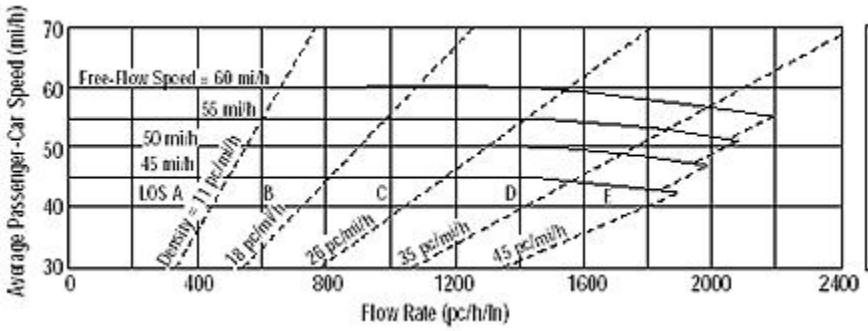
Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*2781*
v_p * highest directional split proportion[2] (pc/h)	*1418*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*91.3*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*2.1*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*93.4*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*E*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.88*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*70*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*250*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*9.6*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Central Blvd. to Spruce S
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	672	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

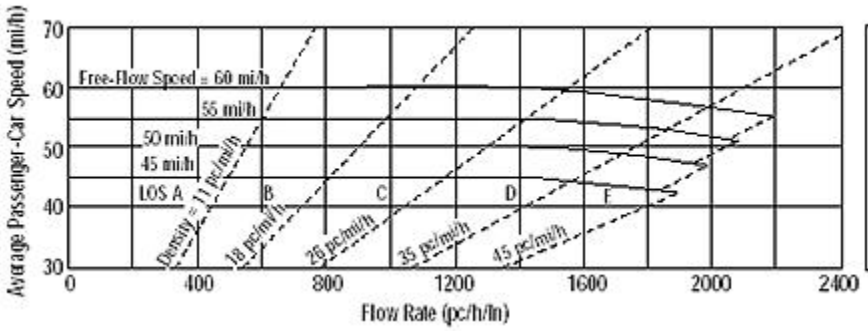
Flow Rate, v_p (pc/h/ln)	392
Speed, S (mi/h)	45.0
D (pc/mi/ln)	8.7
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Central Blvd. to Spruce S
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	789	Peak-Hour Factor, PHF	0.95
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

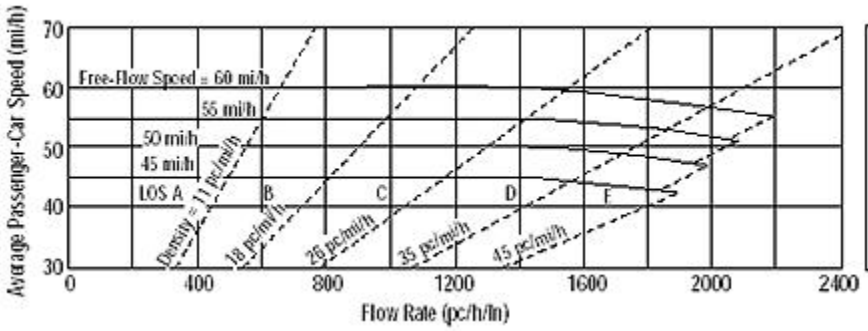
Flow Rate, v_p (pc/h/ln)	436
Speed, S (mi/h)	45.0
D (pc/mi/ln)	9.7
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Central Blvd. to Spruce S
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	935	Peak-Hour Factor, PHF	0.78
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

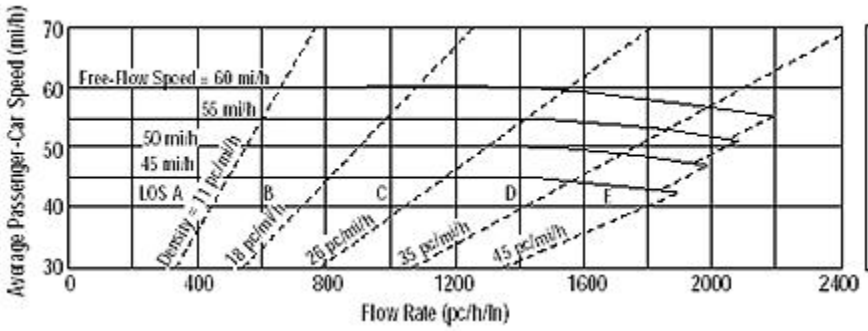
Flow Rate, v_p (pc/h/ln)	629
Speed, S (mi/h)	45.0
D (pc/mi/ln)	14.0
LOS	B

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Central Blvd. to Spruce S
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	995	Peak-Hour Factor, PHF	0.99
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

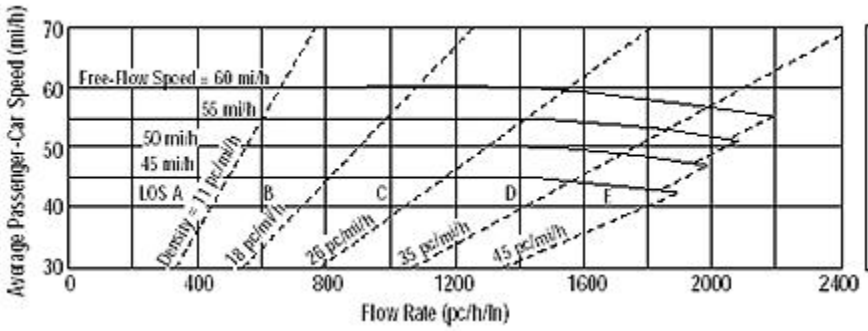
Flow Rate, v_p (pc/h/ln)	527
Speed, S (mi/h)	45.0
D (pc/mi/ln)	11.7
LOS	B

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Pine Ave. to Oak Ave.
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	647	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

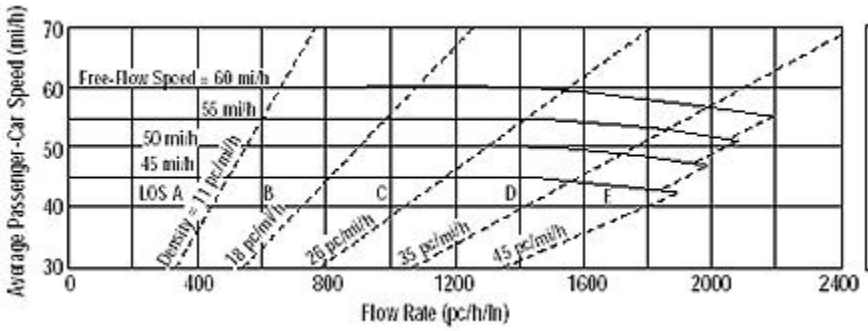
Flow Rate, v_p (pc/h/ln)	377
Speed, S (mi/h)	45.0
D (pc/mi/ln)	8.4
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Pine Ave. to Oak Ave.
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	636	Peak-Hour Factor, PHF	0.88
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

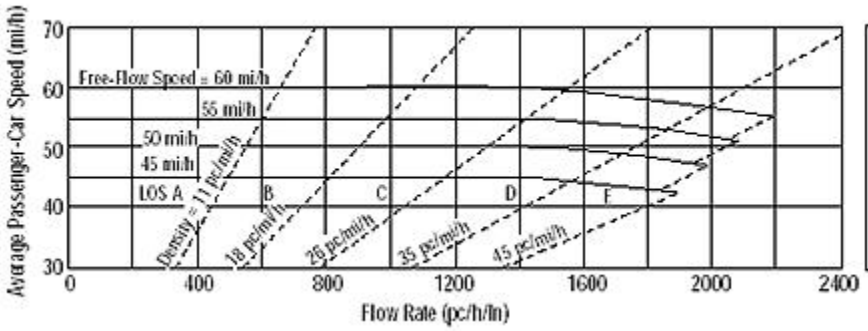
Flow Rate, v_p (pc/h/ln)	379
Speed, S (mi/h)	45.0
D (pc/mi/ln)	8.4
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Pine Ave. to Oak Ave.
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	904	Peak-Hour Factor, PHF	0.97
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

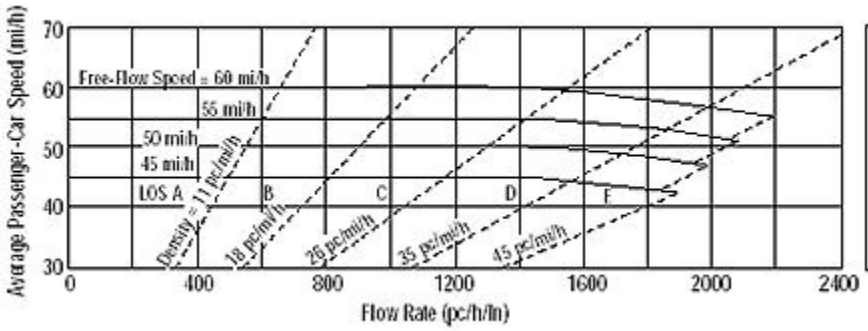
Flow Rate, v_p (pc/h/ln)	489
Speed, S (mi/h)	45.0
D (pc/mi/ln)	10.9
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Pine Ave. to Oak Ave.
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	841	Peak-Hour Factor, PHF	0.97
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	455
Speed, S (mi/h)	45.0
D (pc/mi/ln)	10.1
LOS	A

Design

Design (N)

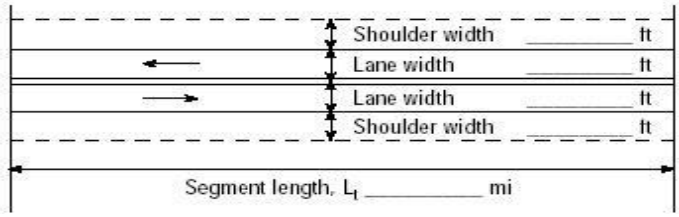
Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Delta Rd.*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing+AP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*362* veh/h
Directional split	*58 / 42*
Peak-hour factor, PHF	*0.76*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*40*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*483*
v_p * highest directional split proportion[2] (pc/h)	*280*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*50 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*50.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*46.3*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*477*
v_p * highest directional split proportion[2] (pc/h)	*277*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*34.2*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.2*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*34.5*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.15*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*119*

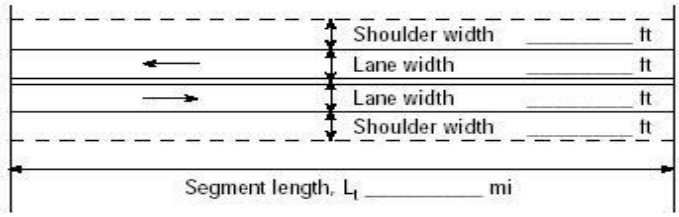
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*362*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*2.6*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Delta Rd.*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing+AP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*318* veh/h
Directional split	*51 / 49*
Peak-hour factor, PHF	*0.91*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*40*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*354*
v_p * highest directional split proportion[2] (pc/h)	*181*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*50 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*50.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*47.3*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*350*
v_p * highest directional split proportion[2] (pc/h)	*179*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*26.5*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.1*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*26.6*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.11*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*87*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*318*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*1.8*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

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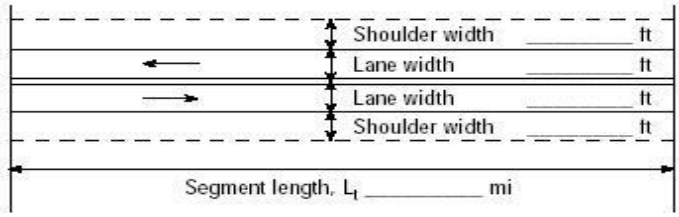
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Lone Tree Wy.*
Agency or Company		From/To	*West of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing+AP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*789* veh/h
Directional split	*64 / 36*
Peak-hour factor, PHF	*0.92*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*30*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*861*
v_p * highest directional split proportion[2] (pc/h)	*551*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*35 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*35.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*2.9*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*25.4*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*859*
v_p * highest directional split proportion[2] (pc/h)	*550*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*53.0*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*13.9*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*66.9*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.27*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*214*

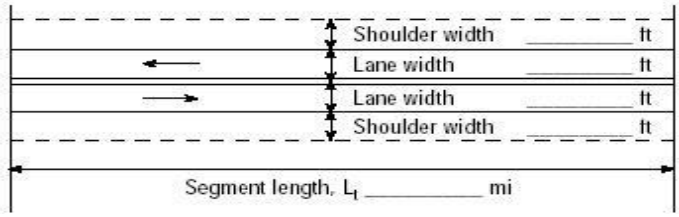
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*789*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*8.4*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Lone Tree Wy.*
Agency or Company		From/To	*West of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing+AP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*702* veh/h
Directional split	*50 / 50*
Peak-hour factor, PHF	*0.92*
No-passing zone	*100*
% Trucks and Buses , P_T	*2 %*
% Recreational vehicles, P_R	*4%*
Access points/ *mi*	*30*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*766*
v_p * highest directional split proportion[2] (pc/h)	*383*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*35 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*35.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*3.2*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*25.9*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*765*
v_p * highest directional split proportion[2] (pc/h)	*383*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*49.0*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*16.3*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*65.2*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.24*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*191*

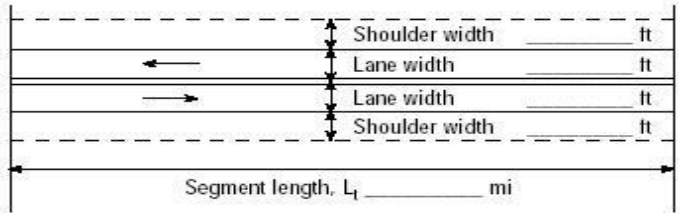
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*702*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*7.4*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Sunset Ave*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing+AP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*705* veh/h
Directional split	*66 / 34*
Peak-hour factor, PHF	*0.88*
No-passing zone	*100*
% Trucks and Buses , P_T	*2 %*
% Recreational vehicles, P_R	*4%*
Access points/ *mi*	*20*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*804*
v_p * highest directional split proportion[2] (pc/h)	*531*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*3.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*20.8*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*803*
v_p * highest directional split proportion[2] (pc/h)	*530*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*50.6*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*14.5*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*65.1*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.25*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*200*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*705*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*9.6*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

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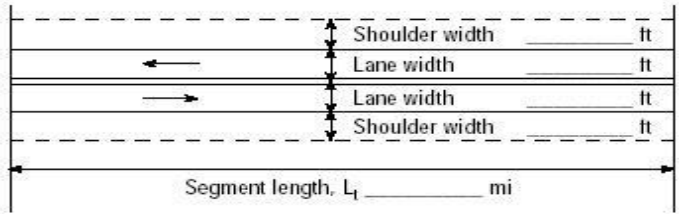
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Sunset Ave*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing+AP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*794* veh/h
Directional split	*51 / 49*
Peak-hour factor, PHF	*0.88*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*20*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*906*
v_p * highest directional split proportion[2] (pc/h)	*462*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*2.8*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*20.2*

Percent Time-Spent-Following

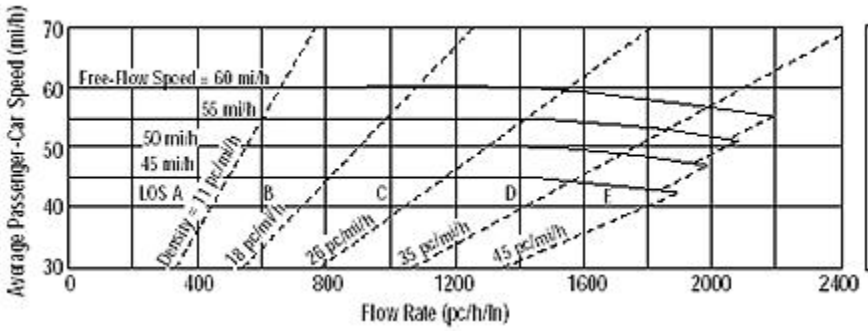
Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*904*
v_p * highest directional split proportion[2] (pc/h)	*461*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*54.8*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*14.0*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*68.8*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.28*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*226*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*794*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*11.2*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Central Blvd.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	240	Peak-Hour Factor, PHF	0.86
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

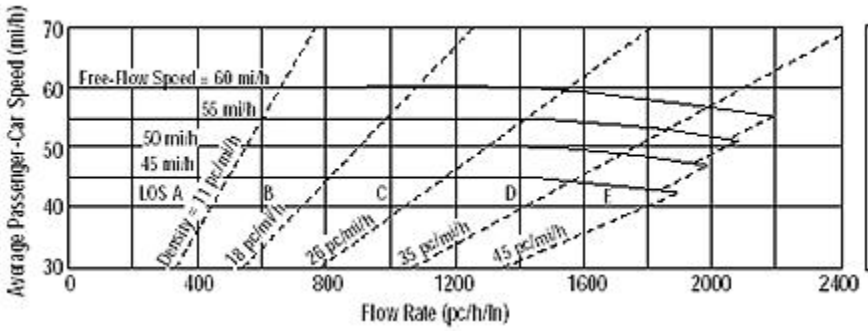
Flow Rate, v_p (pc/h/ln)	140
Speed, S (mi/h)	45.0
D (pc/mi/ln)	3.1
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Central Blvd.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	363	Peak-Hour Factor, PHF	0.88
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

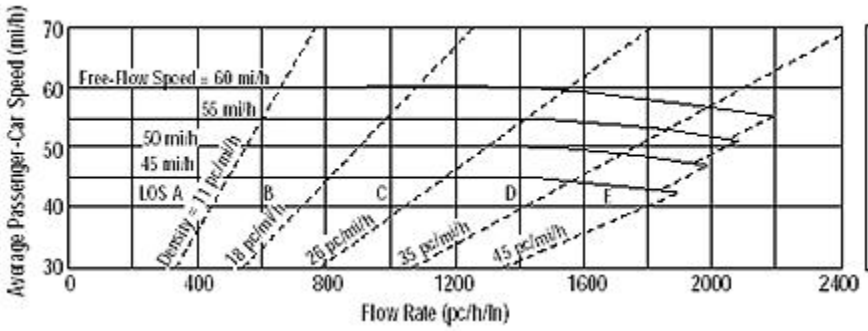
Flow Rate, v_p (pc/h/ln)	208
Speed, S (mi/h)	45.0
D (pc/mi/ln)	4.6
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Central Blvd.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	338	Peak-Hour Factor, PHF	0.84
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

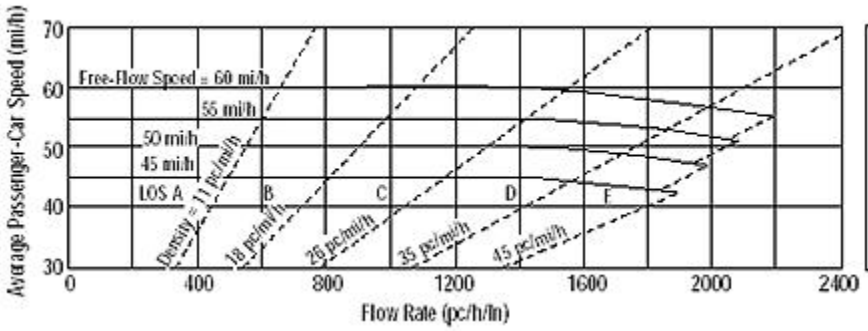
Flow Rate, v_p (pc/h/ln)	203
Speed, S (mi/h)	45.0
D (pc/mi/ln)	4.5
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Central Blvd.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	437	Peak-Hour Factor, PHF	0.76
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	290
Speed, S (mi/h)	45.0
D (pc/mi/ln)	6.4
LOS	A

Design

Design (N)

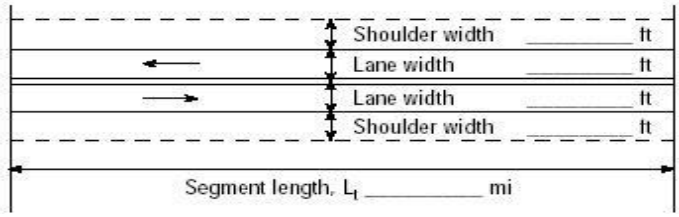
Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Grant St.*
Agency or Company		From/To	*West of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing+AP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*301* veh/h
Directional split	*55 / 45*
Peak-hour factor, PHF	*0.71*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*7*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*430*
v_p * highest directional split proportion[2] (pc/h)	*237*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*4.4*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*22.3*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*425*
v_p * highest directional split proportion[2] (pc/h)	*234*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*31.2*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*23.1*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*54.3*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.13*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*106*

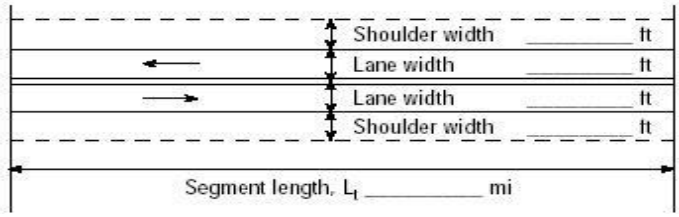
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*301*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*4.8*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Grant St.*
Agency or Company		From/To	*West of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing+AP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*244* veh/h
Directional split	*55 / 45*
Peak-hour factor, PHF	*0.87*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*7*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*284*
v_p * highest directional split proportion[2] (pc/h)	*156*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*3.9*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*23.9*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*281*
v_p * highest directional split proportion[2] (pc/h)	*155*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*21.9*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*23.1*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*44.9*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.09*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*70*

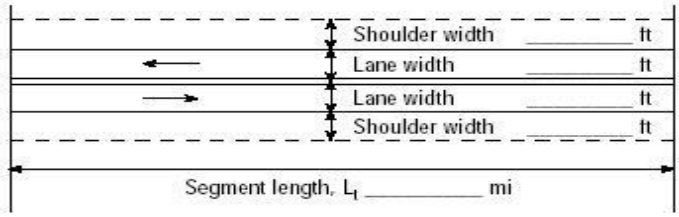
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*244*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*2.9*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Sycamore Ave.*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing+AP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*504* veh/h
Directional split	*64 / 36*
Peak-hour factor, PHF	*0.87*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*35*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*587*
v_p * highest directional split proportion[2] (pc/h)	*376*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*3.9*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*21.5*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*580*
v_p * highest directional split proportion[2] (pc/h)	*371*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*39.9*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*21.0*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*60.9*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.18*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*72*

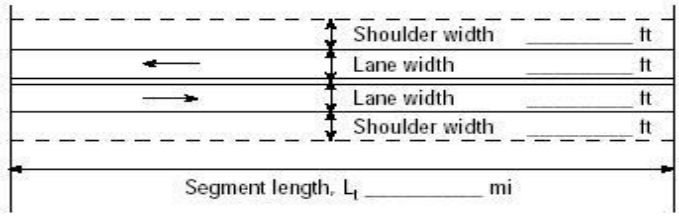
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*252*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*3.3*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Sycamore Ave.*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing+AP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*541* veh/h
Directional split	*57 / 43*
Peak-hour factor, PHF	*0.82*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*35*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*662*
v_p * highest directional split proportion[2] (pc/h)	*377*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*3.6*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*21.2*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*661*
v_p * highest directional split proportion[2] (pc/h)	*377*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*44.1*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*18.8*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*62.9*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.21*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*82*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*271*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*3.9*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

Appendix C:

Analysis Worksheets for
Existing plus Approved Projects plus Proposed Project Conditions

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Brentwood Blvd. @ Delta Road

Average Delay (sec/veh): 697.0 Worst Case Level Of Service: F[7437.3]

Street Name:	Brentwood Blvd.						Delta Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 0 1 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	770	39	68	564	0	0	0	0	63	0	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	770	39	68	564	0	0	0	0	63	0	89
Added Vol:	0	250	385	94	460	0	0	0	0	105	0	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1020	424	162	1024	0	0	0	0	168	0	105
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.91	0.91	0.91
PHF Volume:	0	1131	470	181	1142	0	0	0	0	186	0	116
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1131	470	181	1142	0	0	0	0	186	0	116
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	7.1	6.5	6.2	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1601	xxxx	xxxxx	2927	3104	1142	2869	2869	1366
Potent Cap.:	xxxx	xxxx	xxxxx	387	xxxx	xxxxx	10	12	244	18	17	180
Move Cap.:	xxxx	xxxx	xxxxx	387	xxxx	xxxxx	2	6	244	12	9	180
Volume/Cap:	xxxx	xxxx	xxxx	0.47	xxxx	xxxx	0.00	0.00	0.00	15.98	0.00	0.64
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	2.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	22.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	C	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0	xxxxx	xxxx	18	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	38.4	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	7437	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			7437.3		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #2 Sellers Ave @ Delta

Cycle (sec):	100	Critical Vol./Cap.(X):	0.565
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	13.5
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Sellers Ave.						Delta Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	44	125	69	13	202	37	18	107	85	110	123	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	44	125	69	13	202	37	18	107	85	110	123	12
Added Vol:	5	0	19	0	0	0	0	21	1	28	55	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	49	125	88	13	202	37	18	128	86	138	178	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	49	125	88	13	202	37	18	128	86	138	178	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	125	88	13	202	37	18	128	86	138	178	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	49	125	88	13	202	37	18	128	86	138	178	12
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.19	0.48	0.33	0.05	0.80	0.15	0.08	0.55	0.37	0.42	0.54	0.04
Final Sat.:	107	272	192	29	449	82	44	314	211	244	315	21
Capacity Analysis Module:												
Vol/Sat:	0.46	0.46	0.46	0.45	0.45	0.45	0.41	0.41	0.41	0.56	0.56	0.56
Crit Moves:	****			****			****					****
Delay/Veh:	13.0	13.0	13.0	13.0	13.0	13.0	12.2	12.2	12.2	15.4	15.4	15.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.0	13.0	13.0	13.0	13.0	13.0	12.2	12.2	12.2	15.4	15.4	15.4
LOS by Move:	B	B	B	B	B	B	B	B	B	C	C	C
ApproachDel:	13.0			13.0			12.2			15.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	13.0			13.0			12.2			15.4		
LOS by Appr:	B			B			B			C		
AllWayAvgQ:	0.7	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.5	1.0	1.0	1.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Brentwood Blvd. @ E. Sims Road

Average Delay (sec/veh): 676.8 Worst Case Level Of Service: F[10875.4]

Street Name:	Brentwood Blvd.						E. Sims Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	780	29	21	593	0	0	0	0	53	0	35
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	780	29	21	593	0	0	0	0	53	0	35
Added Vol:	0	616	361	108	457	0	0	0	0	63	0	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1396	390	129	1050	0	0	0	0	116	0	54
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.87	0.87	0.87	1.00	1.00	1.00	0.79	0.79	0.79
PHF Volume:	0	1485	415	148	1201	0	0	0	0	147	0	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1485	415	148	1201	0	0	0	0	147	0	68
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1900	xxxx	xxxxx	xxxx	xxxx	xxxxx	3189	3189	1693
Potent Cap.:	xxxx	xxxx	xxxxx	295	xxxx	xxxxx	xxxx	xxxx	xxxxx	11	10	115
Move Cap.:	xxxx	xxxx	xxxxx	295	xxxx	xxxxx	xxxx	xxxx	xxxxx	6	5	115
Volume/Cap:	xxxx	xxxx	xxxx	0.50	xxxx	xxxx	xxxx	xxxx	xxxx	22.82	0.00	0.59
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	2.6	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	28.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	D	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	9	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	2.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	28.6	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	28.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	D	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #4 Brentwood Blvd @ Lone Tree Way (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.213
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Brentwood Blvd						Lone Tree Way (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	1 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	300	536	23	11	604	196	135	8	140	56	10	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	300	536	23	11	604	196	135	8	140	56	10	9
Added Vol:	260	729	250	111	369	40	228	113	324	44	20	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	560	1265	273	122	973	236	363	121	464	100	30	28
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	560	1265	273	122	973	236	363	121	464	100	30	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	560	1265	273	122	973	236	363	121	464	100	30	28
RTOR Reduct:	0	0	100	0	0	0	0	0	464	0	0	28
RTOR Vol:	560	1265	173	122	973	236	363	121	0	100	30	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	560	1265	173	122	973	236	363	121	0	100	30	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.61	0.39	0.75	0.25	1.00	0.77	0.23	1.00
Final Sat.:	1650	1650	1650	1650	2656	644	1238	413	1650	1269	381	1650
Capacity Analysis Module:												
Vol/Sat:	0.34	0.77	0.10	0.07	0.37	0.37	0.29	0.29	0.00	0.08	0.08	0.00
Crit Volume:		1265			122			484			130	
Crit Moves:		****			****			****			****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Arroyo Seco Road @ Lone Tree Way

Average Delay (sec/veh): 10.1 Worst Case Level Of Service: E[41.4]

Street Name:	Arroyo Seco Road						Lone Tree Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0	1 0		1 0 0	1 0		1 0 0	1 0		0 0 1	0 0	
Volume Module:												
Base Vol:	52	0	0	0	0	0	0	8	34	0	21	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	52	0	0	0	0	0	0	8	34	0	21	0
Added Vol:	0	0	0	0	0	83	473	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	52	0	0	0	0	83	473	8	34	0	21	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	52	0	0	0	0	83	473	8	34	0	21	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	52	0	0	0	0	83	473	8	34	0	21	0
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1034	992	25	992	1009	21	21	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	211	246	1051	225	240	1056	1595	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	149	173	1051	173	169	1056	1595	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.35	0.00	0.00	0.00	0.00	0.08	0.30	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	1.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.3	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	41.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	E	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	0	xxxx	xxxx	1056	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	8.7	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	A	*	*	*	*	*	*
ApproachDel:	41.4			8.7			xxxxxx			xxxxxx		
ApproachLOS:	E			A			*			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #6 Brentwood Blvd. @ Sunrise Drive

Average Delay (sec/veh): 143.9 Worst Case Level Of Service: F[8609.2]

Street Name:	Brentwood Blvd.						Sunrise Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 1	0	0	0 0 0	1	0	0 0 1!	0	0	0 0 0	0	0
Volume Module:												
Base Vol:	6	959	0	0	840	1	8	0	11	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	959	0	0	840	1	8	0	11	0	0	0
Added Vol:	7	1221	0	0	728	8	18	0	17	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	13	2180	0	0	1568	9	26	0	28	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.93	0.93	0.93	0.75	0.75	0.75	1.00	1.00	1.00
PHF Volume:	15	2520	0	0	1693	10	35	0	37	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	15	2520	0	0	1693	10	35	0	37	0	0	0
Critical Gap Module:												
Critical Gp:	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1703	xxxx	xxxxx	xxxx	xxxx	xxxxx	4248	4248	1698	xxxx	xxxx	xxxxx
Potent Cap.:	353	xxxx	xxxxx	xxxx	xxxx	xxxxx	2	2	114	xxxx	xxxx	xxxxx
Move Cap.:	353	xxxx	xxxxx	xxxx	xxxx	xxxxx	2	2	114	xxxx	xxxx	xxxxx
Volume/Cap:	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	16.20	0.00	0.33	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	15.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	C	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	4	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	10.9	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8609	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			8609.2			xxxxxx		
ApproachLOS:	*			*			F			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Brentwood Blvd. @ Gregory Lane

Average Delay (sec/veh): 178.2 Worst Case Level Of Service: F[8924.1]

Street Name:	Brentwood Blvd.						Gregory Ln.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0	0 1	0	1 0	0 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	9	984	0	0	852	6	6	0	15	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	984	0	0	852	6	6	0	15	0	0	0
Added Vol:	7	1210	0	0	737	8	18	0	17	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	2194	0	0	1589	14	24	0	32	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.93	0.93	0.93	0.65	0.65	0.65	1.00	1.00	1.00
PHF Volume:	18	2482	0	0	1714	15	37	0	49	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	18	2482	0	0	1714	15	37	0	49	0	0	0
Critical Gap Module:												
Critical Gp:	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	1729	xxxx	xxxxx	xxxx	xxxx	xxxxx	4240	4240	1722	4264	4247	2482
Potent Cap.:	345	xxxx	xxxxx	xxxx	xxxx	xxxxx	2	2	111	1	2	38
Move Cap.:	345	xxxx	xxxxx	xxxx	xxxx	xxxxx	2	2	111	1	2	38
Volume/Cap:	0.05	xxxx	xxxx	xxxx	xxxx	xxxx	17.16	0.00	0.45	0.00	0.00	0.00
Level Of Service Module:												
2Way95thQ:	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	16.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	C	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	5	xxxxx	xxxx	0	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	12.7	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8924	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			8924.1			xxxxxx		
ApproachLOS:	*			*			F			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Brentwood Blvd. @ Hanson Lane

Average Delay (sec/veh): 3570.6 Worst Case Level Of Service: F[373766.9]

Street Name:	Brentwood Blvd.						Hanson Ln					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0	1 0	0	1 0 0	1 0	0	1 0 0	1 0	0	1 0 0	1 0	0
Volume Module:												
Base Vol:	0	965	11	21	846	0	0	0	0	27	0	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	965	11	21	846	0	0	0	0	27	0	25
Added Vol:	7	1184	9	6	740	8	18	0	17	20	0	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	7	2149	20	27	1586	8	18	0	17	47	0	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.83	0.83	0.83	1.00	1.00	1.00	0.92	0.92	0.92
PHF Volume:	8	2351	22	33	1913	10	18	0	17	51	0	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	8	2351	22	33	1913	10	18	0	17	51	0	44
Critical Gap Module:												
Critical Gp:	4.2	xxxx	xxxxx	4.2	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.3	xxxx	xxxxx	2.3	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	1923	xxxx	xxxxx	2373	xxxx	xxxxx	4382	4372	1918	4369	4365	2362
Potent Cap.:	289	xxxx	xxxxx	191	xxxx	xxxxx	1	2	84	1	2	45
Move Cap.:	289	xxxx	xxxxx	191	xxxx	xxxxx	0	1	84	1	1	45
Volume/Cap:	0.03	xxxx	xxxx	0.17	xxxx	xxxx	xxxx	0.00	0.20	96.28	0.00	0.97
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxx	0.6	xxxx	xxxxx	4.0	xxxx	xxxxx	8.6	xxxx	xxxxx
Control Del:	17.8	xxxx	xxxxx	27.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	55639	xxxx	xxxxx
LOS by Move:	C	*	*	D	*	*	F	*	*	F	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	84	xxxx	xxxx	45
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.7	xxxxx	xxxx	4.0
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	58.3	xxxxx	xxxx	265.2
Shared LOS:	*	*	*	*	*	*	*	*	F	*	*	F
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Brentwood Blvd. @ Homecoming Way

Average Delay (sec/veh): 444.1 Worst Case Level Of Service: F[18048.4]

Street Name:	Brentwood Blvd.						Homecoming Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	990	22	20	894	0	0	0	0	18	0	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	990	22	20	894	0	0	0	0	18	0	19
Added Vol:	0	1185	9	6	771	0	0	0	0	20	0	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2175	31	26	1665	0	0	0	0	38	0	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.91	0.91	0.91	1.00	1.00	1.00	0.66	0.66	0.66
PHF Volume:	0	2436	35	29	1834	0	0	0	0	58	0	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	2436	35	29	1834	0	0	0	0	58	0	52
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	2470	xxxx	xxxxx	xxxx	xxxx	xxxxx	4344	4344	2453
Potent Cap.:	xxxx	xxxx	xxxxx	175	xxxx	xxxxx	xxxx	xxxx	xxxxx	2	2	40
Move Cap.:	xxxx	xxxx	xxxxx	175	xxxx	xxxxx	xxxx	xxxx	xxxxx	2	1	40
Volume/Cap:	xxxx	xxxx	xxxx	0.16	xxxx	xxxx	xxxx	xxxx	xxxx	34.64	0.00	1.31
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.6	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	29.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	D	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	3	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	15.9	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #10 Brentwood Blvd. @ Grant Street / Sunset Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	1.601
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Brentwood Blvd.						Grant Street / Sunset Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0 1	0 1		1 0	0 1	0	0 0	1! 0	0	0	1 0	0 1
Volume Module:												
Base Vol:	51	852	101	84	693	51	35	53	46	220	65	182
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	51	852	101	84	693	51	35	53	46	220	65	182
Added Vol:	48	1076	14	9	752	29	93	1	77	28	2	25
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	99	1928	115	93	1445	80	128	54	123	248	67	207
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	99	1928	115	93	1445	80	128	54	123	248	67	207
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	99	1928	115	93	1445	80	128	54	123	248	67	207
RTOR Reduct:	0	0	115	0	0	0	0	0	0	0	0	93
RTOR Vol:	99	1928	0	93	1445	80	128	54	123	248	67	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	99	1928	0	93	1445	80	128	54	123	248	67	114
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.95	0.05	0.42	0.18	0.40	0.79	0.21	1.00
Final Sat.:	1650	1650	1650	1650	1563	87	692	292	665	1299	351	1650
Capacity Analysis Module:												
Vol/Sat:	0.06	1.17	0.00	0.06	0.92	0.92	0.18	0.18	0.18	0.19	0.19	0.07
Crit Volume:		1928		93					305		315	
Crit Moves:		****		****					****		****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #11 Brentwood Blvd. @ Sunset Ct.

Average Delay (sec/veh): 3.2 Worst Case Level Of Service: F[297.1]

Street Name:	Brentwood Blvd.						Sunset Ct.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 0 0 1		
Volume Module:												
Base Vol:	0	973	7	13	911	0	0	0	0	0	0	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	973	7	13	911	0	0	0	0	0	0	17
Added Vol:	0	1122	0	7	850	0	0	0	0	0	0	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2095	7	20	1761	0	0	0	0	0	0	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.91	0.91	0.91	1.00	1.00	1.00	0.73	0.73	0.73
PHF Volume:	0	2383	8	22	1933	0	0	0	0	0	0	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	2383	8	22	1933	0	0	0	0	0	0	46
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	2391	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	2387
Potent Cap.:	xxxx	xxxx	xxxxx	188	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	43
Move Cap.:	xxxx	xxxx	xxxxx	188	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	43
Volume/Cap:	xxxx	xxxx	xxxx	0.12	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	1.05
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	4.3
Control Del:	xxxxx	xxxx	xxxxx	26.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	297.1
LOS by Move:	*	*	*	D	*	*	*	*	*	*	*	F
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			297.1		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #12 Brentwood Blvd. @ Havenwood Ave.

Average Delay (sec/veh): 4210.6 Worst Case Level Of Service: F[75498.1]

Street Name:	Brentwood Blvd.									Havenwood Ave.								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	1	0	1	1	0	0	1	0	0	0	0	0	1	0	0	1!	0	0
Volume Module:																				
Base Vol:	5	934		50		37	870		12		0		0		11		78		0	79
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00		1.00		1.00	1.00
Initial Bse:	5	934		50		37	870		12		0		0		11		78		0	79
Added Vol:	6	1106		19		7	843		0		0		0		15		37		0	16
PasserByVol:	0	0		0		0	0		0		0		0		0		0		0	0
Initial Fut:	11	2040		69		44	1713		12		0		0		26		115		0	95
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00		1.00		1.00	1.00
PHF Adj:	0.96	0.96		0.96		0.98	0.98		0.98		0.88		0.88		0.88		0.88		0.88	0.88
PHF Volume:	12	2136		72		45	1757		12		0		0		30		131		0	109
Reduct Vol:	0	0		0		0	0		0		0		0		0		0		0	0
FinalVolume:	12	2136		72		45	1757		12		0		0		30		131		0	109
Critical Gap Module:																				
Critical Gp:	4.2	xxxx	xxxxx		4.2	xxxx	xxxxx	xxxxx	xxxx		6.2		7.1		6.5		6.2			
FollowUpTim:	2.3	xxxx	xxxxx		2.3	xxxx	xxxxx	xxxxx	xxxx		3.3		3.5		4.0		3.3			
Capacity Module:																				
Cnflict Vol:	1769	xxxx	xxxxx		2208	xxxx	xxxxx		xxxx	xxxx	1763		4027		4019		2136			
Potent Cap.:	332	xxxx	xxxxx		223	xxxx	xxxxx		xxxx	xxxx	104		1		3		62			
Move Cap.:	332	xxxx	xxxxx		223	xxxx	xxxxx		xxxx	xxxx	104		1		2		62			
Volume/Cap:	0.03	xxxx	xxxx		0.20	xxxx	xxxx		xxxx	xxxx	0.28		xxxx		0.00		1.75			
Level Of Service Module:																				
2Way95thQ:	0.1	xxxx	xxxxx		0.7	xxxx	xxxxx		xxxx	xxxx	1.1		xxxx		xxxx		xxxxx			
Control Del:	16.2	xxxx	xxxxx		25.2	xxxx	xxxxx	xxxxx	xxxx		52.7		xxxxx		xxxx		xxxxx			
LOS by Move:	C	*		*		D	*		*	*	F		*		*		*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx		2	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx		32.6	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx		xxxx	xxxxx	
Shared LOS:	*	*		*		*	*		*		*		*			*		F		*
ApproachDel:	xxxxxx					xxxxxx					52.7					xxxxxx				
ApproachLOS:	*					*					F					F				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #13 Brentwood Blvd. @ Applewood Common

Cycle (sec):	100	Critical Vol./Cap.(X):	1.323
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Brentwood Blvd.						Applewood Common					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	17	925	42	18	889	10	25	2	28	50	0	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	17	925	42	18	889	10	25	2	28	50	0	23
Added Vol:	66	1067	29	32	792	72	46	0	42	19	0	20
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	83	1992	71	50	1681	82	71	2	70	69	0	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	83	1992	71	50	1681	82	71	2	70	69	0	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	83	1992	71	50	1681	82	71	2	70	69	0	43
RTOR Reduct:	0	0	69	0	0	0	0	0	0	0	0	0
RTOR Vol:	83	1992	2	50	1681	82	71	2	70	69	0	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	83	1992	2	50	1681	82	71	2	70	69	0	43
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.95	0.05	1.00	0.03	0.97	1.00	0.00	1.00
Final Sat.:	1650	1650	1650	1650	1573	77	1650	46	1604	1650	0	1650
Capacity Analysis Module:												
Vol/Sat:	0.05	1.21	0.00	0.03	1.07	1.07	0.04	0.04	0.04	0.04	0.00	0.03
Crit Volume:		1992		50				72		69		
Crit Moves:		****		****				****		****		

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #14 Brentwood Blvd. @ Sand Creek Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	1.127
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Brentwood Blvd.						Sand Creek Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	0	0	0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	203	624	0	0	784	235	146	0	116	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	203	624	0	0	784	235	146	0	116	0	0	0
Added Vol:	75	582	73	158	441	253	479	73	104	46	46	100
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	278	1206	73	158	1225	488	625	73	220	46	46	100
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	278	1206	73	158	1225	488	625	73	220	46	46	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	278	1206	73	158	1225	488	625	73	220	46	46	100
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	278	1206	73	158	1225	488	625	73	220	46	46	100
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	278	1206	73	158	1225	488	625	73	220	46	46	100
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.89	0.11	1.00	1.43	0.57	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1650	3112	188	1650	2360	940	1650	1650	1650	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.17	0.39	0.39	0.10	0.52	0.52	0.38	0.04	0.13	0.03	0.03	0.06
Crit Volume:	278				857		625					100
Crit Moves:	****				****		****					****

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #15 Brentwood Blvd. @ Technology Way

Cycle (sec): 100 Critical Vol./Cap.(X): 0.472
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 35 Level Of Service: A

Street Name:	Brentwood Blvd.						Technology Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	6	6	0	6	6	4	4	4	0	0	0
Lanes:	1 0	2 0	0	0 0	1 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	39	826	0	0	802	23	13	0	28	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	39	826	0	0	802	23	13	0	28	0	0	0
Added Vol:	15	694	0	0	535	56	36	0	9	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	54	1520	0	0	1337	79	49	0	37	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	54	1520	0	0	1337	79	49	0	37	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	1520	0	0	1337	79	49	0	37	0	0	0
RTOR Reduct:	0	0	0	0	0	0	0	0	37	0	0	0
RTOR Vol:	54	1520	0	0	1337	79	49	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	54	1520	0	0	1337	79	49	0	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.89	0.11	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1720	3440	0	0	3248	192	1720	0	1720	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.44	0.00	0.00	0.41	0.41	0.03	0.00	0.00	0.00	0.00	0.00
Crit Volume:	54					708	49				0	
Crit Moves:	****					****	****					

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #16 Brentwood Blvd @ Nancy Street (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.602
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	B

Street Name:	Brentwood Blvd						Nancy Street (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	7	7	4	7	7	0	0	0	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	0	852	29	61	863	0	0	0	0	63	0	42
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	852	29	61	863	0	0	0	0	63	0	42
Added Vol:	27	624	15	46	412	86	55	0	17	9	0	29
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	27	1476	44	107	1275	86	55	0	17	72	0	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	27	1476	44	107	1275	86	55	0	17	72	0	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	27	1476	44	107	1275	86	55	0	17	72	0	71
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	27	1476	44	107	1275	86	55	0	17	72	0	71
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	27	1476	44	107	1275	86	55	0	17	72	0	71
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.94	0.06	1.00	1.87	0.13	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1650	3204	96	1650	3091	209	1650	0	1650	1650	0	1650
Capacity Analysis Module:												
Vol/Sat:	0.02	0.46	0.46	0.06	0.41	0.41	0.03	0.00	0.01	0.04	0.00	0.04
Crit Volume:		760			107			55				71
Crit Moves:		****			****			****				****

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #17 Brentwood Blvd. @ Village Drive

Average Delay (sec/veh): 55.9 Worst Case Level Of Service: F[1545.0]

Street Name:	Brentwood Blvd.						Village Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	817	21	16	756	0	0	0	0	15	0	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	817	21	16	756	0	0	0	0	15	0	22
Added Vol:	0	637	15	46	393	0	0	0	0	9	0	29
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1454	36	62	1149	0	0	0	0	24	0	51
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.81	0.81	0.81	1.00	1.00	1.00	0.66	0.66	0.66
PHF Volume:	0	1518	38	76	1412	0	0	0	0	36	0	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1518	38	76	1412	0	0	0	0	36	0	77
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1555	xxxx	xxxxx	xxxx	xxxx	xxxxx	3100	3100	1537
Potent Cap.:	xxxx	xxxx	xxxxx	403	xxxx	xxxxx	xxxx	xxxx	xxxxx	13	12	143
Move Cap.:	xxxx	xxxx	xxxxx	403	xxxx	xxxxx	xxxx	xxxx	xxxxx	11	9	143
Volume/Cap:	xxxx	xxxx	xxxx	0.19	xxxx	xxxx	xxxx	xxxx	xxxx	3.28	0.00	0.54
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.7	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	16.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	C	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	30	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	13.6	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1545	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			1545.0		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #18 Brentwood Blvd. @ Central Blvd / Sycamore Ave (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.937
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Street Name:	Brentwood Blvd.						Central Blvd / Sycamore Ave (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	15	15	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	1	1 0	1 0	1	0	1 0	1	0 1
Volume Module:												
Base Vol:	43	587	42	78	615	112	140	59	41	69	119	137
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	43	587	42	78	615	112	140	59	41	69	119	137
Added Vol:	2	478	15	92	259	51	114	6	3	9	4	59
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	1065	57	170	874	163	254	65	44	78	123	196
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	45	1065	57	170	874	163	254	65	44	78	123	196
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	1065	57	170	874	163	254	65	44	78	123	196
RTOR Reduct:	0	0	57	0	0	0	0	0	0	0	0	170
RTOR Vol:	45	1065	0	170	874	163	254	65	44	78	123	26
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	1065	0	170	874	163	254	65	44	78	123	26
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.69	0.31	1.00	1.19	0.81	1.00	1.00	1.00
Final Sat.:	1720	1720	1720	1720	2899	541	1720	2051	1389	1720	1720	1720
Capacity Analysis Module:												
Vol/Sat:	0.03	0.62	0.00	0.10	0.30	0.30	0.15	0.03	0.03	0.05	0.07	0.02
Crit Volume:		1065		170			254				123	
Crit Moves:		****		****			****				****	

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #20 Central Street @ Second Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.377		
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx		
Optimal Cycle:	37	Level Of Service:	A		

Street Name:	Second Street						Central Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ignore		
Min. Green:	5	5	5	5	5	5	5	7	7	5	7	7
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	80	195	36	54	388	4	6	257	182	51	263	49
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	80	195	36	54	388	4	6	257	182	51	263	49
Added Vol:	0	26	0	0	16	13	20	123	0	0	57	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	80	221	36	54	404	17	26	380	182	51	320	49
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	80	221	36	54	404	17	26	380	182	51	320	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	221	36	54	404	17	26	380	182	51	320	49
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	80	221	36	54	404	17	26	380	182	51	320	49
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
FinalVolume:	80	221	36	54	404	17	26	380	182	51	320	49
Saturation Flow Module:												
Sat/Lane:	1650 1650	1650		1650 1650	1650		1650 1650	1650		1650 1650	1650	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Lanes:	1.00 1.72	0.28		1.00 1.92	0.08		1.00 1.35	0.65		1.00 2.00	1.00	
Final Sat.:	1650 2838	462		1650 3167	133		1650 2231	1069		1650 3300	1650	
Capacity Analysis Module:												
Vol/Sat:	0.05 0.08	0.08		0.03 0.13	0.13		0.02 0.17	0.17		0.03 0.10	0.03	
Crit Volume:	80			211				281		51		
Crit Moves:	****			****				****		****		

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #21 Central Blvd @ Walnut Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.287
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Street Name:	Walnut Blvd						Central Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	5	7	7	5	7	7	5	7	7	5	7	7
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	20	3	115	2	0	1	2	435	24	151	431	6
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	20	3	115	2	0	1	2	435	24	151	431	6
Added Vol:	0	0	5	0	0	0	0	138	0	3	67	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	3	120	2	0	1	2	573	24	154	498	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	20	3	120	2	0	1	2	573	24	154	498	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	3	120	2	0	1	2	573	24	154	498	6
RTOR Reduct:	0	0	120	0	0	0	0	0	0	0	0	0
RTOR Vol:	20	3	0	2	0	1	2	573	24	154	498	6
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	3	0	2	0	1	2	573	24	154	498	6
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.92	0.08	1.00	1.98	0.02
Final Sat.:	1650	1650	1650	1650	0	1650	1650	3167	133	1650	3261	39
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.18	0.09	0.15	0.15
Crit Volume:	20					1		299		154		
Crit Moves:	****					****		****		****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #22 Brentwood Blvd @ Pine Street

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: C[24.3]

Street Name:	Brentwood Blvd						Pine Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1	1 0		0 1	1 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	547	102	21	672	0	0	0	0	15	0	59
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	547	102	21	672	0	0	0	0	15	0	59
Added Vol:	0	497	0	0	240	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1044	102	21	912	0	0	0	0	15	0	59
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1044	102	21	912	0	0	0	0	15	0	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1044	102	21	912	0	0	0	0	15	0	59
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1146	xxxx	xxxxx	xxxx	xxxx	xxxxx	1593	2049	573
Potent Cap.:	xxxx	xxxx	xxxxx	562	xxxx	xxxxx	xxxx	xxxx	xxxxx	98	55	463
Move Cap.:	xxxx	xxxx	xxxxx	562	xxxx	xxxxx	xxxx	xxxx	xxxxx	95	53	463
Volume/Cap:	xxxx	xxxx	xxxx	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	0.16	0.00	0.13
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	11.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	259	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	11.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	24.3	xxxxx
Shared LOS:	*	*	*	B	*	*	*	*	*	*	C	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			24.3		
ApproachLOS:	*			*			*			C		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #23 Brentwood Blvd @ Maple Street

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: B[13.3]

Street Name:	Brentwood Blvd						Maple Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1 0	1	0	0 1 0	1	0	0 0 0	0	0	0 0 0	0	1
Volume Module:												
Base Vol:	0	628	36	39	655	0	0	0	0	0	0	21
Growth Adj:	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00
Initial Bse:	0	628	36	39	655	0	0	0	0	0	0	21
Added Vol:	0	497	0	0	240	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1125	36	39	895	0	0	0	0	0	0	21
User Adj:	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00
PHF Adj:	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00
PHF Volume:	0	1125	36	39	895	0	0	0	0	0	0	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1125	36	39	895	0	0	0	0	0	0	21
Critical Gap Module:												
Critical Gp:	xxxxx xxxx xxxxx		4.3	xxxx xxxxx xxxxx			xxxx xxxxx xxxxx			xxxx		6.9
FollowUpTim:	xxxxx xxxx xxxxx		2.3	xxxx xxxxx xxxxx			xxxx xxxxx xxxxx			xxxx		3.3
Capacity Module:												
Cnflict Vol:	xxxx xxxx xxxxx		1161	xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx		581
Potent Cap.:	xxxx xxxx xxxxx		554	xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx		457
Move Cap.:	xxxx xxxx xxxxx		554	xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx		457
Volume/Cap:	xxxx xxxx	xxxx	0.07	xxxx	xxxx		xxxx xxxx	xxxx		xxxx xxxx		0.05
Level Of Service Module:												
2Way95thQ:	xxxx xxxx xxxxx		0.2	xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx		0.1
Control Del:	xxxxx xxxx xxxxx		12.0	xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx		13.3
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	B
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx xxxxx		
SharedQueue:	0.0 xxxx xxxxx			0.2 xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx xxxxx		
Shrd ConDel:	9.0 xxxx xxxxx			12.0 xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx xxxxx		
Shared LOS:	A	*	*	B	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			13.3		
ApproachLOS:	*			*			*			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #24 Brentwood Blvd @ Oak Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.567
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	53	Level Of Service:	A

Street Name:	Brentwood Blvd.						Oak St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 1	0 1	0	1 0	1 0	1
Volume Module:												
Base Vol:	109	488	62	25	474	136	175	199	151	81	159	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	109	488	62	25	474	136	175	199	151	81	159	20
Added Vol:	0	363	0	0	176	64	134	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	109	851	62	25	650	200	309	199	151	81	159	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	109	851	62	25	650	200	309	199	151	81	159	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	109	851	62	25	650	200	309	199	151	81	159	20
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	20
RTOR Vol:	109	851	62	25	650	200	309	199	151	81	159	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	109	851	62	25	650	200	309	199	151	81	159	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.86	0.14	1.00	1.53	0.47	1.40	0.91	0.69	1.00	1.00	1.00
Final Sat.:	1650	3076	224	1650	2524	776	2105	1495	1139	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.07	0.28	0.28	0.02	0.26	0.26	0.15	0.13	0.13	0.05	0.10	0.00
Crit Volume:	109				425		220				159	
Crit Moves:	****				****		****				****	

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #25 Walnut Blvd @ Oak St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.438
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	A

Street Name:	Walnut Blvd						Oak St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	5	7	7	0	7	7	5	5	5	5	5	5
Lanes:	1 0	1 0	1	1 0	0 1	0	0 1	0 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	3	132	286	236	167	3	1	1	0	283	0	124
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	132	286	236	167	3	1	1	0	283	0	124
Added Vol:	0	5	134	0	3	0	0	0	0	64	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	137	420	236	170	3	1	1	0	347	0	124
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	137	420	236	170	3	1	1	0	347	0	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	137	420	236	170	3	1	1	0	347	0	124
RTOR Reduct:	0	0	347	0	0	0	0	0	0	0	0	124
RTOR Vol:	3	137	73	236	170	3	1	1	0	347	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	3	137	73	236	170	3	1	1	0	347	0	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.98	0.02	0.50	0.50	0.00	1.00	0.00	1.00
Final Sat.:	1650	1650	1650	1650	1621	29	825	825	0	1650	0	1650
Capacity Analysis Module:												
Vol/Sat:	0.00	0.08	0.04	0.14	0.10	0.10	0.00	0.00	0.00	0.21	0.00	0.00
Crit Volume:		137		236				2		347		
Crit Moves:		****		****				****		****		

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #26 Brentwood Blvd. @ Second St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.574
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	A

Street Name:	Brentwood Blvd.						Second St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	111	496	21	203	564	22	114	403	90	35	188	148
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	111	496	21	203	564	22	114	403	90	35	188	148
Added Vol:	26	471	0	0	223	0	0	0	16	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	137	967	21	203	787	22	114	403	106	35	188	148
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	137	967	21	203	787	22	114	403	106	35	188	148
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	137	967	21	203	787	22	114	403	106	35	188	148
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	148
RTOR Vol:	137	967	21	203	787	22	114	403	106	35	188	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	137	967	21	203	787	22	114	403	106	35	188	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.96	0.04	1.00	1.95	0.05	1.00	1.58	0.42	1.00	2.00	1.00
Final Sat.:	1720	3367	73	1720	3346	94	1720	2724	716	1720	3440	1720
Capacity Analysis Module:												
Vol/Sat:	0.08	0.29	0.29	0.12	0.24	0.24	0.07	0.15	0.15	0.02	0.05	0.00
Crit Volume:	494			203			255			35		
Crit Moves:	****			****			****			****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #27 Brentwood Blvd. @ Chestnut St.

Average Delay (sec/veh): 2.9 Worst Case Level Of Service: F[71.3]

Street Name:	Brentwood Blvd.						Chestnut St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	631	40	50	659	0	0	0	0	30	0	44
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	631	40	50	659	0	0	0	0	30	0	44
Added Vol:	0	363	0	0	176	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	994	40	50	835	0	0	0	0	30	0	44
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	994	40	50	835	0	0	0	0	30	0	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	994	40	50	835	0	0	0	0	30	0	44
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1034	xxxx	xxxxx	xxxx	xxxx	xxxxx	1949	1949	1014
Potent Cap.:	xxxx	xxxx	xxxxx	642	xxxx	xxxxx	xxxx	xxxx	xxxxx	71	64	290
Move Cap.:	xxxx	xxxx	xxxxx	642	xxxx	xxxxx	xxxx	xxxx	xxxxx	67	59	290
Volume/Cap:	xxxx	xxxx	xxxx	0.08	xxxx	xxxx	xxxx	xxxx	xxxx	0.45	0.00	0.15
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	11.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	123	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	3.0	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	11.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	71.3	xxxxx
Shared LOS:	*	*	*	B	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			71.3		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #28 Brentwood Blvd. @ Balfour Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.666
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	68	Level Of Service:	B

Street Name:	Brentwood Blvd.						Balfour Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	8	10	10	6	10	10	5	5	5	4	5	5
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	1 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	267	381	15	84	367	238	261	353	333	40	458	124
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	267	381	15	84	367	238	261	353	333	40	458	124
Added Vol:	0	325	7	20	155	0	0	0	0	5	0	38
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	267	706	22	104	522	238	261	353	333	45	458	162
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	267	706	22	104	522	238	261	353	333	45	458	162
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	267	706	22	104	522	238	261	353	333	45	458	162
RTOR Reduct:	0	0	0	0	0	238	0	0	267	0	0	0
RTOR Vol:	267	706	22	104	522	0	261	353	66	45	458	162
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	267	706	22	104	522	0	261	353	66	45	458	162
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.48	0.52
Final Sat.:	1650	3300	1650	1650	3300	1650	1650	1650	1650	1650	2438	862
Capacity Analysis Module:												
Vol/Sat:	0.16	0.21	0.01	0.06	0.16	0.00	0.16	0.21	0.04	0.03	0.19	0.19
Crit Volume:	267				261		261					310
Crit Moves:	****				****		****					****

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #29 Sellers Ave. @ Sunet Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.611
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	13.1
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Sellers Ave.						Sunset Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	81	175	8	13	275	103	45	59	77	19	65	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	81	175	8	13	275	103	45	59	77	19	65	24
Added Vol:	11	5	0	0	1	28	19	0	5	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	92	180	8	13	276	131	64	59	82	19	65	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	92	180	8	13	276	131	64	59	82	19	65	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	180	8	13	276	131	64	59	82	19	65	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	92	180	8	13	276	131	64	59	82	19	65	24
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.33	0.64	0.03	0.03	0.66	0.31	0.31	0.29	0.40	0.18	0.60	0.22
Final Sat.:	206	403	18	21	452	214	180	166	231	93	319	118
Capacity Analysis Module:												
Vol/Sat:	0.45	0.45	0.45	0.61	0.61	0.61	0.36	0.36	0.36	0.20	0.20	0.20
Crit Moves:		****			****			****			****	
Delay/Veh:	12.4	12.4	12.4	15.1	15.1	15.1	11.4	11.4	11.4	10.2	10.2	10.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.4	12.4	12.4	15.1	15.1	15.1	11.4	11.4	11.4	10.2	10.2	10.2
LOS by Move:	B	B	B	C	C	C	B	B	B	B	B	B
ApproachDel:	12.4			15.1			11.4			10.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.4			15.1			11.4			10.2		
LOS by Appr:	B			C			B			B		
AllWayAvgQ:	0.7	0.7	0.7	1.3	1.3	1.3	0.4	0.4	0.4	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Brentwood Blvd. @ Delta Road

Average Delay (sec/veh): 3259.1 Worst Case Level Of Service: F[17141.7]

Street Name:	Brentwood Blvd.						Delta Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 0 1 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	862	104	63	810	0	0	0	0	80	0	81
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	862	104	63	810	0	0	0	0	80	0	81
Added Vol:	0	487	125	21	293	0	0	0	0	349	0	84
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1349	229	84	1103	0	0	0	0	429	0	165
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.94	0.94	0.94	1.00	1.00	1.00	0.86	0.86	0.86
PHF Volume:	0	1449	246	89	1172	0	0	0	0	501	0	193
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1449	246	89	1172	0	0	0	0	501	0	193
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	7.1	6.5	6.2	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1695	xxxx	xxxxx	3019	3046	1172	2923	2923	1572
Potent Cap.:	xxxx	xxxx	xxxxx	356	xxxx	xxxxx	8	13	234	17	15	136
Move Cap.:	xxxx	xxxx	xxxxx	356	xxxx	xxxxx	0	9	234	14	11	136
Volume/Cap:	xxxx	xxxx	xxxx	0.25	xxxx	xxxx	xxxx	0.00	0.00	36.78	0.00	1.42
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	1.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	18.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	C	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0	xxxxx	xxxx	18	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	87.4	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #2 Sellers Ave @ Delta

Cycle (sec):	100	Critical Vol./Cap.(X):	0.457
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.1
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Sellers Ave.						Delta Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	67	173	31	11	152	16	28	84	45	32	72	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	173	31	11	152	16	28	84	45	32	72	23
Added Vol:	1	0	31	0	0	0	0	55	4	21	26	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	68	173	62	11	152	16	28	139	49	53	98	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	68	173	62	11	152	16	28	139	49	53	98	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	173	62	11	152	16	28	139	49	53	98	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	68	173	62	11	152	16	28	139	49	53	98	23
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.22	0.58	0.20	0.06	0.85	0.09	0.13	0.64	0.23	0.30	0.57	0.13
Final Sat.:	149	379	136	38	529	56	81	404	142	184	341	80
Capacity Analysis Module:												
Vol/Sat:	0.46	0.46	0.46	0.29	0.29	0.29	0.34	0.34	0.34	0.29	0.29	0.29
Crit Moves:	****			****			****			****		
Delay/Veh:	12.0	12.0	12.0	10.3	10.3	10.3	10.8	10.8	10.8	10.4	10.4	10.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.0	12.0	12.0	10.3	10.3	10.3	10.8	10.8	10.8	10.4	10.4	10.4
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	B
ApproachDel:	12.0			10.3			10.8			10.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.0			10.3			10.8			10.4		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	0.7	0.7	0.7	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Brentwood Blvd. @ E. Sims Road

Average Delay (sec/veh): 4630.4 Worst Case Level Of Service: F[34804.9]

Street Name:	Brentwood Blvd.						E. Sims Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	961	37	31	863	0	0	0	0	53	0	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	961	37	31	863	0	0	0	0	53	0	21
Added Vol:	0	515	81	24	618	0	0	0	0	322	0	96
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1476	118	55	1481	0	0	0	0	375	0	117
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	1.00	1.00	1.00	0.90	0.90	0.90
PHF Volume:	0	1675	134	62	1679	0	0	0	0	415	0	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1675	134	62	1679	0	0	0	0	415	0	130
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1809	xxxx	xxxxx	xxxx	xxxx	xxxxx	3546	3546	1742
Potent Cap.:	xxxx	xxxx	xxxxx	321	xxxx	xxxxx	xxxx	xxxx	xxxxx	7	6	107
Move Cap.:	xxxx	xxxx	xxxxx	321	xxxx	xxxxx	xxxx	xxxx	xxxxx	6	5	107
Volume/Cap:	xxxx	xxxx	xxxx	0.19	xxxx	xxxx	xxxx	xxxx	xxxx	74.89	0.00	1.21
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.7	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	18.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	C	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	7	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	70.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	18.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	C	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #4 Brentwood Blvd @ Lone Tree Way (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.261
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Brentwood Blvd						Lone Tree Way (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0 1	0 1		1 0 1	1 0		0 1 0	0 1		0 1 0	0 1	
Volume Module:												
Base Vol:	222	672	44	15	693	124	169	8	174	31	5	6
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	222	672	44	15	693	124	169	8	174	31	5	6
Added Vol:	380	446	56	25	711	204	51	25	300	223	101	99
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	602	1118	100	40	1404	328	220	33	474	254	106	105
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	602	1118	100	40	1404	328	220	33	474	254	106	105
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	602	1118	100	40	1404	328	220	33	474	254	106	105
RTOR Reduct:	0	0	100	0	0	0	0	0	474	0	0	40
RTOR Vol:	602	1118	0	40	1404	328	220	33	0	254	106	65
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	602	1118	0	40	1404	328	220	33	0	254	106	65
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.62	0.38	0.87	0.13	1.00	0.71	0.29	1.00
Final Sat.:	1650	1650	1650	1650	2675	625	1435	215	1650	1164	486	1650
Capacity Analysis Module:												
Vol/Sat:	0.36	0.68	0.00	0.02	0.52	0.52	0.15	0.15	0.00	0.22	0.22	0.04
Crit Volume:	602					866		253			360	
Crit Moves:	****					****		****			****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Arroyo Seco Road @ Lone Tree Way

Average Delay (sec/veh): 9.0 Worst Case Level Of Service: C[19.0]

Street Name:	Arroyo Seco Road									Lone Tree Way								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	0	0	1	0	0
Volume Module:																				
Base Vol:	29	0	1	0	0	0	0	25	47	0	16	0								
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
Initial Bse:	29	0	1	0	0	0	0	25	47	0	16	0								
Added Vol:	0	0	0	0	0	423	106	0	0	0	0	0								
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0								
Initial Fut:	29	0	1	0	0	423	106	25	47	0	16	0								
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
PHF Volume:	29	0	1	0	0	423	106	25	47	0	16	0								
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
FinalVolume:	29	0	1	0	0	423	106	25	47	0	16	0								
Critical Gap Module:																				
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
Capacity Module:																				
Cnflict Vol:	488	277	49	277	300	16	16	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Potent Cap.:	490	631	1020	675	612	1063	1602	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Move Cap.:	280	589	1020	641	572	1063	1602	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Volume/Cap:	0.10	0.00	0.00	0.00	0.00	0.40	0.07	xxxx	xxxx	xxxx	xxxx	xxxx								
Level Of Service Module:																				
2Way95thQ:	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Control Del:	19.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
LOS by Move:	C	*	*	*	*	*	A	*	*	*	*	*								
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	1020	xxxx	xxxx	1063	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx							
SharedQueue:	xxxxx	xxxx	0.0	xxxxx	xxxx	1.9	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx							
Shrd ConDel:	xxxxx	xxxx	8.5	xxxxx	xxxx	10.6	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx							
Shared LOS:	*	*	A	*	*	B	*	*	*		*	*	*							
ApproachDel:	19.0			10.6			xxxxxx				xxxxxx									
ApproachLOS:	C			B			*				*									

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #6 Brentwood Blvd. @ Sunrise Drive

Average Delay (sec/veh): 2033.5 Worst Case Level Of Service: F[108414.7]

Street Name:	Brentwood Blvd.						Sunrise Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 1	0	0	0 0 0	1	0	0 0 1!	0	0	0 0 0	0	0
Volume Module:												
Base Vol:	38 1253	0	0	1148	23		15	0	21		0	0
Growth Adj:	1.00 1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
Initial Bse:	38 1253	0	0	1148	23		15	0	21		0	0
Added Vol:	20 865	0	0	1212	22		17	0	16		0	0
PasserByVol:	0 0	0	0	0	0		0	0	0		0	0
Initial Fut:	58 2118	0	0	2360	45		32	0	37		0	0
User Adj:	1.00 1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
PHF Adj:	0.85 0.85	0.85	0.87	0.87	0.87		0.68	0.68	0.68		1.00	1.00
PHF Volume:	68 2489	0	0	2710	52		47	0	54		0	0
Reduct Vol:	0 0	0	0	0	0		0	0	0		0	0
FinalVolume:	68 2489	0	0	2710	52		47	0	54		0	0
Critical Gap Module:												
Critical Gp:	4.2 xxxx xxxxx	xxxxx	xxxx	xxxxx	6.4		6.5	6.2	xxxxx		xxxx	xxxxx
FollowUpTim:	2.3 xxxx xxxxx	xxxxx	xxxx	xxxxx	3.5		4.0	3.3	xxxxx		xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	2761 xxxx xxxxx	xxxx	xxxx	xxxxx	5361		5361	2735	xxxx		xxxx	xxxxx
Potent Cap.:	133 xxxx xxxxx	xxxx	xxxx	xxxxx	0		0	26	xxxx		xxxx	xxxxx
Move Cap.:	133 xxxx xxxxx	xxxx	xxxx	xxxxx	0		0	26	xxxx		xxxx	xxxxx
Volume/Cap:	0.51 xxxx xxxx	xxxx	xxxx	xxxx	xxxx		0.00	2.07	xxxx		xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	2.4 xxxx xxxxx	xxxx	xxxx	xxxxx	xxxx		xxxx	xxxxx	xxxx		xxxx	xxxxx
Control Del:	57.4 xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx		xxxx	xxxxx	xxxxx		xxxx	xxxxx
LOS by Move:	F *	*	*	*	*		*	*	*		*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx	0	xxxxx		xxxx xxxx	xxxxx
SharedQueue:	xxxxx xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx	15.2	xxxxx		xxxx xxxx	xxxxx
Shrd ConDel:	xxxxx xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx	xxxx	xxxxx		xxxx xxxx	xxxxx
Shared LOS:	* *	*	*	*	*		*	F	*		*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			F			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Brentwood Blvd. @ Gregory Lane

Average Delay (sec/veh): 2355.5 Worst Case Level Of Service: F[119289.2]

Street Name:	Brentwood Blvd.									Gregory Ln.								
Approach:	North Bound				South Bound					East Bound				West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	0	1	0	1	0	0	1	0	0	0	1!	0	0	0	0	1!	0	0
Volume Module:																				
Base Vol:	28	1251		0		0	1116		40		30		0		37		0		0	
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00		1.00		1.00	
Initial Bse:	28	1251		0		0	1116		40		30		0		37		0		0	
Added Vol:	20	869		0		0	1206		22		17		0		16		0		0	
PasserByVol:	0	0		0		0	0		0		0		0		0		0		0	
Initial Fut:	48	2120		0		0	2322		62		47		0		53		0		0	
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	0.89	0.89		0.89		0.81	0.81		0.81		0.92		0.92		0.92		1.00		1.00	
PHF Volume:	54	2395		0		0	2860		76		51		0		57		0		0	
Reduct Vol:	0	0		0		0	0		0		0		0		0		0		0	
FinalVolume:	54	2395		0		0	2860		76		51		0		57		0		0	
Critical Gap Module:																				
Critical Gp:	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx					6.4		6.5		6.2		7.1		6.5	
FollowUpTim:	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx					3.5		4.0		3.3		3.5		4.0	
Capacity Module:																				
Cnflict Vol:	2936	xxxx	xxxxx	xxxx	xxxx	xxxxx					5402		5402		2898		5430		5440	
Potent Cap.:	113	xxxx	xxxxx	xxxx	xxxx	xxxxx					0		0		21		0		0	
Move Cap.:	113	xxxx	xxxxx	xxxx	xxxx	xxxxx					0		0		21		0		0	
Volume/Cap:	0.48	xxxx	xxxx	xxxx	xxxx	xxxx					xxxx		0.00		2.76		xxxx		0.00	
Level Of Service Module:																				
2Way95thQ:	2.1	xxxx	xxxxx	xxxx	xxxx	xxxxx					xxxx		xxxx		xxxxx		xxxx		xxxx	
Control Del:	63.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx					xxxxx		xxxx		xxxxx		xxxxx		xxxx	
LOS by Move:	F	*		*		*					*		*		*		*		*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx		0	xxxxx		xxxx		0	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx		16.0	xxxxx		xxxxx		xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx		xxxx	xxxxx		xxxxx		xxxx	xxxxx	
Shared LOS:	*		*			*		*			*		F			*		*		
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					xxxxxx				
ApproachLOS:	*					*					F					*				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Brentwood Blvd. @ Hanson Lane

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Brentwood Blvd.						Hanson Ln					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0	1 0	0	1 0 0	1 0	0	1 0 0	1 0	0	1 0 0	1 0	0
Volume Module:												
Base Vol:	0 1141	24		28 1146	0		0 0	0		32 0	22	
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	0 1141	24		28 1146	0		0 0	0		32 0	22	
Added Vol:	20 859	24		18 1182	22		17 0	16		18 0	14	
PasserByVol:	0 0	0		0 0	0		0 0	0		0 0	0	
Initial Fut:	20 2000	48		46 2328	22		17 0	16		50 0	36	
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	0.85 0.85	0.85		0.87 0.87	0.87		1.00 1.00	1.00		0.77 0.77	0.77	
PHF Volume:	24 2356	57		53 2688	25		17 0	16		65 0	47	
Reduct Vol:	0 0	0		0 0	0		0 0	0		0 0	0	
FinalVolume:	24 2356	57		53 2688	25		17 0	16		65 0	47	
Critical Gap Module:												
Critical Gp:	4.2 xxxx xxxxx			4.2 xxxx xxxxx			7.1 6.5	6.2		7.1 6.5	6.2	
FollowUpTim:	2.3 xxxx xxxxx			2.3 xxxx xxxxx			3.5 4.0	3.3		3.5 4.0	3.3	
Capacity Module:												
Cnflict Vol:	2714 xxxx xxxxx			2412 xxxx xxxxx			5262 5267	2701		5246 5251	2384	
Potent Cap.:	139 xxxx xxxxx			184 xxxx xxxxx			0 0	28		0 0	44	
Move Cap.:	139 xxxx xxxxx			184 xxxx xxxxx			0 0	28		0 0	44	
Volume/Cap:	0.17 xxxx xxxx			0.29 xxxx xxxx			xxxx 0.00	0.58		xxxx 0.00	1.08	
Level Of Service Module:												
2Way95thQ:	0.6 xxxx xxxxx			1.1 xxxx xxxxx			xxxx xxxx xxxxx			10.5 xxxx xxxxx		
Control Del:	36.1 xxxx xxxxx			32.2 xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx xxxx xxxxx		
LOS by Move:	E *	*		D *	*		* *	*		F *	*	
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx	28		xxxx xxxx	44	
SharedQueue:	xxxxx xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx xxxx	1.8		xxxxx xxxx	4.4	
Shrd ConDel:	xxxxx xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx xxxx	246.9		xxxxx xxxx	305.4	
Shared LOS:	* *	*		* *	*		* *	F		* *	F	
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Brentwood Blvd. @ Homecoming Way

Average Delay (sec/veh): 2051.6 Worst Case Level Of Service: F[104874.5]

Street Name:	Brentwood Blvd.						Homecoming Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	1192	20	9	1194	0	0	0	0	7	0	6
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1192	20	9	1194	0	0	0	0	7	0	6
Added Vol:	0	890	24	18	1198	0	0	0	0	18	0	14
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2082	44	27	2392	0	0	0	0	25	0	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.82	0.82	0.82	0.86	0.86	0.86	1.00	1.00	1.00	0.42	0.42	0.42
PHF Volume:	0	2533	54	32	2791	0	0	0	0	60	0	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	2533	54	32	2791	0	0	0	0	60	0	48
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	2586	xxxx	xxxxx	xxxx	xxxx	xxxxx	5414	5414	2560
Potent Cap.:	xxxx	xxxx	xxxxx	157	xxxx	xxxxx	xxxx	xxxx	xxxxx	0	0	34
Move Cap.:	xxxx	xxxx	xxxxx	157	xxxx	xxxxx	xxxx	xxxx	xxxxx	0	0	34
Volume/Cap:	xxxx	xxxx	xxxx	0.20	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	1.41
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.7	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	33.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	D	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	1	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	16.0	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #10 Brentwood Blvd. @ Grant Street / Sunset Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	1.730
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Brentwood Blvd.						Grant Street / Sunset Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	0 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	30	1028	171	143	1026	19	26	75	34	175	60	170
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	1028	171	143	1026	19	26	75	34	175	60	170
Added Vol:	86	853	32	27	1096	94	44	2	61	24	2	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	116	1881	203	170	2122	113	70	77	95	199	62	186
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	116	1881	203	170	2122	113	70	77	95	199	62	186
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	116	1881	203	170	2122	113	70	77	95	199	62	186
RTOR Reduct:	0	0	199	0	0	0	0	0	0	0	0	170
RTOR Vol:	116	1881	4	170	2122	113	70	77	95	199	62	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	116	1881	4	170	2122	113	70	77	95	199	62	16
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.95	0.05	0.29	0.32	0.39	0.76	0.24	1.00
Final Sat.:	1650	1650	1650	1650	1567	83	477	525	648	1258	392	1650
Capacity Analysis Module:												
Vol/Sat:	0.07	1.14	0.00	0.10	1.35	1.35	0.15	0.15	0.15	0.16	0.16	0.01
Crit Volume:	116				2235				242		261	
Crit Moves:	****				****				****		****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #11 Brentwood Blvd. @ Sunset Ct.

Average Delay (sec/veh): 9.2 Worst Case Level Of Service: F[668.4]

Street Name:	Brentwood Blvd.						Sunset Ct.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 0 0 1		
Volume Module:												
Base Vol:	0	1276	15	6	1268	0	0	0	0	0	0	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1276	15	6	1268	0	0	0	0	0	0	25
Added Vol:	0	956	0	19	1161	0	0	0	0	0	0	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2232	15	25	2429	0	0	0	0	0	0	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.94	0.94	0.94	1.00	1.00	1.00	0.57	0.57	0.57
PHF Volume:	0	2497	17	27	2595	0	0	0	0	0	0	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	2497	17	27	2595	0	0	0	0	0	0	71
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	2513	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	2505
Potent Cap.:	xxxx	xxxx	xxxxx	168	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	37
Move Cap.:	xxxx	xxxx	xxxxx	168	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	37
Volume/Cap:	xxxx	xxxx	xxxx	0.16	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	1.92
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.6	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	7.7
Control Del:	xxxxx	xxxx	xxxxx	30.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	668.4
LOS by Move:	*	*	*	D	*	*	*	*	*	*	*	F
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			668.4		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #12 Brentwood Blvd. @ Havenwood Ave.

Average Delay (sec/veh): 129314.5 Worst Case Level Of Service: F[xxxxx]

Street Name:	Brentwood Blvd.						Havenwood Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 1	0 1		1 0 0	1 0		0 0 0	0 1		0 0 1!	0 0	
Volume Module:												
Base Vol:	5	1244	109	85	1277	2	0	0	3	67	0	53
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	1244	109	85	1277	2	0	0	3	67	0	53
Added Vol:	18	942	42	19	1142	0	0	0	14	30	0	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	23	2186	151	104	2419	2	0	0	17	97	0	68
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.94	0.94	0.94	0.75	0.75	0.75	0.75	0.75	0.75
PHF Volume:	25	2415	167	111	2573	2	0	0	23	129	0	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	25	2415	167	111	2573	2	0	0	23	129	0	91
Critical Gap Module:												
Critical Gp:	4.2	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	6.2	7.1	6.5	6.2
FollowUpTim:	2.3	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	2576	xxxx	xxxxx	2582	xxxx	xxxxx	xxxx	xxxx	2574	5273	5263	2415
Potent Cap.:	158	xxxx	xxxxx	157	xxxx	xxxxx	xxxx	xxxx	33	0	0	42
Move Cap.:	158	xxxx	xxxxx	157	xxxx	xxxxx	xxxx	xxxx	33	0	0	42
Volume/Cap:	0.16	xxxx	xxxx	0.70	xxxx	xxxx	xxxx	xxxx	0.68	xxxx	0.00	2.17
Level Of Service Module:												
2Way95thQ:	0.6	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxx	xxxx	2.3	xxxx	xxxx	xxxxx
Control Del:	32.0	xxxx	xxxxx	69.2	xxxx	xxxxx	xxxxx	xxxx	237.8	xxxxx	xxxx	xxxxx
LOS by Move:	D	*	*	F	*	*	*	*	F	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	30.2	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			237.8			xxxxxx		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #13 Brentwood Blvd. @ Applewood Common

Cycle (sec):	100	Critical Vol./Cap.(X):	1.653
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Brentwood Blvd.						Applewood Common					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	20	1347	58	21	1312	16	13	0	17	48	3	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	20	1347	58	21	1312	16	13	0	17	48	3	19
Added Vol:	47	891	21	23	1112	52	77	0	70	31	0	34
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	67	2238	79	44	2424	68	90	0	87	79	3	53
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	67	2238	79	44	2424	68	90	0	87	79	3	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	67	2238	79	44	2424	68	90	0	87	79	3	53
RTOR Reduct:	0	0	79	0	0	0	0	0	0	0	0	0
RTOR Vol:	67	2238	0	44	2424	68	90	0	87	79	3	53
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	67	2238	0	44	2424	68	90	0	87	79	3	53
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.97	0.03	1.00	0.00	1.00	1.00	0.05	0.95
Final Sat.:	1650	1650	1650	1650	1605	45	1650	0	1650	1650	88	1562
Capacity Analysis Module:												
Vol/Sat:	0.04	1.36	0.00	0.03	1.51	1.51	0.05	0.00	0.05	0.05	0.03	0.03
Crit Volume:	67				2492		90			79		
Crit Moves:	****				****		****			****		

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #14 Brentwood Blvd. @ Sand Creek Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	1.278
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Brentwood Blvd.						Sand Creek Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	0	0	0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	187	877	0	0	878	176	270	0	231	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	187	877	0	0	878	176	270	0	231	0	0	0
Added Vol:	112	495	52	114	609	490	296	52	84	78	78	168
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	299	1372	52	114	1487	666	566	52	315	78	78	168
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	299	1372	52	114	1487	666	566	52	315	78	78	168
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	299	1372	52	114	1487	666	566	52	315	78	78	168
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	299	1372	52	114	1487	666	566	52	315	78	78	168
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	299	1372	52	114	1487	666	566	52	315	78	78	168
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.93	0.07	1.00	1.38	0.62	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1650	3179	121	1650	2279	1021	1650	1650	1650	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.18	0.43	0.43	0.07	0.65	0.65	0.34	0.03	0.19	0.05	0.05	0.10
Crit Volume:	299					1077	566					168
Crit Moves:	****					****	****					****

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #15 Brentwood Blvd. @ Technology Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.603	
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx	
Optimal Cycle:	47	Level Of Service:	B	

Street Name:	Brentwood Blvd.						Technology Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	6	6	0	6	6	4	4	4	0	0	0
Lanes:	1 0 2 0 0			0 0 1 1 0			1 0 0 0 1			0 0 0 0 0		
Volume Module:												
Base Vol:	39	1057	0	0	1029	19	20	0	47	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	39	1057	0	0	1029	19	20	0	47	0	0	0
Added Vol:	10	599	0	0	730	40	60	0	16	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	49	1656	0	0	1759	59	80	0	63	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	49	1656	0	0	1759	59	80	0	63	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	1656	0	0	1759	59	80	0	63	0	0	0
RTOR Reduct:	0	0	0	0	0	0	0	0	49	0	0	0
RTOR Vol:	49	1656	0	0	1759	59	80	0	14	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	49	1656	0	0	1759	59	80	0	14	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.94	0.06	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1720	3440	0	0	3328	112	1720	0	1720	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.48	0.00	0.00	0.53	0.53	0.05	0.00	0.01	0.00	0.00	0.00
Crit Volume:	49					909	80				0	
Crit Moves:	****					****	****					

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #16 Brentwood Blvd @ Nancy Street (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.672
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	B

Street Name:	Brentwood Blvd						Nancy Street (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	7	7	4	7	7	0	0	0	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	0	1037	58	74	1061	0	0	0	0	69	0	60
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1037	58	74	1061	0	0	0	0	69	0	60
Added Vol:	20	469	10	33	651	62	92	0	29	16	0	49
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	1506	68	107	1712	62	92	0	29	85	0	109
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	20	1506	68	107	1712	62	92	0	29	85	0	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	1506	68	107	1712	62	92	0	29	85	0	109
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	20	1506	68	107	1712	62	92	0	29	85	0	109
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	1506	68	107	1712	62	92	0	29	85	0	109
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.91	0.09	1.00	1.93	0.07	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1650	3157	143	1650	3185	115	1650	0	1650	1650	0	1650
Capacity Analysis Module:												
Vol/Sat:	0.01	0.48	0.48	0.06	0.54	0.54	0.06	0.00	0.02	0.05	0.00	0.07
Crit Volume:	20					887	92					109
Crit Moves:	****					****	****					****

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #17 Brentwood Blvd. @ Village Drive

Average Delay (sec/veh): 274.2 Worst Case Level Of Service: F[6239.4]

Street Name:	Brentwood Blvd.						Village Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	1080	46	18	1084	0	0	0	0	19	0	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1080	46	18	1084	0	0	0	0	19	0	17
Added Vol:	0	449	10	33	662	0	0	0	0	16	0	49
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1529	56	51	1746	0	0	0	0	35	0	66
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.91	0.91	0.91	1.00	1.00	1.00	0.60	0.60	0.60
PHF Volume:	0	1639	60	56	1910	0	0	0	0	58	0	110
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1639	60	56	1910	0	0	0	0	58	0	110
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1699	xxxx	xxxxx	xxxx	xxxx	xxxxx	3691	3691	1669
Potent Cap.:	xxxx	xxxx	xxxxx	354	xxxx	xxxxx	xxxx	xxxx	xxxxx	5	5	119
Move Cap.:	xxxx	xxxx	xxxxx	354	xxxx	xxxxx	xxxx	xxxx	xxxxx	5	4	119
Volume/Cap:	xxxx	xxxx	xxxx	0.16	xxxx	xxxx	xxxx	xxxx	xxxx	12.62	0.00	0.93
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.6	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	17.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	C	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	12	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	22.3	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	6239	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			6239.4		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #18 Brentwood Blvd. @ Central Blvd / Sycamore Ave (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.954
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Street Name:	Brentwood Blvd.						Central Blvd / Sycamore Ave (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	15	15	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	1	1 0	1 0	1	0	1 0	1	0 1
Volume Module:												
Base Vol:	50	804	81	126	722	191	195	101	42	47	83	103
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	804	81	126	722	191	195	101	42	47	83	103
Added Vol:	3	300	10	66	495	117	61	4	2	16	6	98
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	53	1104	91	192	1217	308	256	105	44	63	89	201
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	53	1104	91	192	1217	308	256	105	44	63	89	201
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	1104	91	192	1217	308	256	105	44	63	89	201
RTOR Reduct:	0	0	63	0	0	0	0	0	0	0	0	192
RTOR Vol:	53	1104	28	192	1217	308	256	105	44	63	89	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	53	1104	28	192	1217	308	256	105	44	63	89	9
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.60	0.40	1.00	1.41	0.59	1.00	1.00	1.00
Final Sat.:	1720	1720	1720	1720	2745	695	1720	2424	1016	1720	1720	1720
Capacity Analysis Module:												
Vol/Sat:	0.03	0.64	0.02	0.11	0.44	0.44	0.15	0.04	0.04	0.04	0.05	0.01
Crit Volume:		1104		192			256				89	
Crit Moves:		****		****			****				****	

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #20 Central Street @ Second Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.295	
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx	
Optimal Cycle:	34	Level Of Service:	A	

Street Name:	Second Street						Central Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ignore		
Min. Green:	5	5	5	5	5	5	5	7	7	5	7	7
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	128	279	71	56	219	1	11	252	88	47	318	72
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	128	279	71	56	219	1	11	252	88	47	318	72
Added Vol:	0	19	0	0	28	21	14	68	0	0	126	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	128	298	71	56	247	22	25	320	88	47	444	72
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	128	298	71	56	247	22	25	320	88	47	444	72
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	128	298	71	56	247	22	25	320	88	47	444	72
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	128	298	71	56	247	22	25	320	88	47	444	72
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	128	298	71	56	247	22	25	320	88	47	444	72
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.62	0.38	1.00	1.84	0.16	1.00	1.57	0.43	1.00	2.00	1.00
Final Sat.:	1650	2665	635	1650	3030	270	1650	2588	712	1650	3300	1650
Capacity Analysis Module:												
Vol/Sat:	0.08	0.11	0.11	0.03	0.08	0.08	0.02	0.12	0.12	0.03	0.13	0.04
Crit Volume:			184	56			25			222		
Crit Moves:			****	****			****			****		

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #21 Central Blvd @ Walnut Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.305
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Street Name:	Walnut Blvd						Central Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	5	7	7	5	7	7	5	7	7	5	7	7
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	52	0	235	7	5	2	2	418	21	157	416	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	52	0	235	7	5	2	2	418	21	157	416	1
Added Vol:	0	0	3	0	0	0	0	78	0	5	143	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	52	0	238	7	5	2	2	496	21	162	559	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	52	0	238	7	5	2	2	496	21	162	559	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	0	238	7	5	2	2	496	21	162	559	1
RTOR Reduct:	0	0	162	0	0	0	0	0	0	0	0	0
RTOR Vol:	52	0	76	7	5	2	2	496	21	162	559	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	52	0	76	7	5	2	2	496	21	162	559	1
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.71	0.29	1.00	1.92	0.08	1.00	1.99	0.01
Final Sat.:	1650	1650	1650	1650	1179	471	1650	3166	134	1650	3294	6
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.05	0.00	0.00	0.00	0.00	0.16	0.16	0.10	0.17	0.17
Crit Volume:			76	7					259	162		
Crit Moves:			****	****					****	****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #22 Brentwood Blvd @ Pine Street

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: E[41.3]

Street Name:	Brentwood Blvd						Pine Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1	1 0		0 1	1 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	885	24	16	832	0	0	0	0	13	0	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	885	24	16	832	0	0	0	0	13	0	22
Added Vol:	0	282	0	0	513	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1167	24	16	1345	0	0	0	0	13	0	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1167	24	16	1345	0	0	0	0	13	0	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1167	24	16	1345	0	0	0	0	13	0	22
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1191	xxxx	xxxxx	xxxx	xxxx	xxxxx	1884	2556	596
Potent Cap.:	xxxx	xxxx	xxxxx	539	xxxx	xxxxx	xxxx	xxxx	xxxxx	62	26	447
Move Cap.:	xxxx	xxxx	xxxxx	539	xxxx	xxxxx	xxxx	xxxx	xxxxx	61	25	447
Volume/Cap:	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.21	0.00	0.05
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	11.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	134	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.0	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	11.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	41.3	xxxxx
Shared LOS:	*	*	*	B	*	*	*	*	*	*	E	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			41.3		
ApproachLOS:	*			*			*			E		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #23 Brentwood Blvd @ Maple Street

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: B[13.6]

Street Name:	Brentwood Blvd						Maple Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1 0	1	0	0 1 0	1	0	0 0 0	0	0	0 0 0	0	1
Volume Module:												
Base Vol:	0	853	15	29	817	0	0	0	0	0	0	45
Growth Adj:	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00
Initial Bse:	0	853	15	29	817	0	0	0	0	0	0	45
Added Vol:	0	282	0	0	513	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1135	15	29	1330	0	0	0	0	0	0	45
User Adj:	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00
PHF Adj:	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	1.00
PHF Volume:	0	1135	15	29	1330	0	0	0	0	0	0	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1135	15	29	1330	0	0	0	0	0	0	45
Critical Gap Module:												
Critical Gp:	xxxxx xxxx xxxxx		4.3	xxxx xxxxx xxxxx			xxxx xxxxx xxxxx			xxxx xxxx		6.9
FollowUpTim:	xxxxx xxxx xxxxx		2.3	xxxx xxxxx xxxxx			xxxx xxxxx xxxxx			xxxx xxxx		3.3
Capacity Module:												
Cnflict Vol:	xxxx xxxx xxxxx		1150	xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx		575
Potent Cap.:	xxxx xxxx xxxxx		560	xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx		461
Move Cap.:	xxxx xxxx xxxxx		560	xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx		461
Volume/Cap:	xxxx xxxx	xxxx	0.05	xxxx	xxxx		xxxx xxxx	xxxx		xxxx xxxx		0.10
Level Of Service Module:												
2Way95thQ:	xxxx xxxx xxxxx		0.2	xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx		0.3
Control Del:	xxxxx xxxx xxxxx		11.8	xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx xxxx		13.6
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	B
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx xxxxx		
SharedQueue:	0.0 xxxx xxxxx			0.2 xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx xxxx xxxxx		
Shrd ConDel:	9.0 xxxx xxxxx			11.8 xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx xxxx xxxxx		
Shared LOS:	A	*	*	B	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			13.6		
ApproachLOS:	*			*			*			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #24 Brentwood Blvd @ Oak Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.707
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	78	Level Of Service:	C

Street Name:	Brentwood Blvd.						Oak St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 1	0 1	0	1 0	1 0	1
Volume Module:												
Base Vol:	103	611	89	30	620	185	276	193	65	82	181	26
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	103	611	89	30	620	185	276	193	65	82	181	26
Added Vol:	0	207	0	0	375	138	75	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	103	818	89	30	995	323	351	193	65	82	181	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	103	818	89	30	995	323	351	193	65	82	181	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	818	89	30	995	323	351	193	65	82	181	26
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	26
RTOR Vol:	103	818	89	30	995	323	351	193	65	82	181	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	103	818	89	30	995	323	351	193	65	82	181	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.80	0.20	1.00	1.51	0.49	1.73	0.95	0.32	1.00	1.00	1.00
Final Sat.:	1650	2976	324	1650	2491	809	2599	1564	526	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.06	0.27	0.27	0.02	0.40	0.40	0.14	0.12	0.12	0.05	0.11	0.00
Crit Volume:	103					659	203				181	
Crit Moves:	****					****	****				****	

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #25 Walnut Blvd @ Oak St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.546
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	A

Street Name:	Walnut Blvd						Oak St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	5	7	7	0	7	7	5	5	5	5	5	5
Lanes:	1 0	1 0	1	1 0	0 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	12	286	360	152	156	10	4	6	6	297	9	188
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	286	360	152	156	10	4	6	6	297	9	188
Added Vol:	0	3	75	0	5	0	0	0	0	138	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	289	435	152	161	10	4	6	6	435	9	188
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	12	289	435	152	161	10	4	6	6	435	9	188
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	289	435	152	161	10	4	6	6	435	9	188
RTOR Reduct:	0	0	435	0	0	0	0	0	0	0	0	152
RTOR Vol:	12	289	0	152	161	10	4	6	6	435	9	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	12	289	0	152	161	10	4	6	6	435	9	36
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.94	0.06	0.25	0.37	0.38	0.98	0.02	1.00
Final Sat.:	1650	1650	1650	1650	1554	96	413	619	619	1617	33	1650
Capacity Analysis Module:												
Vol/Sat:	0.01	0.18	0.00	0.09	0.10	0.10	0.01	0.01	0.01	0.27	0.27	0.02
Crit Volume:		289		152				16			444	
Crit Moves:		****		****				****			****	

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #26 Brentwood Blvd. @ Second St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.576
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	A

Street Name:	Brentwood Blvd.						Second St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	137	766	2	217	737	41	53	244	91	22	227	161
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	137	766	2	217	737	41	53	244	91	22	227	161
Added Vol:	19	263	0	0	485	0	0	0	28	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	156	1029	2	217	1222	41	53	244	119	22	227	161
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	156	1029	2	217	1222	41	53	244	119	22	227	161
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	156	1029	2	217	1222	41	53	244	119	22	227	161
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	161
RTOR Vol:	156	1029	2	217	1222	41	53	244	119	22	227	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	156	1029	2	217	1222	41	53	244	119	22	227	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	1.94	0.06	1.00	1.34	0.66	1.00	2.00	1.00
Final Sat.:	1720	3433	7	1720	3328	112	1720	2312	1128	1720	3440	1720
Capacity Analysis Module:												
Vol/Sat:	0.09	0.30	0.30	0.13	0.37	0.37	0.03	0.11	0.11	0.01	0.07	0.00
Crit Volume:	156				632			182		22		
Crit Moves:	****				****			****		****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #27 Brentwood Blvd. @ Chestnut St.

Average Delay (sec/veh): 3.8 Worst Case Level Of Service: F[150.3]

Street Name:	Brentwood Blvd.						Chestnut St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	771	39	26	756	0	0	0	0	35	0	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	771	39	26	756	0	0	0	0	35	0	19
Added Vol:	0	207	0	0	375	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	978	39	26	1131	0	0	0	0	35	0	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	978	39	26	1131	0	0	0	0	35	0	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	978	39	26	1131	0	0	0	0	35	0	19
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1017	xxxx	xxxxx	xxxx	xxxx	xxxxx	2181	2181	998
Potent Cap.:	xxxx	xxxx	xxxxx	652	xxxx	xxxxx	xxxx	xxxx	xxxxx	51	46	296
Move Cap.:	xxxx	xxxx	xxxxx	652	xxxx	xxxxx	xxxx	xxxx	xxxxx	49	44	296
Volume/Cap:	xxxx	xxxx	xxxx	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	0.71	0.00	0.06
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	10.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	69	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	3.6	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	10.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	150	xxxxx
Shared LOS:	*	*	*	B	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			150.3		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #28 Brentwood Blvd. @ Balfour Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.902
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Street Name:	Brentwood Blvd.						Balfour Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	8	10	10	6	10	10	5	5	5	4	5	5
Lanes:	1 0 2 0 1			1 0 2 0 1			1 0 1 0 1			1 0 1 1 0		
Volume Module:												
Base Vol:	475	443	51	134	430	228	275	556	484	66	386	144
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	475	443	51	134	430	228	275	556	484	66	386	144
Added Vol:	0	183	5	40	335	0	0	0	0	8	0	24
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	475	626	56	174	765	228	275	556	484	74	386	168
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	475	626	56	174	765	228	275	556	484	74	386	168
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	475	626	56	174	765	228	275	556	484	74	386	168
RTOR Reduct:	0	0	0	0	0	228	0	0	475	0	0	0
RTOR Vol:	475	626	56	174	765	0	275	556	9	74	386	168
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	475	626	56	174	765	0	275	556	9	74	386	168
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.39	0.61
Final Sat.:	1650	3300	1650	1650	3300	1650	1650	1650	1650	1650	2299	1001
Capacity Analysis Module:												
Vol/Sat:	0.29	0.19	0.03	0.11	0.23	0.00	0.17	0.34	0.01	0.04	0.17	0.17
Crit Volume:	475				383			556		74		
Crit Moves:	****				****			****		****		

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #29 Sellers Ave. @ Sunet Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.547
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.5
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Sellers Ave.						Sunset Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	94	236	14	21	175	39	50	91	69	7	77	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	94	236	14	21	175	39	50	91	69	7	77	30
Added Vol:	6	1	0	0	4	21	31	0	11	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	100	237	14	21	179	60	81	91	80	7	77	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	100	237	14	21	179	60	81	91	80	7	77	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	237	14	21	179	60	81	91	80	7	77	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	100	237	14	21	179	60	81	91	80	7	77	30
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.28	0.68	0.04	0.08	0.69	0.23	0.32	0.36	0.32	0.06	0.68	0.26
Final Sat.:	183	434	26	51	435	146	193	216	190	34	369	144
Capacity Analysis Module:												
Vol/Sat:	0.55	0.55	0.55	0.41	0.41	0.41	0.42	0.42	0.42	0.21	0.21	0.21
Crit Moves:	****			****					****	****		
Delay/Veh:	14.1	14.1	14.1	11.7	11.7	11.7	12.1	12.1	12.1	10.1	10.1	10.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	14.1	14.1	14.1	11.7	11.7	11.7	12.1	12.1	12.1	10.1	10.1	10.1
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	B
ApproachDel:	14.1			11.7			12.1			10.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	14.1			11.7			12.1			10.1		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	1.0	1.0	1.0	0.6	0.6	0.6	0.6	0.6	0.6	0.2	0.2	0.2

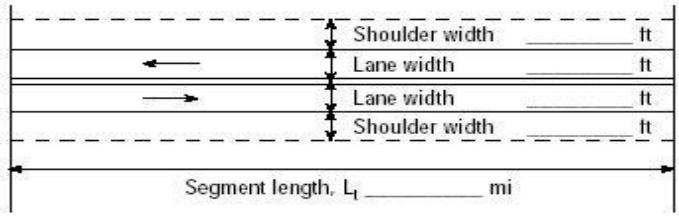
Note: Queue reported is the number of cars per lane.

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Brentwood Blvd.*
Agency or Company		From/To	*E Sims Rd. and Delta Rd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing+AP+PP*

Project Description:

Input Data



☑ Class I highway ☐ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*2623* veh/h
Directional split	*55 / 45*
Peak-hour factor, PHF	*0.92*
No-passing zone	*100*
% Trucks and Buses , P_T	*10* %
% Recreational vehicles, P_R	*0*%
Access points/ *mi*	*20*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*2880*
v_p * highest directional split proportion[2] (pc/h)	*1584*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*40 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*40.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.9*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*16.8*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*2851*
v_p * highest directional split proportion[2] (pc/h)	*1568*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*91.8*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*2.1*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*93.9*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*E*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.90*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*214*

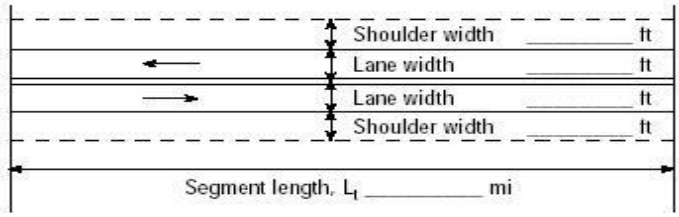
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*787*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*12.7*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Brentwood Blvd.*
Agency or Company		From/To	*E Sims Rd. and Delta Rd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing+AP+PP*

Project Description:

Input Data



☑ Class I highway ☐ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*3144* veh/h
Directional split	*51 / 49*
Peak-hour factor, PHF	*0.96*
No-passing zone	*100*
% Trucks and Buses , P_T	*10 %*
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*20*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*3308*
v_p * highest directional split proportion[2] (pc/h)	*1687*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*40 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*40.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*3275*
v_p * highest directional split proportion[2] (pc/h)	*1670*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*94.4*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*1.5*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*95.9*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	
Volume to capacity ratio, $v/c=V_p/3{,}200$	*1.03*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*246*

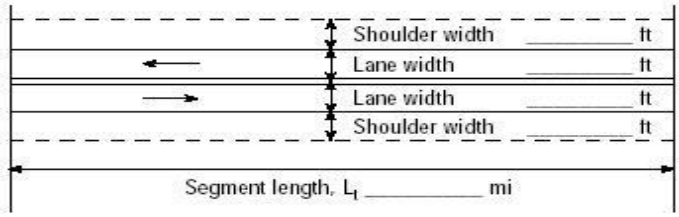
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*943*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Brentwood Blvd.*
Agency or Company		From/To	*Grant St. to Sunset Ct.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing+AP+PP*

Project Description:

Input Data



☑ Class I highway ☐ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*3930* veh/h
Directional split	*55 / 45*
Peak-hour factor, PHF	*0.97*
No-passing zone	*100*
% Trucks and Buses , P_T	*10* %
% Recreational vehicles, P_R	*0*%
Access points/ *mi*	*10*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*4092*
v_p * highest directional split proportion[2] (pc/h)	*2251*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*4052*
v_p * highest directional split proportion[2] (pc/h)	*2229*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*97.2*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*1.8*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*99.0*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	
Volume to capacity ratio, $v/c=V_p/3{,}200$	*1.28*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*101*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*393*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

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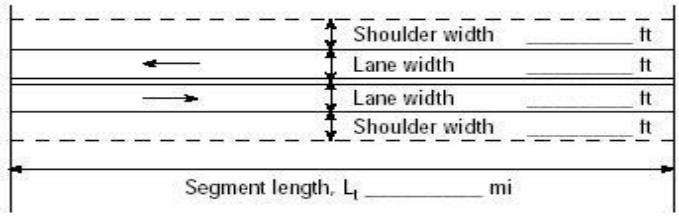
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Brentwood Blvd.*
Agency or Company		From/To	*Grant St. to Sunset Ct.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing+AP+PP*

Project Description:

Input Data



☑ Class I highway ☐ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*4666* veh/h
Directional split	*53 / 47*
Peak-hour factor, PHF	*0.90*
No-passing zone	*100*
% Trucks and Buses , P_T	*10* %
% Recreational vehicles, P_R	*0*%
Access points/ *mi*	*10*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*5236*
v_p * highest directional split proportion[2] (pc/h)	*2775*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*5184*
v_p * highest directional split proportion[2] (pc/h)	*2748*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*99.0*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*1.6*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*100.6*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	
Volume to capacity ratio, $v/c=V_p/3{,}200$	*1.64*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*130*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*467*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

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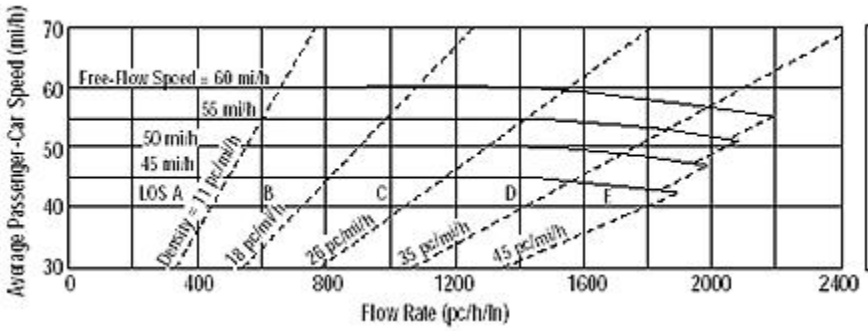
MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Central Blvd. to Spruce S
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	1167	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

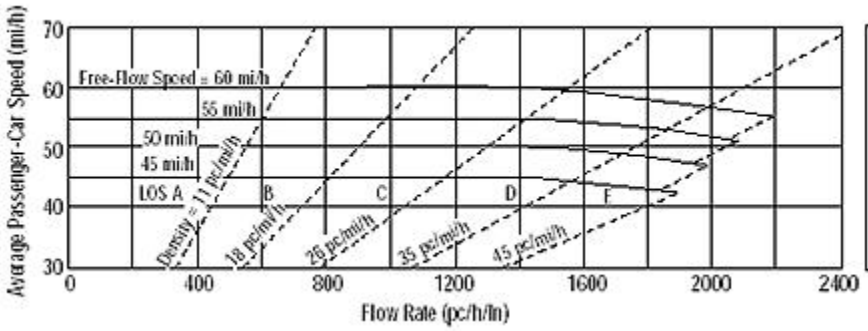
Flow Rate, v_p (pc/h/ln)	680
Speed, S (mi/h)	45.0
D (pc/mi/ln)	15.1
LOS	B

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Central Blvd. to Spruce S
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	1012	Peak-Hour Factor, PHF	0.95
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

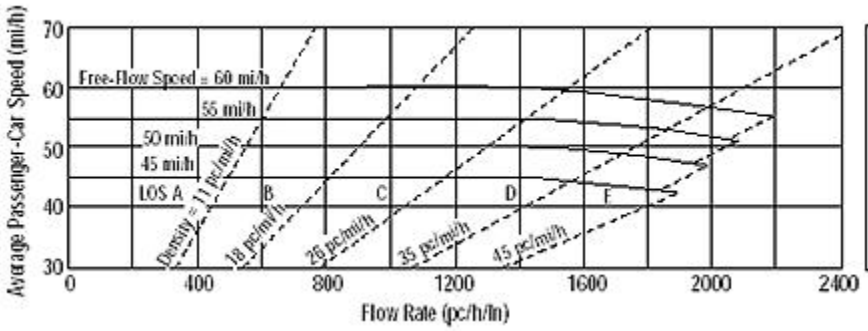
Flow Rate, v_p (pc/h/ln)	559
Speed, S (mi/h)	45.0
D (pc/mi/ln)	12.4
LOS	B

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Central Blvd. to Spruce S
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	1248	Peak-Hour Factor, PHF	0.78
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

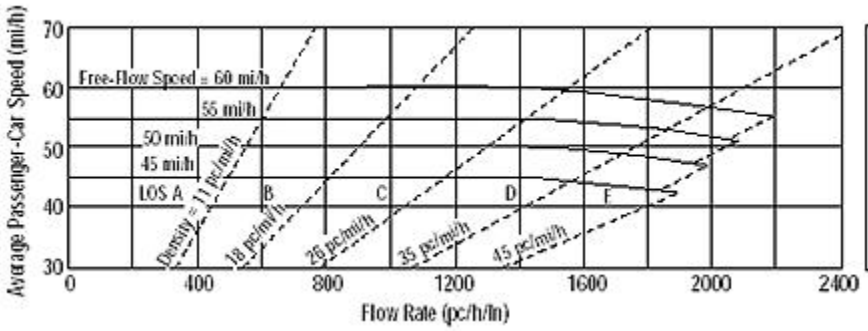
Flow Rate, v_p (pc/h/ln)	840
Speed, S (mi/h)	45.0
D (pc/mi/ln)	18.7
LOS	C

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Central Blvd. to Spruce S
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	1480	Peak-Hour Factor, PHF	0.99
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

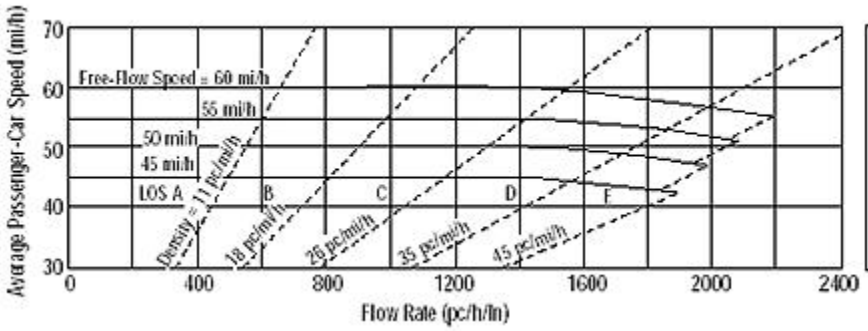
Flow Rate, v_p (pc/h/ln)	784
Speed, S (mi/h)	45.0
D (pc/mi/ln)	17.4
LOS	B

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Pine Ave. to Oak Ave.
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	1144	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

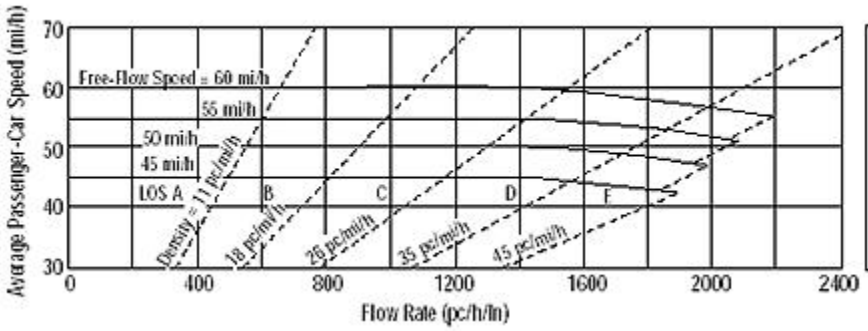
Flow Rate, v_p (pc/h/ln)	667
Speed, S (mi/h)	45.0
D (pc/mi/ln)	14.8
LOS	B

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Pine Ave. to Oak Ave.
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	876	Peak-Hour Factor, PHF	0.88
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

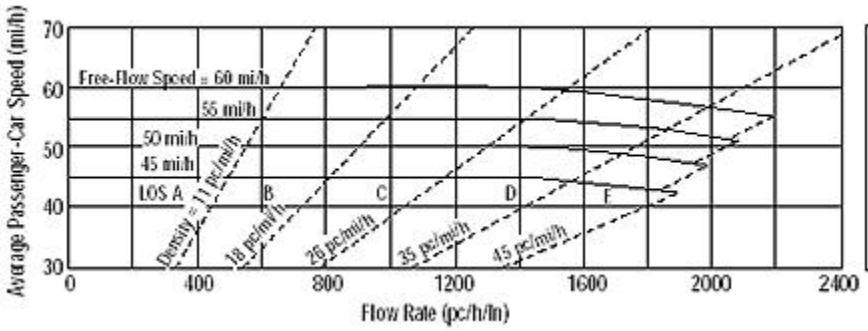
Flow Rate, v_p (pc/h/ln)	522
Speed, S (mi/h)	45.0
D (pc/mi/ln)	11.6
LOS	B

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Pine Ave. to Oak Ave.
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	1186	Peak-Hour Factor, PHF	0.97
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

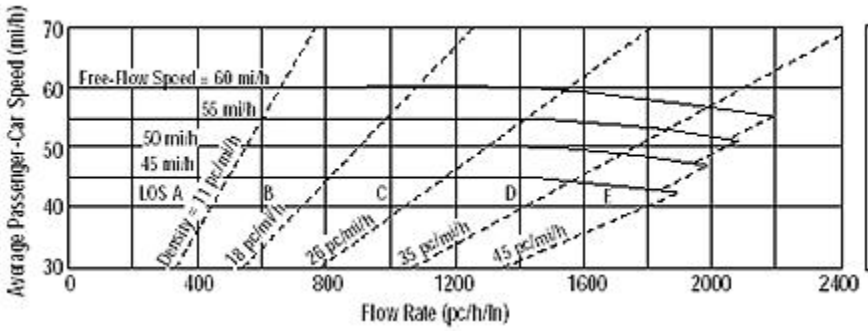
Flow Rate, v_p (pc/h/ln)	641
Speed, S (mi/h)	45.0
D (pc/mi/ln)	14.2
LOS	B

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Pine Ave. to Oak Ave.
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	1353	Peak-Hour Factor, PHF	0.97
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	732
Speed, S (mi/h)	45.0
D (pc/mi/ln)	16.3
LOS	B

Design

Design (N)

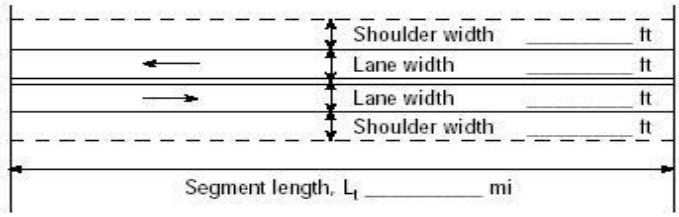
Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Delta Rd.*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing+AP+PP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*505* veh/h
Directional split	*54 / 46*
Peak-hour factor, PHF	*0.76*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*40*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*667*
v_p * highest directional split proportion[2] (pc/h)	*360*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*50 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*50.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*44.8*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*666*
v_p * highest directional split proportion[2] (pc/h)	*360*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*44.3*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*44.3*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.21*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*166*

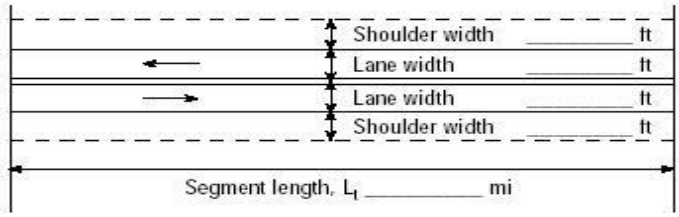
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*505*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*3.7*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Delta Rd.*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing+AP+PP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*810* veh/h
Directional split	*73 / 27*
Peak-hour factor, PHF	*0.91*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*40*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*894*
v_p * highest directional split proportion[2] (pc/h)	*653*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*50 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*50.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*43.1*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*892*
v_p * highest directional split proportion[2] (pc/h)	*651*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*54.3*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*54.3*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.28*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*223*

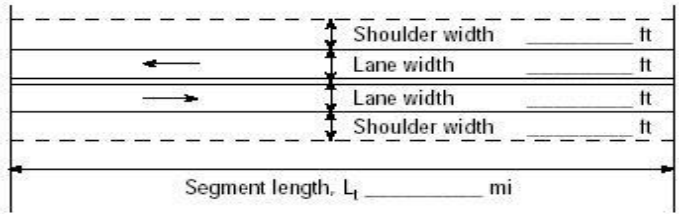
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*810*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*5.2*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Lone Tree Wy.*
Agency or Company		From/To	*West of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing+AP+PP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*1774* veh/h
Directional split	*53 / 47*
Peak-hour factor, PHF	*0.92*
No-passing zone	*100*
% Trucks and Buses , P_T	*2 %*
% Recreational vehicles, P_R	*4%*
Access points/ *mi*	*30*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1932*
v_p * highest directional split proportion[2] (pc/h)	*1024*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*35 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*35.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.2*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*18.8*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1928*
v_p * highest directional split proportion[2] (pc/h)	*1022*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*81.6*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*4.8*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*86.4*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*E*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.60*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*482*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*1774*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*25.6*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Lone Tree Wy.*
Agency or Company		From/To	*West of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing+AP+PP*

Project Description:

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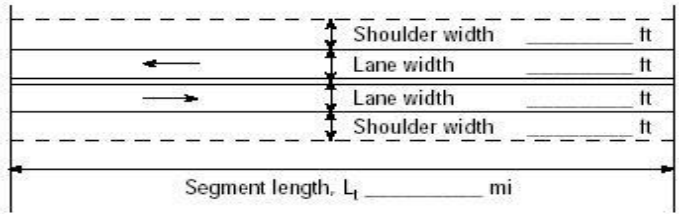

☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*1763* veh/h
Directional split	*59 / 41*
Peak-hour factor, PHF	*0.92*
No-passing zone	*100*
% Trucks and Buses , P_T	*2 %*
% Recreational vehicles, P_R	*4%*
Access points/ *mi*	*30*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1920*
v_p * highest directional split proportion[2] (pc/h)	*1133*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*35 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*35.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.2*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*18.9*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1916*
v_p * highest directional split proportion[2] (pc/h)	*1130*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*81.4*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*4.8*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*86.3*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*E*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.60*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*479*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*1763*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*25.3*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Sunset Ave*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing+AP+PP*

Project Description:

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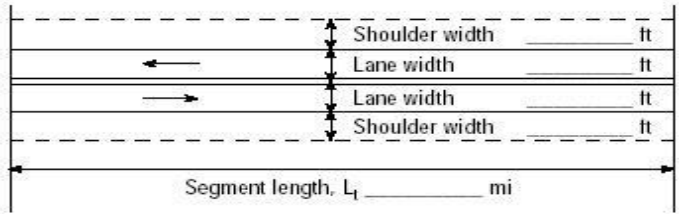


☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*778* veh/h
Directional split	*67 / 33*
Peak-hour factor, PHF	*0.88*
No-passing zone	*100*
% Trucks and Buses , P_T	*2 %*
% Recreational vehicles, P_R	*4%*
Access points/ *mi*	*20*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*888*
v_p * highest directional split proportion[2] (pc/h)	*595*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*2.8*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*20.3*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*886*
v_p * highest directional split proportion[2] (pc/h)	*594*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*54.1*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*13.6*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*67.7*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.28*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*221*

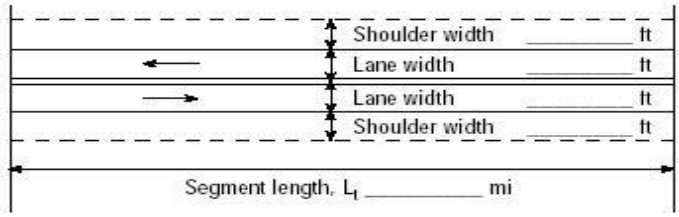
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*778*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*10.9*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Sunset Ave*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing+AP+PP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*889* veh/h
Directional split	*50 / 50*
Peak-hour factor, PHF	*0.88*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*20*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1014*
v_p * highest directional split proportion[2] (pc/h)	*507*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*2.6*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*19.6*

Percent Time-Spent-Following

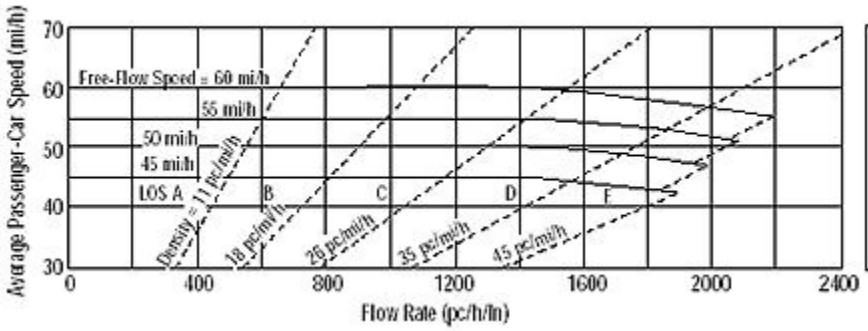
Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1012*
v_p * highest directional split proportion[2] (pc/h)	*506*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*58.9*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*12.8*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*71.7*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*D*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.32*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*253*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*889*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*12.9*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Central Blvd.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	363	Peak-Hour Factor, PHF	0.86
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

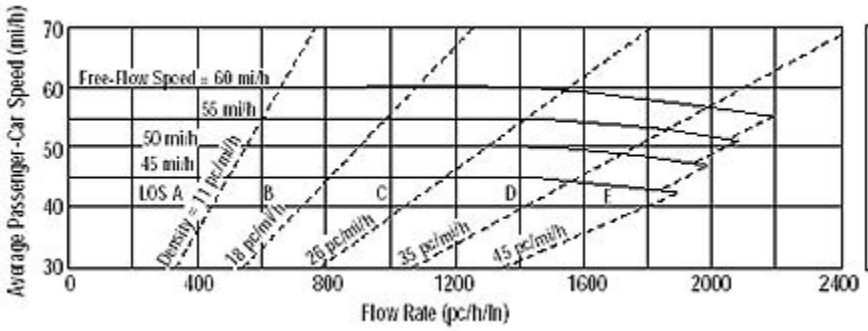
Flow Rate, v_p (pc/h/ln)	213
Speed, S (mi/h)	45.0
D (pc/mi/ln)	4.7
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Central Blvd.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	420	Peak-Hour Factor, PHF	0.88
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

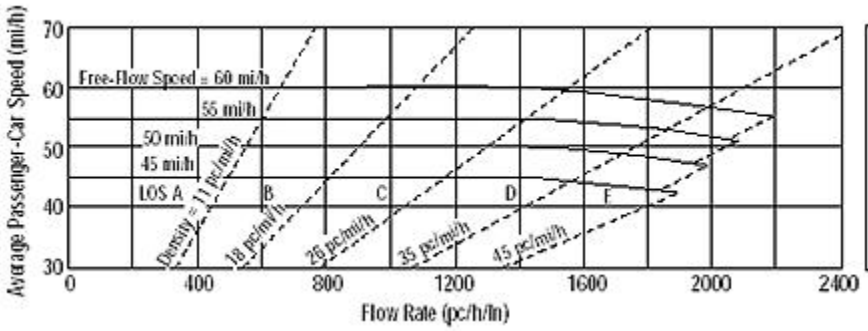
Flow Rate, v_p (pc/h/ln)	241
Speed, S (mi/h)	45.0
D (pc/mi/ln)	5.4
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Central Blvd.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	405	Peak-Hour Factor, PHF	0.84
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

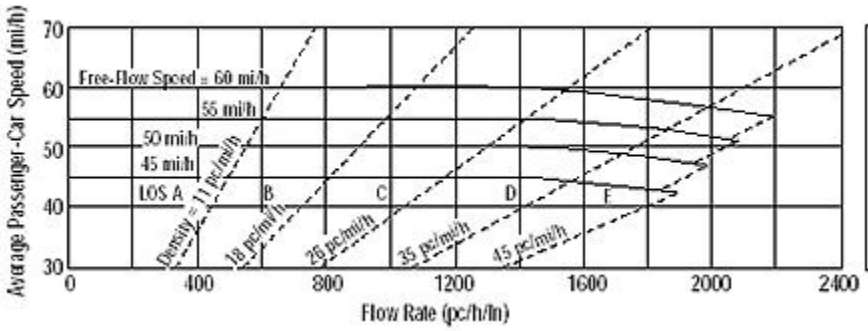
Flow Rate, v_p (pc/h/ln)	243
Speed, S (mi/h)	45.0
D (pc/mi/ln)	5.4
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Central Blvd.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	563	Peak-Hour Factor, PHF	0.76
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	374
Speed, S (mi/h)	45.0
D (pc/mi/ln)	8.3
LOS	A

Design

Design (N)

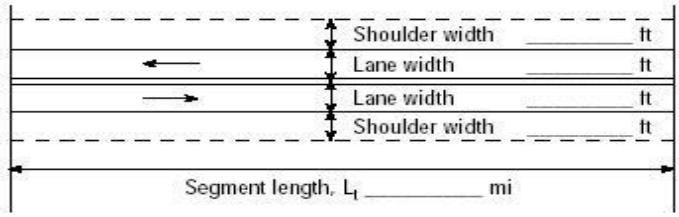
Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Grant St.*
Agency or Company		From/To	*West of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing+AP+PP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*547* veh/h
Directional split	*55 / 45*
Peak-hour factor, PHF	*0.71*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*7*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*774*
v_p * highest directional split proportion[2] (pc/h)	*426*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*3.1*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*20.9*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*772*
v_p * highest directional split proportion[2] (pc/h)	*425*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*49.3*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*15.7*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*65.0*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.24*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*193*

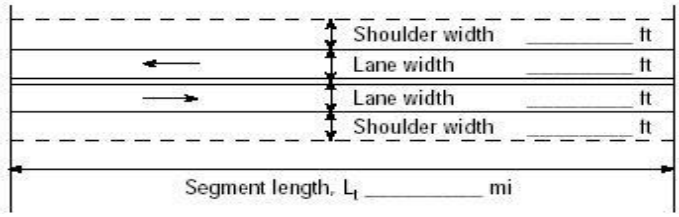
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*547*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*9.2*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Grant St.*
Agency or Company		From/To	*West of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing+AP+PP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*525* veh/h
Directional split	*55 / 45*
Peak-hour factor, PHF	*0.87*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*7*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*606*
v_p * highest directional split proportion[2] (pc/h)	*333*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*3.9*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*21.4*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*605*
v_p * highest directional split proportion[2] (pc/h)	*333*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*41.2*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*20.5*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*61.7*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.19*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*151*

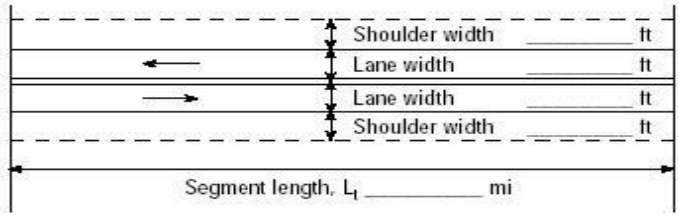
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*525*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*7.0*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Sycamore Ave.*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing+AP+PP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*689* veh/h
Directional split	*58 / 42*
Peak-hour factor, PHF	*0.87*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*35*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*795*
v_p * highest directional split proportion[2] (pc/h)	*461*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*3.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*20.8*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*794*
v_p * highest directional split proportion[2] (pc/h)	*461*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*50.2*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*14.8*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*65.0*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.25*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*99*

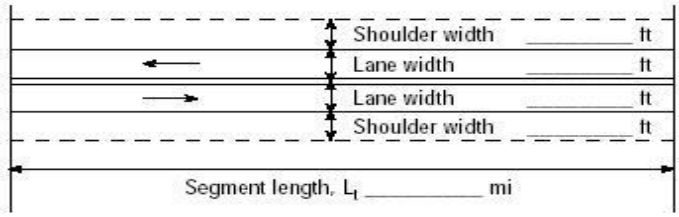
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*345*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*4.8*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Sycamore Ave.*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing+AP+PP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*741* veh/h
Directional split	*52 / 48*
Peak-hour factor, PHF	*0.82*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*35*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*907*
v_p * highest directional split proportion[2] (pc/h)	*472*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*2.8*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*20.2*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*905*
v_p * highest directional split proportion[2] (pc/h)	*471*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*54.9*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*13.9*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*68.8*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.28*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*113*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*371*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*5.6*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

Appendix D:

Analysis Worksheets for Cumulative Conditions

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Brentwood Blvd. @ Delta Road

Average Delay (sec/veh): 260.7 Worst Case Level Of Service: F[1014.1]

Street Name:	Brentwood Blvd.								Delta Rd.							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	1!	0	0	1	0	0	1	0	0	0	1!	0	0	0	0	1!	0	0
Volume Module:																				
Base Vol:	88	145		95		128	505		151		38		25		77	228		68		113
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	88	145		95		128	505		151		38		25		77	228		68		113
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	88	145		95		128	505		151		38		25		77	228		68		113
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
FinalVolume:	88	145		95		128	505		151		38		25		77	228		68		113
Critical Gap Module:																				
Critical Gp:	4.2	xxxx	xxxxx			4.2	xxxx	xxxxx			7.1		6.5		6.2	7.1		6.5		6.2
FollowUpTim:	2.3	xxxx	xxxxx			2.3	xxxx	xxxxx			3.5		4.0		3.3	3.5		4.0		3.3
Capacity Module:																				
Cnflict Vol:	656	xxxx	xxxxx			240	xxxx	xxxxx			1296		1253		581	1256		1281		193
Potent Cap.:	894	xxxx	xxxxx			1281	xxxx	xxxxx			139		172		514	148		166		849
Move Cap.:	894	xxxx	xxxxx			1281	xxxx	xxxxx			63		139		514	93		134		849
Volume/Cap:	0.10	xxxx	xxxx			0.10	xxxx	xxxx			0.61		0.18		0.15	2.45		0.51		0.13
Level Of Service Module:																				
2Way95thQ:	0.3	xxxx	xxxxx			0.3	xxxx	xxxxx			xxxx		xxxx		xxxxx	xxxx		xxxx		xxxxx
Control Del:	9.5	xxxx	xxxxx			8.1	xxxx	xxxxx			xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
LOS by Move:	A	*		*		A	*		*		*		*		*	*		*		*
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx		149		xxxxx	xxxx		132		xxxxx
SharedQueue:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx		6.7		xxxxx	xxxxx		38.6		xxxxx
Shrd ConDel:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx		117		xxxxx	xxxxx		1014		xxxxx
Shared LOS:	*	*		*		*	*		*		*		F		*	*		F		*
ApproachDel:	xxxxxx					xxxxxx					116.7					1014.1				
ApproachLOS:	*					*					F					F				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 Sellers Ave @ Delta

Cycle (sec):	100	Critical Vol./Cap.(X):	0.506
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.0
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Sellers Ave.						Delta Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	45	127	70	6	99	18	22	129	102	145	162	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	127	70	6	99	18	22	129	102	145	162	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	45	127	70	6	99	18	22	129	102	145	162	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	127	70	6	99	18	22	129	102	145	162	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	127	70	6	99	18	22	129	102	145	162	16
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.19	0.52	0.29	0.05	0.80	0.15	0.09	0.51	0.40	0.45	0.50	0.05
Final Sat.:	111	313	172	27	441	80	56	330	261	287	320	32
Capacity Analysis Module:												
Vol/Sat:	0.41	0.41	0.41	0.22	0.22	0.22	0.39	0.39	0.39	0.51	0.51	0.51
Crit Moves:	****					****		****			****	
Delay/Veh:	12.0	12.0	12.0	10.4	10.4	10.4	11.2	11.2	11.2	13.3	13.3	13.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.0	12.0	12.0	10.4	10.4	10.4	11.2	11.2	11.2	13.3	13.3	13.3
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	B
ApproachDel:	12.0			10.4			11.2			13.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.0			10.4			11.2			13.3		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	0.6	0.6	0.6	0.2	0.2	0.2	0.5	0.5	0.5	0.9	0.9	0.9

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Brentwood Blvd. @ E. Sims Road

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: E[35.4]

Street Name:	Brentwood Blvd.						E. Sims Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	740	32	30	754	0	0	0	0	31	0	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	740	32	30	754	0	0	0	0	31	0	25
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	740	32	30	754	0	0	0	0	31	0	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	740	32	30	754	0	0	0	0	31	0	25
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	772	xxxx	xxxxx	xxxx	xxxx	xxxxx	1570	1570	756
Potent Cap.:	xxxx	xxxx	xxxxx	808	xxxx	xxxxx	xxxx	xxxx	xxxxx	122	111	408
Move Cap.:	xxxx	xxxx	xxxxx	808	xxxx	xxxxx	xxxx	xxxx	xxxxx	118	106	408
Volume/Cap:	xxxx	xxxx	xxxx	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	0.26	0.00	0.06
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	9.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	173	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.3	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	9.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	35.4	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	E	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			35.4		
ApproachLOS:	*			*			*			E		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #4 Brentwood Blvd @ Lone Tree Way (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.854
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	156	Level Of Service:	D

Street Name:	Brentwood Blvd						Lone Tree Way (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	1 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	580	491	74	42	416	329	375	56	616	14	11	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	580	491	74	42	416	329	375	56	616	14	11	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	580	491	74	42	416	329	375	56	616	14	11	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	580	491	74	42	416	329	375	56	616	14	11	10
RTOR Reduct:	0	0	14	0	0	0	0	0	580	0	0	10
RTOR Vol:	580	491	60	42	416	329	375	56	36	14	11	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	580	491	60	42	416	329	375	56	36	14	11	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.12	0.88	0.87	0.13	1.00	0.56	0.44	1.00
Final Sat.:	1650	1650	1650	1650	1843	1457	1436	214	1650	924	726	1650
Capacity Analysis Module:												
Vol/Sat:	0.35	0.30	0.04	0.03	0.23	0.23	0.26	0.26	0.02	0.02	0.02	0.00
Crit Volume:	580				373			431			25	
Crit Moves:	****				****			****			****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Arroyo Seco Road @ Lone Tree Way

Average Delay (sec/veh): 3.1 Worst Case Level Of Service: F[3605.0]

Street Name:	Arroyo Seco Road									Lone Tree Way								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	1	1	0	1	0
Volume Module:																				
Base Vol:	59	0	2	0	0	0	0	6	110	0	2	0								
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
Initial Bse:	59	0	2	0	0	0	0	6	110	0	2	0								
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
PHF Volume:	59	0	2	0	0	0	0	6	110	0	2	0								
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
FinalVolume:	59	0	2	0	0	0	0	6	110	0	2	0								
Critical Gap Module:																				
Critical Gp:	6.4	6.5	6.2	7.1	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
Capacity Module:																				
Cnflict Vol:	62	63	61	64	118	1	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Potent Cap.:	944	828	1004	930	772	1084	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Move Cap.:	944	828	1004	928	772	1084	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Volume/Cap:	0.06	0.00	0.00	0.00	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx								
Level Of Service Module:																				
2Way95thQ:	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Control Del:	9.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*								
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	1004	xxxx	xxxx	0	xxxx	xxxx	xxxxx	1	xxxx	xxxxx								
SharedQueue:	xxxxx	xxxx	0.0	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx								
Shrd ConDel:	xxxxx	xxxx	8.6	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3605	xxxx	xxxxx								
Shared LOS:	*	*	A	*	*	*	*	*	*	F	*	*								
ApproachDel:	9.1			xxxxxx			xxxxxx			xxxxxx										
ApproachLOS:	A			*			*			*										

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #6 Brentwood Blvd. @ Sunrise Drive

Average Delay (sec/veh): 2.2 Worst Case Level Of Service: F[114.8]

Street Name:	Brentwood Blvd.									Sunrise Dr.								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	1	0	0	0	0	0	1	0	0	0	1!	0	0	0	0	0	0	0
Volume Module:																				
Base Vol:	12	1159		0		0	1136		11		21		0		23		0		0	
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00		1.00		1.00	
Initial Bse:	12	1159		0		0	1136		11		21		0		23		0		0	
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Volume:	12	1159		0		0	1136		11		21		0		23		0		0	
Reduct Vol:	0	0		0		0	0		0		0		0		0		0		0	
FinalVolume:	12	1159		0		0	1136		11		21		0		23		0		0	
Critical Gap Module:																				
Critical Gp:	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx				6.4	6.5				6.2	xxxxx	xxxx	xxxxx		
FollowUpTim:	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx				3.5	4.0				3.3	xxxxx	xxxx	xxxxx		
Capacity Module:																				
Cnflict Vol:	1147	xxxx	xxxxx	xxxx	xxxx	xxxxx				2325	2325				1142	xxxx	xxxx	xxxxx		
Potent Cap.:	581	xxxx	xxxxx	xxxx	xxxx	xxxxx				41	37				244	xxxx	xxxx	xxxxx		
Move Cap.:	581	xxxx	xxxxx	xxxx	xxxx	xxxxx				40	37				244	xxxx	xxxx	xxxxx		
Volume/Cap:	0.02	xxxx	xxxx	xxxx	xxxx	xxxx				0.52	0.00				0.09	xxxx	xxxx	xxxx		
Level Of Service Module:																				
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			
Control Del:	11.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			
LOS by Move:	B	*		*		*				*	*				*	*				
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				xxxx	72	xxxxx			xxxx	xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				xxxxx	2.7	xxxxx			xxxxx	xxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				xxxxx	115	xxxxx			xxxxx	xxxx	xxxx	xxxxx		
Shared LOS:	*		*		*					*	F				*					
ApproachDel:	xxxxxx			xxxxxx						114.8					xxxxxx					
ApproachLOS:	*			*						F					*					

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Brentwood Blvd. @ Gregory Lane

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: F[107.4]

Street Name:	Brentwood Blvd.								Gregory Ln.							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	1	0	0	1 0	1	0	0	1 0	0	0	1!	0 0	0	0	1!	0 0
Volume Module:																
Base Vol:	10	1161	0	0	1137	10			20	0	24		0	0	0	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	10	1161	0	0	1137	10			20	0	24		0	0	0	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	10	1161	0	0	1137	10			20	0	24		0	0	0	
Reduct Vol:	0	0	0	0	0	0			0	0	0		0	0	0	
FinalVolume:	10	1161	0	0	1137	10			20	0	24		0	0	0	
Critical Gap Module:																
Critical Gp:	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx			6.4	6.5	6.2		7.1	6.5	6.2	
FollowUpTim:	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx			3.5	4.0	3.3		3.5	4.0	3.3	
Capacity Module:																
Cnflict Vol:	1147	xxxx	xxxxx	xxxx	xxxx	xxxxx			2323	2323	1142		2335	2328	1161	
Potent Cap.:	581	xxxx	xxxxx	xxxx	xxxx	xxxxx			41	37	244		26	37	238	
Move Cap.:	581	xxxx	xxxxx	xxxx	xxxx	xxxxx			41	37	244		23	36	238	
Volume/Cap:	0.02	xxxx	xxxx	xxxx	xxxx	xxxx			0.49	0.00	0.10		0.00	0.00	0.00	
Level Of Service Module:																
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Control Del:	11.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
LOS by Move:	B	*	*	*	*	*			*	*	*		*	*	*	
Movement:	LT -	LTR -	RT	LT -	LTR -	RT			LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			xxxx	74	xxxxx		xxxx	0	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			xxxxx	2.6	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			xxxxx	107	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*			*	F	*		*	*	*	
ApproachDel:	xxxxxx			xxxxxx					107.4				xxxxxx			
ApproachLOS:	*			*					F				*			

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Brentwood Blvd. @ Hanson Lane

Average Delay (sec/veh): 3.9 Worst Case Level Of Service: F[139.1]

Street Name:	Brentwood Blvd.						Hanson Ln					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 1 0			1 0 0 1 0			1 0 0 1 0			1 0 0 1 0		
Volume Module:												
Base Vol:	0	1240	15	33	1114	0	0	0	0	29	0	38
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1240	15	33	1114	0	0	0	0	29	0	38
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1240	15	33	1114	0	0	0	0	29	0	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1240	15	33	1114	0	0	0	0	29	0	38
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	7.1	6.5	6.2	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1255	xxxx	xxxxx	2447	2435	1114	2428	2428	1248
Potent Cap.:	xxxx	xxxx	xxxxx	528	xxxx	xxxxx	21	32	253	35	32	212
Move Cap.:	xxxx	xxxx	xxxxx	528	xxxx	xxxxx	17	30	253	34	30	212
Volume/Cap:	xxxx	xxxx	xxxx	0.06	xxxx	xxxx	0.00	0.00	0.00	0.86	0.00	0.18
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	3.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	12.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	287.6	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	F	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0	xxxx	xxxx	212
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.6
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	25.7
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	D
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			139.1		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Brentwood Blvd. @ Homecoming Way

Average Delay (sec/veh): 1.9 Worst Case Level Of Service: F[95.8]

Street Name:	Brentwood Blvd.						Homecoming Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	1222	33	29	1089	0	0	0	0	15	0	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1222	33	29	1089	0	0	0	0	15	0	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1222	33	29	1089	0	0	0	0	15	0	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1222	33	29	1089	0	0	0	0	15	0	29
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1255	xxxx	xxxxx	xxxx	xxxx	xxxxx	2386	2386	1239
Potent Cap.:	xxxx	xxxx	xxxxx	528	xxxx	xxxxx	xxxx	xxxx	xxxxx	38	34	214
Move Cap.:	xxxx	xxxx	xxxxx	528	xxxx	xxxxx	xxxx	xxxx	xxxxx	36	32	214
Volume/Cap:	xxxx	xxxx	xxxx	0.05	xxxx	xxxx	xxxx	xxxx	xxxx	0.42	0.00	0.14
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	12.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	80	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.4	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	95.8	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			95.8		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #10 Brentwood Blvd. @ Grant Street / Sunset Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.853
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	155	Level Of Service:	D

Street Name:	Brentwood Blvd.						Grant Street / Sunset Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	0 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	58	716	87	106	926	86	23	35	31	172	76	140
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	58	716	87	106	926	86	23	35	31	172	76	140
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	58	716	87	106	926	86	23	35	31	172	76	140
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	716	87	106	926	86	23	35	31	172	76	140
RTOR Reduct:	0	0	87	0	0	0	0	0	0	0	0	106
RTOR Vol:	58	716	0	106	926	86	23	35	31	172	76	34
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	58	716	0	106	926	86	23	35	31	172	76	34
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.92	0.08	0.26	0.39	0.35	0.69	0.31	1.00
Final Sat.:	1650	1650	1650	1650	1510	140	426	649	575	1144	506	1650
Capacity Analysis Module:												
Vol/Sat:	0.04	0.43	0.00	0.06	0.61	0.61	0.05	0.05	0.05	0.15	0.15	0.02
Crit Volume:	58					1012		89			248	
Crit Moves:	****					****		****			****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Brentwood Blvd. @ Sunset Ct.

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: C[21.3]

Street Name:	Brentwood Blvd.						Sunset Ct.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 0 0 1		
Volume Module:												
Base Vol:	0	861	196	16	803	0	0	0	0	0	0	92
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	861	196	16	803	0	0	0	0	0	0	92
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	861	196	16	803	0	0	0	0	0	0	92
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	861	196	16	803	0	0	0	0	0	0	92
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1057	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	959
Potent Cap.:	xxxx	xxxx	xxxxx	629	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	312
Move Cap.:	xxxx	xxxx	xxxxx	629	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	312
Volume/Cap:	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.30
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	1.2
Control Del:	xxxxx	xxxx	xxxxx	10.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	21.3
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	C
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			21.3		
ApproachLOS:	*			*			*			C		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Brentwood Blvd. @ Havenwood Ave.

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: E[45.7]

Street Name:	Brentwood Blvd.									Havenwood Ave.								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	1	0	1	1	0	0	1	0	0	0	0	1	0	0	0	1!	0	0
Volume Module:																				
Base Vol:	7	1000		35		21	875		16		0		2		20		8		0	24
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00		1.00		1.00	1.00
Initial Bse:	7	1000		35		21	875		16		0		2		20		8		0	24
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00		1.00		1.00	1.00
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00		1.00		1.00	1.00
PHF Volume:	7	1000		35		21	875		16		0		2		20		8		0	24
Reduct Vol:	0	0		0		0	0		0		0		0		0		0		0	0
FinalVolume:	7	1000		35		21	875		16		0		2		20		8		0	24
Critical Gap Module:																				
Critical Gp:	4.2	xxxx	xxxxx		4.2	xxxx	xxxxx	xxxxx		6.5		6.2		7.1	6.5		6.2			
FollowUpTim:	2.3	xxxx	xxxxx		2.3	xxxx	xxxxx	xxxxx		4.0		3.3		3.5	4.0		3.3			
Capacity Module:																				
Cnflict Vol:	891	xxxx	xxxxx		1035	xxxx	xxxxx		xxxx	1974		883		1950	1947		1000			
Potent Cap.:	728	xxxx	xxxxx		642	xxxx	xxxxx		xxxx	62		345		48	65		295			
Move Cap.:	728	xxxx	xxxxx		642	xxxx	xxxxx		xxxx	60		345		43	62		295			
Volume/Cap:	0.01	xxxx	xxxx		0.03	xxxx	xxxx		xxxx	0.03		0.06		0.19	0.00		0.08			
Level Of Service Module:																				
2Way95thQ:	0.0	xxxx	xxxxx		0.1	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx					
Control Del:	10.0	xxxx	xxxxx		10.8	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx					
LOS by Move:	A	*		*		B	*		*	*		*		*	*		*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx		240		xxxx		120			xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx		0.3		xxxxx		1.0			xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx		21.5		xxxxx		45.7			xxxxx
Shared LOS:	*	*		*		*	*		*		*			C		*		E			*
ApproachDel:	xxxxxx					xxxxxx					21.5					45.7					
ApproachLOS:	*					*					C					E					

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #13 Brentwood Blvd. @ Applewood Common

Cycle (sec):	100	Critical Vol./Cap.(X):	0.735	
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx	
Optimal Cycle:	86	Level Of Service:	C	

Street Name:	Brentwood Blvd.						Applewood Common					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	20	1087	57	26	890	10	32	4	36	59	0	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	20	1087	57	26	890	10	32	4	36	59	0	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	20	1087	57	26	890	10	32	4	36	59	0	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	1087	57	26	890	10	32	4	36	59	0	37
RTOR Reduct:	0	0	57	0	0	0	0	0	0	0	0	0
RTOR Vol:	20	1087	0	26	890	10	32	4	36	59	0	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	1087	0	26	890	10	32	4	36	59	0	37
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.99	0.01	1.00	0.10	0.90	1.00	0.00	1.00
Final Sat.:	1650	1650	1650	1650	1632	18	1650	165	1485	1650	0	1650
Capacity Analysis Module:												
Vol/Sat:	0.01	0.66	0.00	0.02	0.55	0.55	0.02	0.02	0.02	0.04	0.00	0.02
Crit Volume:		1087		26			40			59		
Crit Moves:		****		****			****			****		

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #14 Brentwood Blvd. @ Sand Creek Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.504
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	A

Street Name:	Brentwood Blvd.						Sand Creek Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	0	0	0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	136	880	24	26	699	147	140	4	107	97	20	133
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	136	880	24	26	699	147	140	4	107	97	20	133
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	136	880	24	26	699	147	140	4	107	97	20	133
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	136	880	24	26	699	147	140	4	107	97	20	133
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	136	880	24	26	699	147	140	4	107	97	20	133
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	136	880	24	26	699	147	140	4	107	97	20	133
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.95	0.05	1.00	1.65	0.35	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1650	3212	88	1650	2727	573	1650	1650	1650	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.08	0.27	0.27	0.02	0.26	0.26	0.08	0.00	0.06	0.06	0.01	0.08
Crit Volume:	136			423			140			133		
Crit Moves:	****			****			****			****		

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #15 Brentwood Blvd. @ Technology Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.285	
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx	
Optimal Cycle:	26	Level Of Service:	A	

Street Name:	Brentwood Blvd.						Technology Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	6	6	0	6	6	4	4	4	0	0	0
Lanes:	1 0 2	0	0	0 0 1	1	0	1 0 0	0	1	0 0 0	0	0
Volume Module:												
Base Vol:	30 1010		0	0	844	12	24	0	63	0	0	0
Growth Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30 1010		0	0	844	12	24	0	63	0	0	0
User Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	30 1010		0	0	844	12	24	0	63	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	30 1010		0	0	844	12	24	0	63	0	0	0
RTOR Reduct:	0	0	0	0	0	0	0	0	30	0	0	0
RTOR Vol:	30 1010		0	0	844	12	24	0	33	0	0	0
PCE Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	30 1010		0	0	844	12	24	0	33	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720 1720	1720	1720	1720	1720	1720	1720 1720	1720	1720	1720	1720	1720
Adjustment:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00 2.00	0.00	0.00	1.97	0.03	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Final Sat.:	1720 3440		0	0	3392	48	1720	0	1720	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.02 0.29	0.00	0.00	0.25	0.25	0.01	0.00	0.02	0.00	0.00	0.00	
Crit Volume:	30				428			33	0			
Crit Moves:	****				****			****				

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #16 Brentwood Blvd @ Nancy Street (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.387
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	A

Street Name:	Brentwood Blvd						Nancy Street (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	7	7	4	7	7	0	0	0	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	0	1001	39	71	785	0	0	0	0	74	0	55
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1001	39	71	785	0	0	0	0	74	0	55
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1001	39	71	785	0	0	0	0	74	0	55
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1001	39	71	785	0	0	0	0	74	0	55
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	0	1001	39	71	785	0	0	0	0	74	0	55
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1001	39	71	785	0	0	0	0	74	0	55
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.92	0.08	1.00	2.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Final Sat.:	1720	3311	129	1720	3440	0	1720	1720	0	1720	0	1720
Capacity Analysis Module:												
Vol/Sat:	0.00	0.30	0.30	0.04	0.23	0.00	0.00	0.00	0.00	0.04	0.00	0.03
Crit Volume:		520			71			0			74	
Crit Moves:		****			****						****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #17 Brentwood Blvd. @ Village Drive

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: E[39.3]

Street Name:	Brentwood Blvd.						Village Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	953	36	23	731	0	0	0	0	22	0	33
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	953	36	23	731	0	0	0	0	22	0	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	953	36	23	731	0	0	0	0	22	0	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	953	36	23	731	0	0	0	0	22	0	33
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	989	xxxx	xxxxx	xxxx	xxxx	xxxxx	1748	1748	971
Potent Cap.:	xxxx	xxxx	xxxxx	668	xxxx	xxxxx	xxxx	xxxx	xxxxx	95	86	307
Move Cap.:	xxxx	xxxx	xxxxx	668	xxxx	xxxxx	xxxx	xxxx	xxxxx	92	83	307
Volume/Cap:	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.24	0.00	0.11
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	10.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	159	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.4	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	39.3	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	E	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			39.3		
ApproachLOS:	*			*			*			E		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #18 Brentwood Blvd. @ Central Blvd / Sycamore Ave (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.348
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	A

Street Name:	Brentwood Blvd.						Central Blvd / Sycamore Ave (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	15	15	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	22	251	16	83	596	79	194	257	179	21	52	51
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	22	251	16	83	596	79	194	257	179	21	52	51
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	22	251	16	83	596	79	194	257	179	21	52	51
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	251	16	83	596	79	194	257	179	21	52	51
RTOR Reduct:	0	0	16	0	0	0	0	0	0	0	0	51
RTOR Vol:	22	251	0	83	596	79	194	257	179	21	52	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	22	251	0	83	596	79	194	257	179	21	52	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.77	0.23	1.00	1.18	0.82	1.00	1.00	1.00
Final Sat.:	1720	1720	1720	1720	3037	403	1720	2028	1412	1720	1720	1720
Capacity Analysis Module:												
Vol/Sat:	0.01	0.15	0.00	0.05	0.20	0.20	0.11	0.13	0.13	0.01	0.03	0.00
Crit Volume:	22			338			218			21		
Crit Moves:	****			****			****			****		

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #20 Central Street @ Second Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.508
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	46	Level Of Service:	A

Street Name:	Second Street						Central Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ignore		
Min. Green:	5	5	5	5	5	5	5	7	7	5	7	7
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	32	108	20	70	504	5	21	489	472	72	252	69
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	32	108	20	70	504	5	21	489	472	72	252	69
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	32	108	20	70	504	5	21	489	472	72	252	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	108	20	70	504	5	21	489	472	72	252	69
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	32	108	20	70	504	5	21	489	472	72	252	69
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	32	108	20	70	504	5	21	489	472	72	252	69
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.69	0.31	1.00	1.98	0.02	1.00	1.02	0.98	1.00	2.00	1.00
Final Sat.:	1650	2784	516	1650	3268	32	1650	1679	1621	1650	3300	1650
Capacity Analysis Module:												
Vol/Sat:	0.02	0.04	0.04	0.04	0.15	0.15	0.01	0.29	0.29	0.04	0.08	0.04
Crit Volume:	32					255			481	72		
Crit Moves:	****					****			****	****		

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #21 Central Blvd @ Walnut Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.471
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	43	Level Of Service:	A

Street Name:	Walnut Blvd						Central Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	5	7	7	5	7	7	5	7	7	5	7	7
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	66	60	467	47	18	7	49	382	145	355	132	121
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	66	60	467	47	18	7	49	382	145	355	132	121
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	66	60	467	47	18	7	49	382	145	355	132	121
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	60	467	47	18	7	49	382	145	355	132	121
RTOR Reduct:	0	0	355	0	0	0	0	0	0	0	0	0
RTOR Vol:	66	60	112	47	18	7	49	382	145	355	132	121
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	66	60	112	47	18	7	49	382	145	355	132	121
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.72	0.28	1.00	1.45	0.55	1.00	1.04	0.96
Final Sat.:	1650	1650	1650	1650	1188	462	1650	2392	908	1650	1722	1578
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.07	0.03	0.02	0.02	0.03	0.16	0.16	0.22	0.08	0.08
Crit Volume:			112	47				264		355		
Crit Moves:			****	****				****		****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #22 Brentwood Blvd @ Pine Street

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: A[9.6]

Street Name:	Brentwood Blvd						Pine Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1	1 0		0 1	1 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	237	53	8	192	0	0	0	0	1	0	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	237	53	8	192	0	0	0	0	1	0	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	237	53	8	192	0	0	0	0	1	0	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	237	53	8	192	0	0	0	0	1	0	3
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	290	xxxx	xxxxx	xxxx	xxxx	xxxxx	376	472	145
Potent Cap.:	xxxx	xxxx	xxxxx	1213	xxxx	xxxxx	xxxx	xxxx	xxxxx	599	489	876
Move Cap.:	xxxx	xxxx	xxxxx	1213	xxxx	xxxxx	xxxx	xxxx	xxxxx	596	486	876
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	0.00	0.00
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	784	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.0	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	9.6	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			9.6		
ApproachLOS:	*			*			*			A		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #23 Brentwood Blvd @ Maple Street

Average Delay (sec/veh): 5.5 Worst Case Level Of Service: B[12.0]

Street Name:	Brentwood Blvd								Maple Street							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	0	1	0	1 0	0	1	0	1 0	0	0	0	1 0	0	0	0	1 0
Volume Module:																
Base Vol:	17	249		23	7	176		16	0	59		177	0	40		121
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:	17	249		23	7	176		16	0	59		177	0	40		121
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Volume:	17	249		23	7	176		16	0	59		177	0	40		121
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
FinalVolume:	17	249		23	7	176		16	0	59		177	0	40		121
Critical Gap Module:																
Critical Gp:	4.3	xxxx	xxxxx		4.3	xxxx	xxxxx	xxxxx	6.5		6.9	xxxxx	6.5		6.9	
FollowUpTim:	2.3	xxxx	xxxxx		2.3	xxxx	xxxxx	xxxxx	4.0		3.3	xxxxx	4.0		3.3	
Capacity Module:																
Cnflict Vol:	192	xxxx	xxxxx		272	xxxx	xxxxx	xxxx	504		96	xxxx	501		136	
Potent Cap.:	1322	xxxx	xxxxx		1232	xxxx	xxxxx	xxxx	469		942	xxxx	471		888	
Move Cap.:	1322	xxxx	xxxxx		1232	xxxx	xxxxx	xxxx	460		942	xxxx	462		888	
Volume/Cap:	0.01	xxxx	xxxx		0.01	xxxx	xxxx	xxxx	0.13		0.19	xxxx	0.09		0.14	
Level Of Service Module:																
2Way95thQ:	0.0	xxxx	xxxxx		0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		
Control Del:	7.8	xxxx	xxxxx		7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		
LOS by Move:	A	*	*		A	*	*	*	*	*		*	*	*		
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	746		xxxx	xxxx	722	
SharedQueue:	0.0	xxxx	xxxxx		0.0	xxxx	xxxxx	xxxxx	xxxx	1.4		xxxxx	xxxx	0.9		
Shrd ConDel:	7.8	xxxx	xxxxx		7.9	xxxx	xxxxx	xxxxx	xxxx	12.0		xxxxx	xxxx	11.4		
Shared LOS:	A	*	*		A	*	*	*	*	B		*	*	B		
ApproachDel:	xxxxxx				xxxxxx			12.0				11.4				
ApproachLOS:	*				*			B				B				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #24 Brentwood Blvd @ Oak Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.171
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Brentwood Blvd.						Oak St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 1	0 1	0	1 0	1 0	1
Volume Module:												
Base Vol:	49	194	29	9	110	42	123	145	98	10	23	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	49	194	29	9	110	42	123	145	98	10	23	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	49	194	29	9	110	42	123	145	98	10	23	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	194	29	9	110	42	123	145	98	10	23	3
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	3
RTOR Vol:	49	194	29	9	110	42	123	145	98	10	23	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	49	194	29	9	110	42	123	145	98	10	23	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.74	0.26	1.00	1.45	0.55	1.00	1.19	0.81	1.00	1.00	1.00
Final Sat.:	1650	2871	429	1650	2388	912	1507	1958	1334	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.03	0.07	0.07	0.01	0.05	0.05	0.08	0.07	0.07	0.01	0.01	0.00
Crit Volume:	49			76			122			23		
Crit Moves:	****			****			****			****		

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #25 Walnut Blvd @ Oak St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.521
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	A

Street Name:	Walnut Blvd						Oak St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	5	7	7	0	7	7	5	5	5	5	5	5
Lanes:	1 0	1 0	1	1 0	0 1	0	0 1	0 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	6	268	578	277	195	4	1	1	0	107	2	46
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	268	578	277	195	4	1	1	0	107	2	46
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	268	578	277	195	4	1	1	0	107	2	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	268	578	277	195	4	1	1	0	107	2	46
RTOR Reduct:	0	0	107	0	0	0	0	0	0	0	0	46
RTOR Vol:	6	268	471	277	195	4	1	1	0	107	2	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	6	268	471	277	195	4	1	1	0	107	2	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.98	0.02	0.50	0.50	0.00	0.98	0.02	1.00
Final Sat.:	1650	1650	1650	1650	1617	33	825	825	0	1620	30	1650
Capacity Analysis Module:												
Vol/Sat:	0.00	0.16	0.29	0.17	0.12	0.12	0.00	0.00	0.00	0.07	0.07	0.00
Crit Volume:			471	277				2			109	
Crit Moves:			****	****				****			****	

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #26 Brentwood Blvd. @ Second St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.217
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	25	Level Of Service:	A

Street Name:	Brentwood Blvd.						Second St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	57	221	12	107	230	12	33	115	19	47	235	172
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	221	12	107	230	12	33	115	19	47	235	172
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	221	12	107	230	12	33	115	19	47	235	172
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	221	12	107	230	12	33	115	19	47	235	172
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	107
RTOR Vol:	57	221	12	107	230	12	33	115	19	47	235	65
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	221	12	107	230	12	33	115	19	47	235	65
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.90	0.10	1.00	1.90	0.10	1.00	1.72	0.28	1.00	2.00	1.00
Final Sat.:	1720	3263	177	1720	3269	171	1720	2952	488	1720	3440	1720
Capacity Analysis Module:												
Vol/Sat:	0.03	0.07	0.07	0.06	0.07	0.07	0.02	0.04	0.04	0.03	0.07	0.04
Crit Volume:		116			107			33			118	
Crit Moves:		****			****			****			****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #27 Brentwood Blvd. @ Chestnut St.

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: B[10.3]

Street Name:	Brentwood Blvd.						Chestnut St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	273	19	12	108	0	0	0	0	5	0	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	273	19	12	108	0	0	0	0	5	0	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	273	19	12	108	0	0	0	0	5	0	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	273	19	12	108	0	0	0	0	5	0	11
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	292	xxxx	xxxxx	xxxx	xxxx	xxxxx	415	415	283
Potent Cap.:	xxxx	xxxx	xxxxx	1225	xxxx	xxxxx	xxxx	xxxx	xxxxx	594	528	756
Move Cap.:	xxxx	xxxx	xxxxx	1225	xxxx	xxxxx	xxxx	xxxx	xxxxx	590	523	756
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	695	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	10.3	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			10.3		
ApproachLOS:	*			*			*			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #28 Brentwood Blvd. @ Balfour Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.343
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	A

Street Name:	Brentwood Blvd.						Balfour Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	8	10	10	6	10	10	5	5	5	4	5	5
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	1 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	217	298	13	7	58	45	124	170	161	30	343	49
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	217	298	13	7	58	45	124	170	161	30	343	49
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	217	298	13	7	58	45	124	170	161	30	343	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	217	298	13	7	58	45	124	170	161	30	343	49
RTOR Reduct:	0	0	0	0	0	45	0	0	161	0	0	0
RTOR Vol:	217	298	13	7	58	0	124	170	0	30	343	49
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	217	298	13	7	58	0	124	170	0	30	343	49
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.75	0.25
Final Sat.:	1650	3300	1650	1650	3300	1650	1650	1650	1650	1650	2888	413
Capacity Analysis Module:												
Vol/Sat:	0.13	0.09	0.01	0.00	0.02	0.00	0.08	0.10	0.00	0.02	0.12	0.12
Crit Volume:	217				29		124				196	
Crit Moves:	****				****		****				****	

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #29 Sellers Ave. @ Sunet Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.731
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	15.7
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Sellers Ave.						Sunset Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	145	328	15	10	217	81	49	65	71	18	61	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	145	328	15	10	217	81	49	65	71	18	61	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	145	328	15	10	217	81	49	65	71	18	61	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	145	328	15	10	217	81	49	65	71	18	61	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	145	328	15	10	217	81	49	65	71	18	61	23
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.30	0.67	0.03	0.03	0.71	0.26	0.26	0.35	0.39	0.18	0.60	0.22
Final Sat.:	198	449	21	21	453	169	145	192	210	88	300	113
Capacity Analysis Module:												
Vol/Sat:	0.73	0.73	0.73	0.48	0.48	0.48	0.34	0.34	0.34	0.20	0.20	0.20
Crit Moves:		****		****				****			****	
Delay/Veh:	20.3	20.3	20.3	12.7	12.7	12.7	11.5	11.5	11.5	10.5	10.5	10.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.3	20.3	20.3	12.7	12.7	12.7	11.5	11.5	11.5	10.5	10.5	10.5
LOS by Move:	C	C	C	B	B	B	B	B	B	B	B	B
ApproachDel:	20.3			12.7			11.5			10.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	20.3			12.7			11.5			10.5		
LOS by Appr:	C			B			B			B		
AllWayAvgQ:	2.2	2.2	2.2	0.8	0.8	0.8	0.4	0.4	0.4	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Brentwood Blvd. @ Delta Road

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Brentwood Blvd.						Delta Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			1 0 0 1 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	129	493	335	148	355	89	131	89	92	124	47	177
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	129	493	335	148	355	89	131	89	92	124	47	177
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	129	493	335	148	355	89	131	89	92	124	47	177
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	129	493	335	148	355	89	131	89	92	124	47	177
Critical Gap Module:												
Critical Gp:	4.2	xxxx	xxxxx	4.2	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.3	xxxx	xxxxx	2.3	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	444	xxxx	xxxxx	828	xxxx	xxxxx	1726	1782	400	1705	1659	661
Potent Cap.:	1075	xxxx	xxxxx	770	xxxx	xxxxx	70	82	650	72	98	463
Move Cap.:	1075	xxxx	xxxxx	770	xxxx	xxxxx	15	58	650	0	69	463
Volume/Cap:	0.12	xxxx	xxxx	0.19	xxxx	xxxx	8.50	1.54	0.14	xxxx	0.68	0.38
Level Of Service Module:												
2Way95thQ:	0.4	xxxx	xxxxx	0.7	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	8.8	xxxx	xxxxx	10.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	31	xxxxx	xxxx	0	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	38.2	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	4384	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			4384.1			xxxxxx		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 Sellers Ave @ Delta

Cycle (sec):	100	Critical Vol./Cap.(X):	0.872
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	26.5
Optimal Cycle:	0	Level Of Service:	D

Street Name:	Sellers Ave.						Delta Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	108	278	50	4	49	5	96	289	155	49	111	35
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	108	278	50	4	49	5	96	289	155	49	111	35
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	108	278	50	4	49	5	96	289	155	49	111	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	108	278	50	4	49	5	96	289	155	49	111	35
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	108	278	50	4	49	5	96	289	155	49	111	35
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.25	0.64	0.11	0.07	0.84	0.09	0.18	0.53	0.29	0.25	0.57	0.18
Final Sat.:	139	358	64	31	377	38	110	332	178	131	297	94
Capacity Analysis Module:												
Vol/Sat:	0.78	0.78	0.78	0.13	0.13	0.13	0.87	0.87	0.87	0.37	0.37	0.37
Crit Moves:		****			****				****		****	
Delay/Veh:	25.7	25.7	25.7	11.0	11.0	11.0	33.8	33.8	33.8	12.7	12.7	12.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.7	25.7	25.7	11.0	11.0	11.0	33.8	33.8	33.8	12.7	12.7	12.7
LOS by Move:	D	D	D	B	B	B	D	D	D	B	B	B
ApproachDel:		25.7			11.0			33.8			12.7	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		25.7			11.0			33.8			12.7	
LOS by Appr:		D			B			D			B	
AllWayAvgQ:	2.6	2.6	2.6	0.1	0.1	0.1	4.3	4.3	4.3	0.5	0.5	0.5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Brentwood Blvd. @ E. Sims Road

Average Delay (sec/veh): 9.8 Worst Case Level Of Service: F[129.1]

Street Name:	Brentwood Blvd.								E. Sims Road							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	0	0	0	1 0	0	1	0	0 0	0	0	0	0 0	0	0	1!	0 0
Volume Module:																
Base Vol:	0	1003		28	26	560		0	0		0	0	88		0	42
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
Initial Bse:	0	1003		28	26	560		0	0		0	0	88		0	42
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
PHF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
PHF Volume:	0	1003		28	26	560		0	0		0	0	88		0	42
Reduct Vol:	0	0		0	0	0		0	0		0	0	0		0	0
FinalVolume:	0	1003		28	26	560		0	0		0	0	88		0	42
Critical Gap Module:																
Critical Gp:	xxxxx	xxxx		xxxxx 4.2	xxxx	xxxxx		xxxxx	xxxx		xxxxx 6.4		6.5		6.2	
FollowUpTim:	xxxxx	xxxx		xxxxx 2.3	xxxx	xxxxx		xxxxx	xxxx		xxxxx 3.5		4.0		3.3	
Capacity Module:																
Cnflict Vol:	xxxx	xxxx		xxxxx 1031	xxxx	xxxxx		xxxx	xxxx		xxxxx 1629		1629		1017	
Potent Cap.:	xxxx	xxxx		xxxxx 644	xxxx	xxxxx		xxxx	xxxx		xxxxx 112		102		288	
Move Cap.:	xxxx	xxxx		xxxxx 644	xxxx	xxxxx		xxxx	xxxx		xxxxx 108		98		288	
Volume/Cap:	xxxx	xxxx		xxxx 0.04	xxxx	xxxx		xxxx	xxxx		xxxx 0.81		0.00		0.15	
Level Of Service Module:																
2Way95thQ:	xxxx	xxxx		xxxxx 0.1	xxxx	xxxxx		xxxx	xxxx		xxxxx xxxx		xxxx		xxxxx	
Control Del:	xxxxx	xxxx		xxxxx 10.8	xxxx	xxxxx		xxxxx	xxxx		xxxxx xxxxx		xxxx		xxxxx	
LOS by Move:	*	*		* B	*	*		*	*		* *		*		*	
Movement:	LT -	LTR -		RT	LT -	LTR -		RT	LT -	LTR -		RT	LT -	LTR -		RT
Shared Cap.:	xxxx	xxxx		xxxxx xxxx	xxxx	xxxxx		xxxx	xxxx		xxxxx xxxx		136		xxxxx	
SharedQueue:	xxxxx	xxxx		xxxxx 0.1	xxxx	xxxxx		xxxxx	xxxx		xxxxx xxxxx		6.6		xxxxx	
Shrd ConDel:	xxxxx	xxxx		xxxxx 10.8	xxxx	xxxxx		xxxxx	xxxx		xxxxx xxxxx		129		xxxxx	
Shared LOS:	*	*		* B	*	*		*	*		* *		F		*	
ApproachDel:	xxxxxx			xxxxxx				xxxxxx				129.1				
ApproachLOS:	*			*				*				F				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #4 Brentwood Blvd @ Lone Tree Way (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.152
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Brentwood Blvd						Lone Tree Way (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	1 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	765	638	46	21	519	458	485	27	667	104	31	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	765	638	46	21	519	458	485	27	667	104	31	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	765	638	46	21	519	458	485	27	667	104	31	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	765	638	46	21	519	458	485	27	667	104	31	37
RTOR Reduct:	0	0	46	0	0	0	0	0	667	0	0	21
RTOR Vol:	765	638	0	21	519	458	485	27	0	104	31	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	765	638	0	21	519	458	485	27	0	104	31	16
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.06	0.94	0.95	0.05	1.00	0.77	0.23	1.00
Final Sat.:	1650	1650	1650	1650	1753	1547	1563	87	1650	1271	379	1650
Capacity Analysis Module:												
Vol/Sat:	0.46	0.39	0.00	0.01	0.30	0.30	0.31	0.31	0.00	0.08	0.08	0.01
Crit Volume:	765					489		512			135	
Crit Moves:	****					****		****			****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Arroyo Seco Road @ Lone Tree Way

Average Delay (sec/veh): 4.1 Worst Case Level Of Service: F[3605.0]

Street Name:	Arroyo Seco Road									Lone Tree Way					
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T - R	L	-	T - R	L	-	T - R	L	-	T - R			
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled					
Rights:	Include			Include			Include			Include					
Lanes:	1	0	0 1 0	1	0	0 1 0	1	0	0 1 0	1	1	0 1 0			
Volume Module:															
Base Vol:	48	0	2	0	0	0	0	3	54	0	1	0			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	48	0	2	0	0	0	0	3	54	0	1	0			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	48	0	2	0	0	0	0	3	54	0	1	0			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
FinalVolume:	48	0	2	0	0	0	0	3	54	0	1	0			
Critical Gap Module:															
Critical Gp:	6.4	6.5	6.2	7.1	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Capacity Module:															
Cnflict Vol:	31	31	30	32	58	1	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Potent Cap.:	984	862	1044	976	833	1084	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Move Cap.:	984	862	1044	974	833	1084	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Volume/Cap:	0.05	0.00	0.00	0.00	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx			
Level Of Service Module:															
2Way95thQ:	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	8.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*			
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT					
Shared Cap.:	xxxx	xxxx	1044	xxxx	xxxx	0	xxxx	xxxx	xxxxx	1	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	0.0	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	8.5	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3605	xxxx	xxxxx			
Shared LOS:	*	*	A	*	*	*	*	*	*	F	*	*			
ApproachDel:	8.8			xxxxxx			xxxxxx			xxxxxx					
ApproachLOS:	A			*			*			*					

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #6 Brentwood Blvd. @ Sunrise Drive

Average Delay (sec/veh): 80.8 Worst Case Level Of Service: F[1909.2]

Street Name:	Brentwood Blvd.						Sunrise Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 1	0 0		0 0 0	1 0		0 0 1!	0 0		0 0 0	0 0	
Volume Module:												
Base Vol:	36	1413	0	0	1422	33	67	0	61	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	36	1413	0	0	1422	33	67	0	61	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	36	1413	0	0	1422	33	67	0	61	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	36	1413	0	0	1422	33	67	0	61	0	0	0
Critical Gap Module:												
Critical Gp:	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1455	xxxx	xxxxx	xxxx	xxxx	xxxxx	2924	2924	1439	xxxx	xxxx	xxxxx
Potent Cap.:	441	xxxx	xxxxx	xxxx	xxxx	xxxxx	17	15	163	xxxx	xxxx	xxxxx
Move Cap.:	441	xxxx	xxxxx	xxxx	xxxx	xxxxx	16	14	163	xxxx	xxxx	xxxxx
Volume/Cap:	0.08	xxxx	xxxx	xxxx	xxxx	xxxx	4.23	0.00	0.37	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	13.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	B	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	28	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	15.6	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1909	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			1909.2			xxxxxx		
ApproachLOS:	*			*			F			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Brentwood Blvd. @ Gregory Lane

Average Delay (sec/veh): 70.1 Worst Case Level Of Service: F[1658.2]

Street Name:	Brentwood Blvd.						Gregory Ln.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0	1 0		1 0 0	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:												
Base Vol:	24 1425	0		0 1385	70		63	0		65	0	0
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	24 1425	0		0 1385	70		63	0		65	0	0
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	24 1425	0		0 1385	70		63	0		65	0	0
Reduct Vol:	0 0	0		0 0	0		0	0		0	0	0
FinalVolume:	24 1425	0		0 1385	70		63	0		65	0	0
Critical Gap Module:												
Critical Gp:	4.2 xxxx xxxxx	xxxxx		xxxx xxxxx			6.4	6.5		6.2	7.1	6.5 6.2
FollowUpTim:	2.3 xxxx xxxxx	xxxxx		xxxx xxxxx			3.5	4.0		3.3	3.5	4.0 3.3
Capacity Module:												
Cnflict Vol:	1455 xxxx xxxxx	xxxx		xxxx xxxxx			2893	2893		1420	2926	2928 1425
Potent Cap.:	441 xxxx xxxxx	xxxx		xxxx xxxxx			18	16		167	10	15 166
Move Cap.:	441 xxxx xxxxx	xxxx		xxxx xxxxx			17	15		167	6	14 166
Volume/Cap:	0.05 xxxx xxxx	xxxx		xxxx xxxx	xxxx		3.72	0.00		0.39	0.00	0.00 0.00
Level Of Service Module:												
2Way95thQ:	0.2 xxxx xxxxx	xxxx		xxxx xxxxx			xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	13.6 xxxx xxxxx	xxxxx		xxxx xxxxx			xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	B *	*		* *	*		*	*		*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx	31	xxxxx	xxxx	0	xxxxx
SharedQueue:	xxxxx xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx	15.3	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx	1658	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	* *	*		* *	*		*	F	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			1658.2			xxxxxx		
ApproachLOS:	*			*			F			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Brentwood Blvd. @ Hanson Lane

Average Delay (sec/veh): 117.1 Worst Case Level Of Service: F[1851.9]

Street Name:	Brentwood Blvd.						Hanson Ln					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0	1 0		1 0 0	1 0		1 0 0	1 0		1 0 0	1 0	
Volume Module:												
Base Vol:	0	1449	20	48	1407	0	0	0	0	107	0	90
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1449	20	48	1407	0	0	0	0	107	0	90
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1449	20	48	1407	0	0	0	0	107	0	90
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1449	20	48	1407	0	0	0	0	107	0	90
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	7.1	6.5	6.2	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1469	xxxx	xxxxx	3007	2972	1407	2962	2962	1459
Potent Cap.:	xxxx	xxxx	xxxxx	436	xxxx	xxxxx	8	14	170	16	14	159
Move Cap.:	xxxx	xxxx	xxxxx	436	xxxx	xxxxx	3	13	170	15	13	159
Volume/Cap:	xxxx	xxxx	xxxx	0.11	xxxx	xxxx	0.00	0.00	0.00	7.33	0.00	0.57
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	14.3	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	14.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3364	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	F	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0	xxxx	xxxx	159
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	2.9
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	53.9
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	F
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			1851.9		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Brentwood Blvd. @ Homecoming Way

Average Delay (sec/veh): 2.7 Worst Case Level Of Service: F[368.8]

Street Name:	Brentwood Blvd.						Homecoming Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	1455	14	15	1567	0	0	0	0	11	0	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1455	14	15	1567	0	0	0	0	11	0	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1455	14	15	1567	0	0	0	0	11	0	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1455	14	15	1567	0	0	0	0	11	0	11
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1469	xxxx	xxxxx	xxxx	xxxx	xxxxx	3059	3059	1462
Potent Cap.:	xxxx	xxxx	xxxxx	436	xxxx	xxxxx	xxxx	xxxx	xxxxx	14	12	158
Move Cap.:	xxxx	xxxx	xxxxx	436	xxxx	xxxxx	xxxx	xxxx	xxxxx	13	12	158
Volume/Cap:	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.82	0.00	0.07
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	13.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	25	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.7	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	369	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			368.8		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #10 Brentwood Blvd. @ Grant Street / Sunset Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	1.110
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Brentwood Blvd.						Grant Street / Sunset Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	0 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	37	974	100	137	1409	37	16	47	21	176	88	186
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	37	974	100	137	1409	37	16	47	21	176	88	186
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	37	974	100	137	1409	37	16	47	21	176	88	186
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	974	100	137	1409	37	16	47	21	176	88	186
RTOR Reduct:	0	0	100	0	0	0	0	0	0	0	0	137
RTOR Vol:	37	974	0	137	1409	37	16	47	21	176	88	49
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	37	974	0	137	1409	37	16	47	21	176	88	49
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.97	0.03	0.19	0.56	0.25	0.67	0.33	1.00
Final Sat.:	1650	1650	1650	1650	1608	42	314	923	413	1100	550	1650
Capacity Analysis Module:												
Vol/Sat:	0.02	0.59	0.00	0.08	0.88	0.88	0.05	0.05	0.05	0.16	0.16	0.03
Crit Volume:	37				1446				84		264	
Crit Moves:	****				****				****		****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Brentwood Blvd. @ Sunset Ct.

Average Delay (sec/veh): 13.8 Worst Case Level Of Service: F[150.1]

Street Name:	Brentwood Blvd.						Sunset Ct.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 0 0 1		
Volume Module:												
Base Vol:	0	1115	197	8	1188	0	0	0	0	0	0	253
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1115	197	8	1188	0	0	0	0	0	0	253
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1115	197	8	1188	0	0	0	0	0	0	253
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1115	197	8	1188	0	0	0	0	0	0	253
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1312	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	1214
Potent Cap.:	xxxx	xxxx	xxxxx	502	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	221
Move Cap.:	xxxx	xxxx	xxxxx	502	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	221
Volume/Cap:	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	1.14
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	11.9
Control Del:	xxxxx	xxxx	xxxxx	12.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	150.1
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	F
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			150.1		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Brentwood Blvd. @ Havenwood Ave.

Average Delay (sec/veh): 22.7 Worst Case Level Of Service: F[1262.0]

Street Name:	Brentwood Blvd.								Havenwood Ave.							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	1	0	1	0 1	1	0	0	1 0	0	0	0	0 1	0	0	1!	0 0
Volume Module:																
Base Vol:	7	1300		31	20	1426		14	0		0	6	30		0	21
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
Initial Bse:	7	1300		31	20	1426		14	0		0	6	30		0	21
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
PHF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
PHF Volume:	7	1300		31	20	1426		14	0		0	6	30		0	21
Reduct Vol:	0	0		0	0	0		0	0		0	0	0		0	0
FinalVolume:	7	1300		31	20	1426		14	0		0	6	30		0	21
Critical Gap Module:																
Critical Gp:	4.2	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	6.2		7.1	6.5	6.2			
FollowUpTim:	2.3	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	3.3		3.5	4.0	3.3			
Capacity Module:																
Cnflict Vol:	1440	xxxx	xxxxx	1331	xxxx	xxxxx	xxxx	xxxx	1433		2790	2794	1300			
Potent Cap.:	447	xxxx	xxxxx	493	xxxx	xxxxx	xxxx	xxxx	164		12	19	197			
Move Cap.:	447	xxxx	xxxxx	493	xxxx	xxxxx	xxxx	xxxx	164		11	18	197			
Volume/Cap:	0.02	xxxx	xxxx	0.04	xxxx	xxxx	xxxx	xxxx	0.04		2.71	0.00	0.11			
Level Of Service Module:																
2Way95thQ:	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	0.1		xxxx	xxxx	xxxxx			
Control Del:	13.2	xxxx	xxxxx	12.6	xxxx	xxxxx	xxxxx	xxxx	27.7		xxxxx	xxxx	xxxxx			
LOS by Move:	B	*	*	B	*	*	*	*	D		*	*	*			
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR - RT	LT -	LTR -	RT	LT -	LTR - RT			
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx xxxxx	xxxx		18	xxxxx				
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx xxxxx	xxxxx		6.9	xxxxx				
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx xxxxx	xxxxx		1262	xxxxx				
Shared LOS:	*	*	*	*	*	*	*	* *	*		F	*				
ApproachDel:	xxxxxx			xxxxxx			27.7		1262.0							
ApproachLOS:	*			*			D		F							

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #13 Brentwood Blvd. @ Applewood Common

Cycle (sec):	100	Critical Vol./Cap.(X):	0.918	
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx	
Optimal Cycle:	180	Level Of Service:	E	

Street Name:	Brentwood Blvd.						Applewood Common					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	10	1276	54	28	1411	10	14	0	20	70	6	34
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	1276	54	28	1411	10	14	0	20	70	6	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	1276	54	28	1411	10	14	0	20	70	6	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	1276	54	28	1411	10	14	0	20	70	6	34
RTOR Reduct:	0	0	54	0	0	0	0	0	0	0	0	0
RTOR Vol:	10	1276	0	28	1411	10	14	0	20	70	6	34
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	1276	0	28	1411	10	14	0	20	70	6	34
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.99	0.01	1.00	0.00	1.00	1.00	0.15	0.85
Final Sat.:	1650	1650	1650	1650	1638	12	1650	0	1650	1650	248	1403
Capacity Analysis Module:												
Vol/Sat:	0.01	0.77	0.00	0.02	0.86	0.86	0.01	0.00	0.01	0.04	0.02	0.02
Crit Volume:	10					1421	14			70		
Crit Moves:	****					****	****			****		

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #14 Brentwood Blvd. @ Sand Creek Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.843
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	119	Level Of Service:	D

Street Name:	Brentwood Blvd.						Sand Creek Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	0	0	0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	269	935	77	90	1200	315	156	13	171	194	51	177
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	269	935	77	90	1200	315	156	13	171	194	51	177
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	269	935	77	90	1200	315	156	13	171	194	51	177
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	269	935	77	90	1200	315	156	13	171	194	51	177
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	269	935	77	90	1200	315	156	13	171	194	51	177
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	269	935	77	90	1200	315	156	13	171	194	51	177
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.85	0.15	1.00	1.58	0.42	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1650	3049	251	1650	2614	686	1650	1650	1650	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.16	0.31	0.31	0.05	0.46	0.46	0.09	0.01	0.10	0.12	0.03	0.11
Crit Volume:	269					758			171	194		
Crit Moves:	****					****			****	****		

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #15 Brentwood Blvd. @ Technology Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.462	
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx	
Optimal Cycle:	35	Level Of Service:	A	

Street Name:	Brentwood Blvd.						Technology Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	6	6	0	6	6	4	4	4	0	0	0
Lanes:	1 0 2	0 0		0 0 1	1 0		1 0 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	45	1235	0	0	1445	23	15	0	69	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	1235	0	0	1445	23	15	0	69	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	45	1235	0	0	1445	23	15	0	69	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	1235	0	0	1445	23	15	0	69	0	0	0
RTOR Reduct:	0	0	0	0	0	0	0	0	45	0	0	0
RTOR Vol:	45	1235	0	0	1445	23	15	0	24	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	1235	0	0	1445	23	15	0	24	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.97	0.03	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1720	3440	0	0	3386	54	1720	0	1720	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.36	0.00	0.00	0.43	0.43	0.01	0.00	0.01	0.00	0.00	0.00
Crit Volume:	45				734		15				0	
Crit Moves:	****				****		****					

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #16 Brentwood Blvd @ Nancy Street (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.480
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Street Name:	Brentwood Blvd						Nancy Street (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	7	7	4	7	7	0	0	0	4	4	4
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	0	1 0	1 0	0	1 0
Volume Module:												
Base Vol:	0	1091	49	124	1344	0	0	0	0	126	0	131
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1091	49	124	1344	0	0	0	0	126	0	131
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1091	49	124	1344	0	0	0	0	126	0	131
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1091	49	124	1344	0	0	0	0	126	0	131
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	0	1091	49	124	1344	0	0	0	0	126	0	131
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1091	49	124	1344	0	0	0	0	126	0	131
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.91	0.09	1.00	2.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Final Sat.:	1720	3292	148	1720	3440	0	1720	1720	0	1720	0	1720
Capacity Analysis Module:												
Vol/Sat:	0.00	0.33	0.33	0.07	0.39	0.00	0.00	0.00	0.00	0.07	0.00	0.08
Crit Volume:		570			124			0				131
Crit Moves:		****			****							****

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #17 Brentwood Blvd. @ Village Drive

Average Delay (sec/veh): 17.3 Worst Case Level Of Service: F[510.6]

Street Name:	Brentwood Blvd.						Village Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	1070	69	34	1335	0	0	0	0	46	0	41
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1070	69	34	1335	0	0	0	0	46	0	41
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1070	69	34	1335	0	0	0	0	46	0	41
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1070	69	34	1335	0	0	0	0	46	0	41
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1139	xxxx	xxxxx	xxxx	xxxx	xxxxx	2508	2508	1105
Potent Cap.:	xxxx	xxxx	xxxxx	585	xxxx	xxxxx	xxxx	xxxx	xxxxx	31	28	257
Move Cap.:	xxxx	xxxx	xxxxx	585	xxxx	xxxxx	xxxx	xxxx	xxxxx	30	27	257
Volume/Cap:	xxxx	xxxx	xxxx	0.06	xxxx	xxxx	xxxx	xxxx	xxxx	1.53	0.00	0.16
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	11.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	51	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.4	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	511	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			510.6		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #18 Brentwood Blvd. @ Central Blvd / Sycamore Ave (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.572
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	43	Level Of Service:	A

Street Name:	Brentwood Blvd.						Central Blvd / Sycamore Ave (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	15	15	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	1	1 0	1 0	1	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	37	469	35	150	1073	146	273	170	95	23	64	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	37	469	35	150	1073	146	273	170	95	23	64	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	37	469	35	150	1073	146	273	170	95	23	64	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	469	35	150	1073	146	273	170	95	23	64	71
RTOR Reduct:	0	0	23	0	0	0	0	0	0	0	0	71
RTOR Vol:	37	469	12	150	1073	146	273	170	95	23	64	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	37	469	12	150	1073	146	273	170	95	23	64	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.76	0.24	1.00	1.28	0.72	1.00	1.00	1.00
Final Sat.:	1720	1720	1720	1720	3028	412	1720	2207	1233	1720	1720	1720
Capacity Analysis Module:												
Vol/Sat:	0.02	0.27	0.01	0.09	0.35	0.35	0.16	0.08	0.08	0.01	0.04	0.00
Crit Volume:	37					610	273				64	
Crit Moves:	****					****	****				****	

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #20 Central Street @ Second Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.505
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	46	Level Of Service:	A

Street Name:	Second Street						Central Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ignore		
Min. Green:	5	5	5	5	5	5	5	7	7	5	7	7
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	64	252	64	72	280	7	56	653	248	153	557	235
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	64	252	64	72	280	7	56	653	248	153	557	235
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	64	252	64	72	280	7	56	653	248	153	557	235
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	64	252	64	72	280	7	56	653	248	153	557	235
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	64	252	64	72	280	7	56	653	248	153	557	235
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
FinalVolume:	64	252	64	72	280	7	56	653	248	153	557	235
Saturation Flow Module:												
Sat/Lane:	1650 1650	1650		1650 1650	1650		1650 1650	1650		1650 1650	1650	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Lanes:	1.00 1.59	0.41		1.00 1.95	0.05		1.00 1.45	0.55		1.00 2.00	1.00	
Final Sat.:	1650 2632	668		1650 3220	80		1650 2392	908		1650 3300	1650	
Capacity Analysis Module:												
Vol/Sat:	0.04 0.10	0.10		0.04 0.09	0.09		0.03 0.27	0.27		0.09 0.17	0.14	
Crit Volume:		158		72				451		153		
Crit Moves:		****		****				****		****		

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #21 Central Blvd @ Walnut Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.535
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	A

Street Name:	Walnut Blvd						Central Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	5	7	7	5	7	7	5	7	7	5	7	7
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	228	41	316	94	67	27	21	164	142	399	975	103
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	228	41	316	94	67	27	21	164	142	399	975	103
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	228	41	316	94	67	27	21	164	142	399	975	103
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	228	41	316	94	67	27	21	164	142	399	975	103
RTOR Reduct:	0	0	316	0	0	0	0	0	0	0	0	0
RTOR Vol:	228	41	0	94	67	27	21	164	142	399	975	103
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	228	41	0	94	67	27	21	164	142	399	975	103
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.71	0.29	1.00	1.07	0.93	1.00	1.81	0.19
Final Sat.:	1650	1650	1650	1650	1176	474	1650	1769	1531	1650	2985	315
Capacity Analysis Module:												
Vol/Sat:	0.14	0.02	0.00	0.06	0.06	0.06	0.01	0.09	0.09	0.24	0.33	0.33
Crit Volume:	228			94			21				539	
Crit Moves:	****			****			****				****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #22 Brentwood Blvd @ Pine Street

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: A[10.0]

Street Name:	Brentwood Blvd						Pine Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1	1 0		0 1	1 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	278	7	8	317	0	0	0	0	4	0	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	278	7	8	317	0	0	0	0	4	0	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	278	7	8	317	0	0	0	0	4	0	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	278	7	8	317	0	0	0	0	4	0	10
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	285	xxxx	xxxxx	xxxx	xxxx	xxxxx	456	615	143
Potent Cap.:	xxxx	xxxx	xxxxx	1218	xxxx	xxxxx	xxxx	xxxx	xxxxx	533	405	879
Move Cap.:	xxxx	xxxx	xxxxx	1218	xxxx	xxxxx	xxxx	xxxx	xxxxx	530	403	879
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	740	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	10.0	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			10.0		
ApproachLOS:	*			*			*			A		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #23 Brentwood Blvd @ Maple Street

Average Delay (sec/veh): 4.5 Worst Case Level Of Service: B[13.1]

Street Name:	Brentwood Blvd									Maple Street								
Approach:	North Bound						South Bound						East Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign					
Rights:	Include						Include						Include					
Lanes:	0	1	0	1	0		0	1	0	1	0		0	0	0	1	0	
Volume Module:																		
Base Vol:	23	251		11			9	296		34			0	52		155		
Growth Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
Initial Bse:	23	251		11			9	296		34			0	52		155		
User Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
PHF Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
PHF Volume:	23	251		11			9	296		34			0	52		155		
Reduct Vol:	0	0		0			0	0		0			0	0		0		
FinalVolume:	23	251		11			9	296		34			0	52		155		
Critical Gap Module:																		
Critical Gp:	4.3	xxxx	xxxxx				4.3	xxxx	xxxxx	xxxxx			6.5		6.9	xxxxx		
FollowUpTim:	2.3	xxxx	xxxxx				2.3	xxxx	xxxxx	xxxxx			4.0		3.3	xxxxx		
Capacity Module:																		
Cnflict Vol:	330	xxxx	xxxxx				262	xxxx	xxxxx		xxxx		639		165	xxxx		
Potent Cap.:	1170	xxxx	xxxxx				1243	xxxx	xxxxx		xxxx		392		850	xxxx		
Move Cap.:	1170	xxxx	xxxxx				1243	xxxx	xxxxx		xxxx		382		850	xxxx		
Volume/Cap:	0.02	xxxx		xxxx			0.01	xxxx		xxxx			xxxx	0.14		0.18	xxxx	0.07
Level Of Service Module:																		
2Way95thQ:	0.1	xxxx	xxxxx				0.0	xxxx	xxxxx		xxxx		xxxx	xxxxx		xxxx		
Control Del:	8.1	xxxx	xxxxx				7.9	xxxx	xxxxx		xxxxx		xxxx	xxxxx		xxxxx		
LOS by Move:	A	*		*			A	*		*			*	*		*		
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx	xxxx		650		
SharedQueue:	0.1	xxxx	xxxxx				0.0	xxxx	xxxxx				xxxxx	xxxx		1.4		
Shrd ConDel:	8.1	xxxx	xxxxx				7.9	xxxx	xxxxx				xxxxx	xxxx		13.1		
Shared LOS:	A	*		*			A	*		*			*	*		B		
ApproachDel:	xxxxxx						xxxxxx						13.1					
ApproachLOS:	*						*						B					

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #24 Brentwood Blvd @ Oak Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.266
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Brentwood Blvd.						Oak St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 1	0 1	0	1 0	1 0	1
Volume Module:												
Base Vol:	31	144	25	17	244	89	111	84	21	59	162	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	31	144	25	17	244	89	111	84	21	59	162	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	31	144	25	17	244	89	111	84	21	59	162	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	144	25	17	244	89	111	84	21	59	162	24
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	17
RTOR Vol:	31	144	25	17	244	89	111	84	21	59	162	7
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	31	144	25	17	244	89	111	84	21	59	162	7
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.70	0.30	1.00	1.47	0.53	1.54	1.17	0.29	1.00	1.00	1.00
Final Sat.:	1650	2812	488	1650	2418	882	2316	1922	480	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.02	0.05	0.05	0.01	0.10	0.10	0.05	0.04	0.04	0.04	0.10	0.00
Crit Volume:	31					167	72				162	
Crit Moves:	****					****	****				****	

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #25 Walnut Blvd @ Oak St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.511
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	A

Street Name:	Walnut Blvd						Oak St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	5	7	7	0	7	7	5	5	5	5	5	5
Lanes:	1 0	1 0	1	1 0	0 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	11	255	297	355	398	27	4	6	6	210	7	131
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	255	297	355	398	27	4	6	6	210	7	131
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	255	297	355	398	27	4	6	6	210	7	131
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	255	297	355	398	27	4	6	6	210	7	131
RTOR Reduct:	0	0	210	0	0	0	0	0	0	0	0	131
RTOR Vol:	11	255	87	355	398	27	4	6	6	210	7	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	11	255	87	355	398	27	4	6	6	210	7	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.94	0.06	0.25	0.37	0.38	0.97	0.03	1.00
Final Sat.:	1650	1650	1650	1650	1545	105	413	619	619	1597	53	1650
Capacity Analysis Module:												
Vol/Sat:	0.01	0.15	0.05	0.22	0.26	0.26	0.01	0.01	0.01	0.13	0.13	0.00
Crit Volume:		255		355				16			217	
Crit Moves:		****		****				****			****	

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #26 Brentwood Blvd. @ Second St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.234
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	25	Level Of Service:	A

Street Name:	Brentwood Blvd.						Second St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	48	234	3	121	338	24	46	203	65	29	264	174
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	48	234	3	121	338	24	46	203	65	29	264	174
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	48	234	3	121	338	24	46	203	65	29	264	174
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	234	3	121	338	24	46	203	65	29	264	174
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	121
RTOR Vol:	48	234	3	121	338	24	46	203	65	29	264	53
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	48	234	3	121	338	24	46	203	65	29	264	53
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.97	0.03	1.00	1.87	0.13	1.00	1.51	0.49	1.00	2.00	1.00
Final Sat.:	1720	3396	44	1720	3212	228	1720	2606	834	1720	3440	1720
Capacity Analysis Module:												
Vol/Sat:	0.03	0.07	0.07	0.07	0.11	0.11	0.03	0.08	0.08	0.02	0.08	0.03
Crit Volume:		118		121				134		29		
Crit Moves:		****		****				****		****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #27 Brentwood Blvd. @ Chestnut St.

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: B[11.9]

Street Name:	Brentwood Blvd.						Chestnut St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	215	9	19	396	0	0	0	0	16	0	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	215	9	19	396	0	0	0	0	16	0	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	215	9	19	396	0	0	0	0	16	0	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	215	9	19	396	0	0	0	0	16	0	14
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	224	xxxx	xxxxx	xxxx	xxxx	xxxxx	654	654	220
Potent Cap.:	xxxx	xxxx	xxxxx	1299	xxxx	xxxxx	xxxx	xxxx	xxxxx	432	386	820
Move Cap.:	xxxx	xxxx	xxxxx	1299	xxxx	xxxxx	xxxx	xxxx	xxxxx	427	381	820
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.04	0.00	0.02
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	550	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.2	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	11.9	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			11.9		
ApproachLOS:	*			*			*			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #28 Brentwood Blvd. @ Balfour Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.442
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	A

Street Name:	Brentwood Blvd.						Balfour Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	8	10	10	6	10	10	5	5	5	4	5	5
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	1 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	173	133	18	46	255	142	176	374	324	54	304	68
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	173	133	18	46	255	142	176	374	324	54	304	68
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	173	133	18	46	255	142	176	374	324	54	304	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	173	133	18	46	255	142	176	374	324	54	304	68
RTOR Reduct:	0	0	0	0	0	142	0	0	173	0	0	0
RTOR Vol:	173	133	18	46	255	0	176	374	151	54	304	68
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	173	133	18	46	255	0	176	374	151	54	304	68
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.63	0.37
Final Sat.:	1650	3300	1650	1650	3300	1650	1650	1650	1650	1650	2697	603
Capacity Analysis Module:												
Vol/Sat:	0.10	0.04	0.01	0.03	0.08	0.00	0.11	0.23	0.09	0.03	0.11	0.11
Crit Volume:	173			128			374			54		
Crit Moves:	****			****			****			****		

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #29 Sellers Ave. @ Sunet Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.790
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	22.0
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Sellers Ave.						Sunset Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	109	318	19	31	255	57	98	178	121	6	66	26
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	109	318	19	31	255	57	98	178	121	6	66	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	109	318	19	31	255	57	98	178	121	6	66	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	109	318	19	31	255	57	98	178	121	6	66	26
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	109	318	19	31	255	57	98	178	121	6	66	26
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.24	0.72	0.04	0.09	0.74	0.17	0.25	0.45	0.30	0.06	0.67	0.27
Final Sat.:	138	402	24	49	402	90	135	245	166	26	282	111
Capacity Analysis Module:												
Vol/Sat:	0.79	0.79	0.79	0.63	0.63	0.63	0.73	0.73	0.73	0.23	0.23	0.23
Crit Moves:	****				****			****			****	
Delay/Veh:	26.9	26.9	26.9	18.3	18.3	18.3	22.4	22.4	22.4	11.8	11.8	11.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	26.9	26.9	26.9	18.3	18.3	18.3	22.4	22.4	22.4	11.8	11.8	11.8
LOS by Move:	D	D	D	C	C	C	C	C	C	B	B	B
ApproachDel:	26.9			18.3			22.4			11.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	26.9			18.3			22.4			11.8		
LOS by Appr:	D			C			C			B		
AllWayAvgQ:	2.8	2.8	2.8	1.4	1.4	1.4	2.0	2.0	2.0	0.2	0.2	0.2

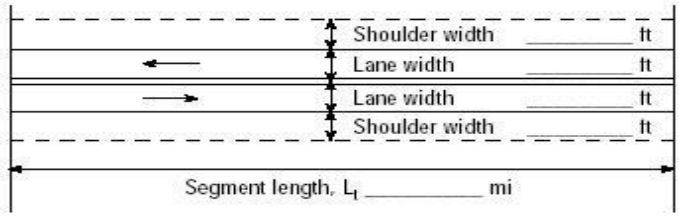
Note: Queue reported is the number of cars per lane.

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Brentwood Blvd.*
Agency or Company		From/To	*E Sims Rd. and Delta Rd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Cumulative*

Project Description:

Input Data



☑ Class I highway ☐ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*1112* veh/h
Directional split	*70 / 30*
Peak-hour factor, PHF	*0.92*
No-passing zone	*100*
% Trucks and Buses , P_T	*10 %*
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*20*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1221*
v_p * highest directional split proportion[2] (pc/h)	*855*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*40 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*40.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*2.1*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*28.5*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1209*
v_p * highest directional split proportion[2] (pc/h)	*846*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*65.4*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*10.3*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*75.8*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*E*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.38*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*91*

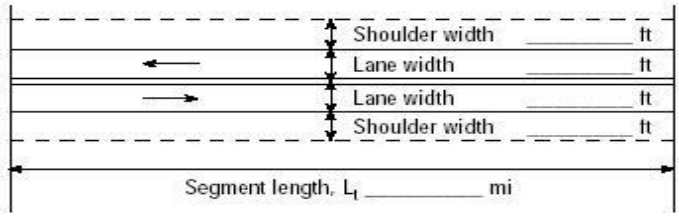
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*334*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*3.2*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Brentwood Blvd.*
Agency or Company		From/To	*E Sims Rd. and Delta Rd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Cumulative*

Project Description:

Input Data



☑ Class I highway ☐ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*1543* veh/h
Directional split	*62 / 38*
Peak-hour factor, PHF	*0.96*
No-passing zone	*100*
% Trucks and Buses , P_T	*10* %
% Recreational vehicles, P_R	*0*%
Access points/ *mi*	*20*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1623*
v_p * highest directional split proportion[2] (pc/h)	*1006*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*40 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*40.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.5*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*25.9*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1607*
v_p * highest directional split proportion[2] (pc/h)	*996*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*75.6*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*6.8*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*82.5*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*E*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.51*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*121*

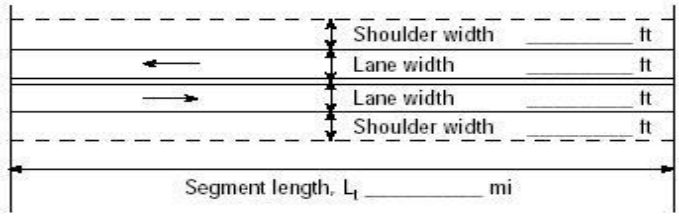
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*463*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*4.7*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Brentwood Blvd.*
Agency or Company		From/To	*Grant St. to Sunset Ct.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Cumulative*

Project Description:

Input Data



☑ Class I highway ☐ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*1680* veh/h
Directional split	*51 / 49*
Peak-hour factor, PHF	*0.97*
No-passing zone	*100*
% Trucks and Buses , P_T	*10* %
% Recreational vehicles, P_R	*0*%
Access points/ *mi*	*10*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1749*
v_p * highest directional split proportion[2] (pc/h)	*892*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.4*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*15.1*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1732*
v_p * highest directional split proportion[2] (pc/h)	*883*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*78.2*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*6.0*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*84.1*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*E*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.55*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*43*

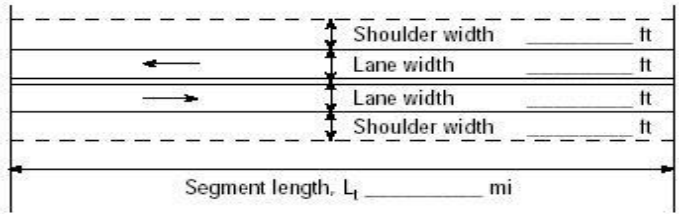
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*168*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*2.9*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Brentwood Blvd.*
Agency or Company		From/To	*Grant St. to Sunset Ct.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Cumulative*

Project Description:

Input Data



☑ Class I highway ☐ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*2308* veh/h
Directional split	*51 / 49*
Peak-hour factor, PHF	*0.90*
No-passing zone	*100*
% Trucks and Buses , P_T	*10* %
% Recreational vehicles, P_R	*0*%
Access points/ *mi*	*10*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*2590*
v_p * highest directional split proportion[2] (pc/h)	*1321*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*8.9*

Percent Time-Spent-Following

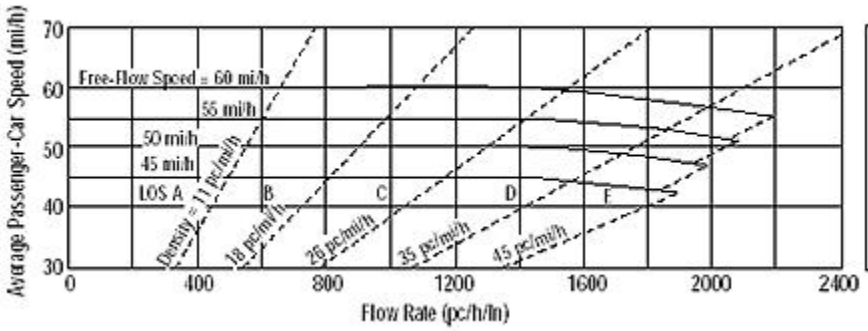
Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*2564*
v_p * highest directional split proportion[2] (pc/h)	*1308*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*89.5*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*2.5*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*92.0*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*E*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.81*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*64*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*231*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*7.2*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Central Blvd. to Spruce S
Jurisdiction	City of Brentwood
Analysis Year	Cumulative

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	289	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

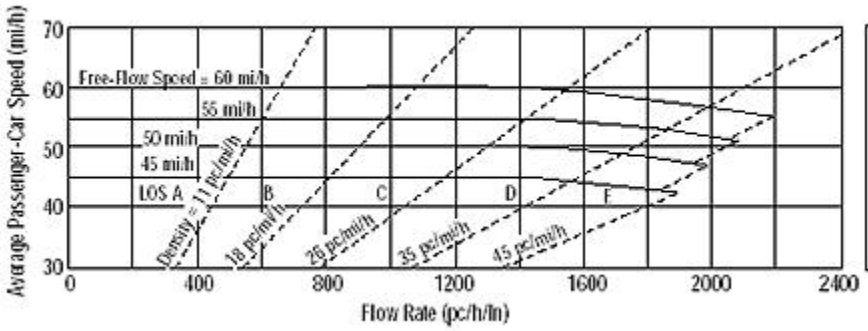
Flow Rate, v_p (pc/h/ln)	168
Speed, S (mi/h)	45.0
D (pc/mi/ln)	3.7
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Central Blvd. to Spruce S
Jurisdiction	City of Brentwood
Analysis Year	Cumulative

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	350	Peak-Hour Factor, PHF	0.95
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

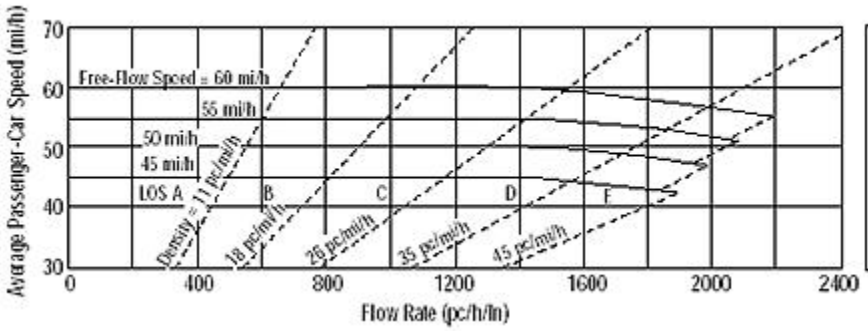
Flow Rate, v_p (pc/h/ln)	193
Speed, S (mi/h)	45.0
D (pc/mi/ln)	4.3
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Central Blvd. to Spruce S
Jurisdiction	City of Brentwood
Analysis Year	Cumulative

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	541	Peak-Hour Factor, PHF	0.78
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

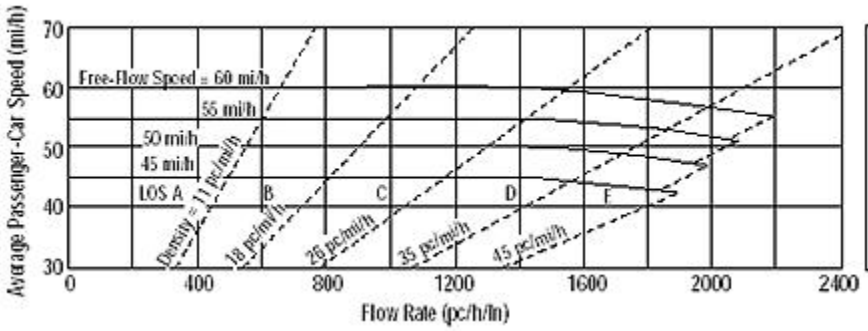
Flow Rate, v_p (pc/h/ln)	364
Speed, S (mi/h)	45.0
D (pc/mi/ln)	8.1
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Central Blvd. to Spruce S
Jurisdiction	City of Brentwood
Analysis Year	Cumulative

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	483	Peak-Hour Factor, PHF	0.99
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

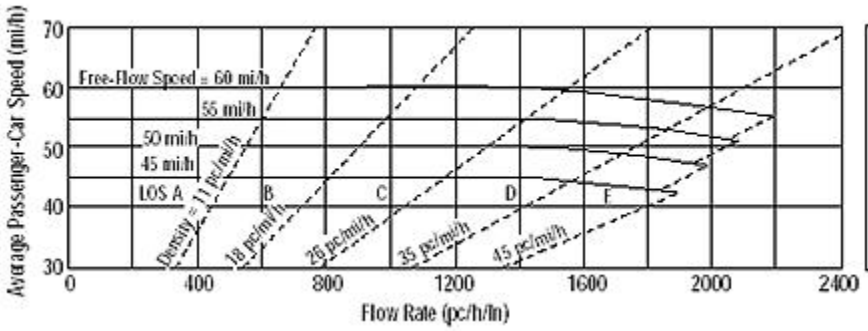
Flow Rate, v_p (pc/h/ln)	256
Speed, S (mi/h)	45.0
D (pc/mi/ln)	5.7
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Pine Ave. to Oak Ave.
Jurisdiction	City of Brentwood
Analysis Year	Cumulative

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	290	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

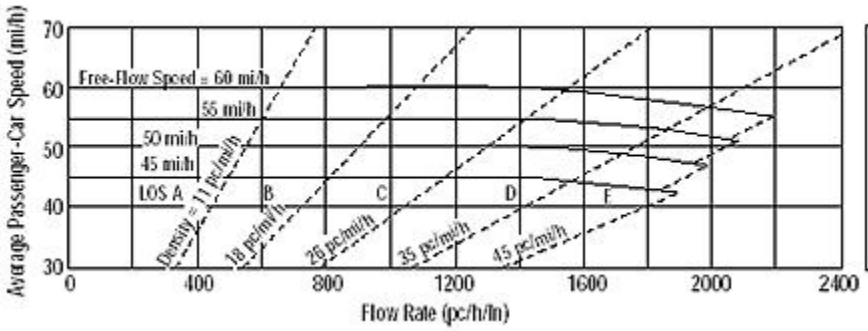
Flow Rate, v_p (pc/h/ln)	169
Speed, S (mi/h)	45.0
D (pc/mi/ln)	3.8
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Pine Ave. to Oak Ave.
Jurisdiction	City of Brentwood
Analysis Year	Cumulative

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	160	Peak-Hour Factor, PHF	0.88
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

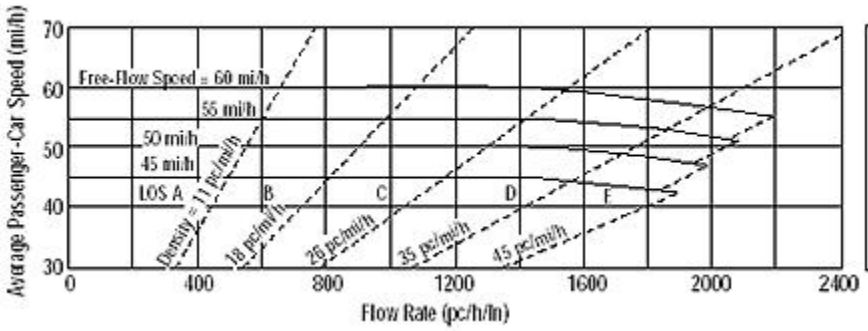
Flow Rate, v_p (pc/h/ln)	95
Speed, S (mi/h)	45.0
D (pc/mi/ln)	2.1
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Pine Ave. to Oak Ave.
Jurisdiction	City of Brentwood
Analysis Year	Cumulative

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	285	Peak-Hour Factor, PHF	0.97
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

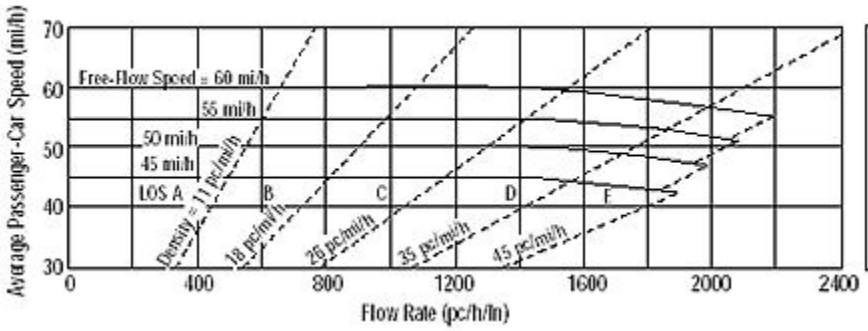
Flow Rate, v_p (pc/h/ln)	154
Speed, S (mi/h)	45.0
D (pc/mi/ln)	3.4
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Pine Ave. to Oak Ave.
Jurisdiction	City of Brentwood
Analysis Year	Cumulative

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	350	Peak-Hour Factor, PHF	0.97
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	189
Speed, S (mi/h)	45.0
D (pc/mi/ln)	4.2
LOS	A

Design

Design (N)

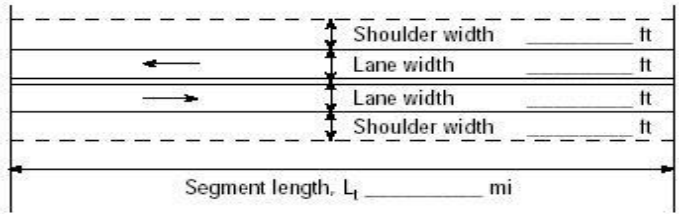
Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Delta Rd.*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Cumulative*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*662* veh/h
Directional split	*62 / 38*
Peak-hour factor, PHF	*0.76*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*40*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*875*
v_p * highest directional split proportion[2] (pc/h)	*543*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*50 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*50.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*43.2*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*873*
v_p * highest directional split proportion[2] (pc/h)	*541*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*53.6*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*53.6*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.27*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*218*

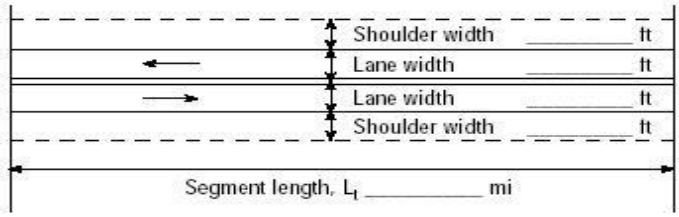
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*662*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*5.0*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Delta Rd.*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Cumulative*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*888* veh/h
Directional split	*61 / 39*
Peak-hour factor, PHF	*0.91*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*40*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*980*
v_p * highest directional split proportion[2] (pc/h)	*598*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*50 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*50.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*42.4*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*978*
v_p * highest directional split proportion[2] (pc/h)	*597*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*57.7*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*57.7*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.31*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*244*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*888*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*5.8*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

HCS2000: Multilane Highways Release 4.1d

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OPERATIONAL ANALYSIS

Analyst: Kimley-Horn and Associates
Agency/Co:
Date: 4/14/08
Analysis Period: AM Peak
Highway: Lone Tree
From/To: West of Brentwood
Jurisdiction: City of Brentwood
Analysis Year: Cumulative
Project ID:

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	50.0	mph	50.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	50.0	mph	50.0	mph

VOLUME

Direction	1		2	
Volume, V	993	vph	917	vph
Peak-hour factor, PHF	0.92		0.92	
Peak 15-minute volume, v15	270		249	
Trucks and buses	2	%	2	%
Recreational vehicles	4	%	4	%
Terrain type	Level		Level	
Grade	0.00	%	0.00	%
Segment length	0.00	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5*		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.982		0.982	
Flow rate, vp	549	pcphpl	507	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	549	pcphpl	507	pcphpl
Free-flow speed, FFS	50.0	mph	50.0	mph
Avg. passenger-car travel speed, S	50.0	mph	50.0	mph
Level of service, LOS	A		A	
Density, D	11.0-	pc/mi/ln	10.1	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

HCS2000: Multilane Highways Release 4.1d

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OPERATIONAL ANALYSIS

Analyst: Kimley-Horn and Associates
Agency/Co:
Date: 4/14/08
Analysis Period: PM Peak
Highway: Lone Tree
From/To: West of Brentwood
Jurisdiction: City of Brentwood
Analysis Year: Cumulative
Project ID:

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	50.0	mph	50.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	50.0	mph	50.0	mph

VOLUME

Direction	1		2	
Volume, V	1167	vph	1265	vph
Peak-hour factor, PHF	0.92		0.92	
Peak 15-minute volume, v15	317		344	
Trucks and buses	2	%	2	%
Recreational vehicles	4	%	4	%
Terrain type	Level		Level	
Grade	0.00	%	0.00	%
Segment length	0.00	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5*		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.982		0.982	
Flow rate, vp	645	pcphpl	699	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	645	pcphpl	699	pcphpl
Free-flow speed, FFS	50.0	mph	50.0	mph
Avg. passenger-car travel speed, S	50.0	mph	50.0	mph
Level of service, LOS	B		B	
Density, D	12.9	pc/mi/ln	14.0	pc/mi/ln

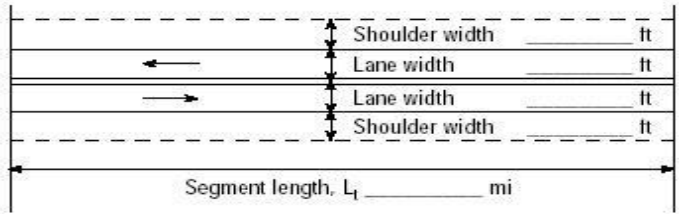
Overall results are not computed when free-flow speed is less than 45 mph.

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Sunset Ave*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Cumulative*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*616* veh/h
Directional split	*63 / 37*
Peak-hour factor, PHF	*0.88*
No-passing zone	*100*
% Trucks and Buses , P_T	*2 %*
% Recreational vehicles, P_R	*4%*
Access points/ *mi*	*20*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*703*
v_p * highest directional split proportion[2] (pc/h)	*443*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*3.4*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*21.1*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*701*
v_p * highest directional split proportion[2] (pc/h)	*442*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*46.0*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*17.6*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*63.6*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.22*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*175*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*616*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*8.3*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

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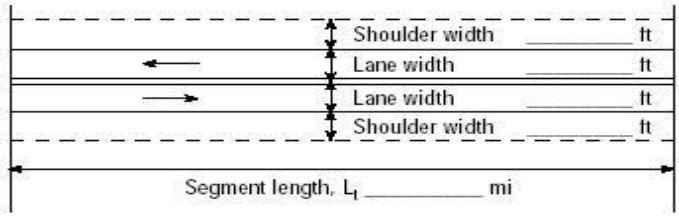
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Sunset Ave*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Cumulative*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*734* veh/h
Directional split	*61 / 39*
Peak-hour factor, PHF	*0.88*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*20*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*837*
v_p * highest directional split proportion[2] (pc/h)	*511*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*2.9*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*20.6*

Percent Time-Spent-Following

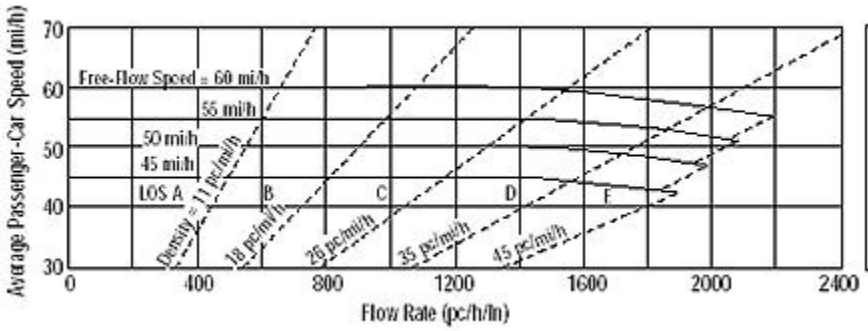
Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*836*
v_p * highest directional split proportion[2] (pc/h)	*510*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*52.0*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*14.0*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*66.1*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.26*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*209*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*734*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*10.2*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Central Blvd.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Cumulative

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	630	Peak-Hour Factor, PHF	0.86
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

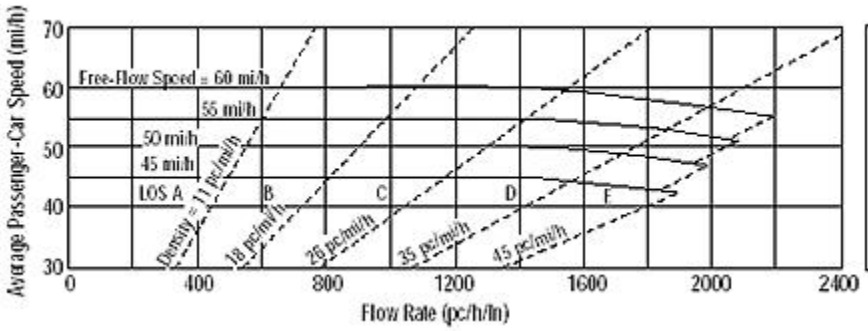
Flow Rate, v_p (pc/h/ln)	369
Speed, S (mi/h)	45.0
D (pc/mi/ln)	8.2
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Central Blvd.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Cumulative

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	393	Peak-Hour Factor, PHF	0.88
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

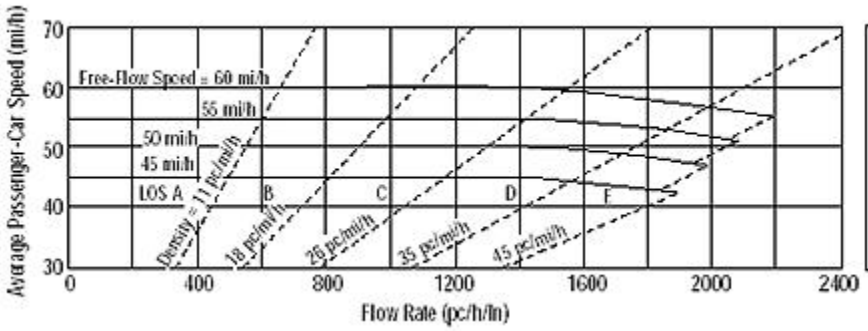
Flow Rate, v_p (pc/h/ln)	225
Speed, S (mi/h)	45.0
D (pc/mi/ln)	5.0
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Central Blvd.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Cumulative

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	539	Peak-Hour Factor, PHF	0.84
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

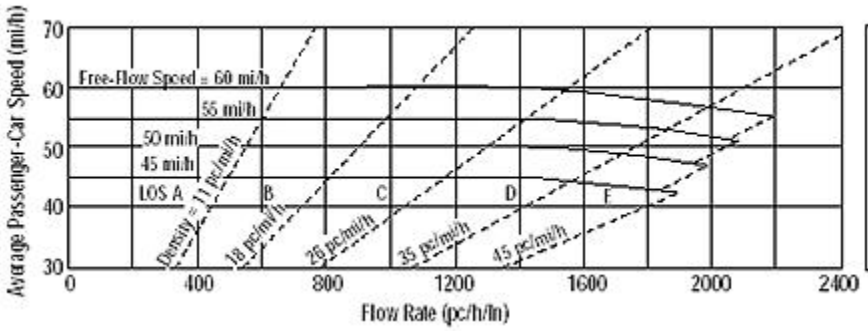
Flow Rate, v_p (pc/h/ln)	324
Speed, S (mi/h)	45.0
D (pc/mi/ln)	7.2
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Central Blvd.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Cumulative

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	945	Peak-Hour Factor, PHF	0.76
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	627
Speed, S (mi/h)	45.0
D (pc/mi/ln)	13.9
LOS	B

Design

Design (N)

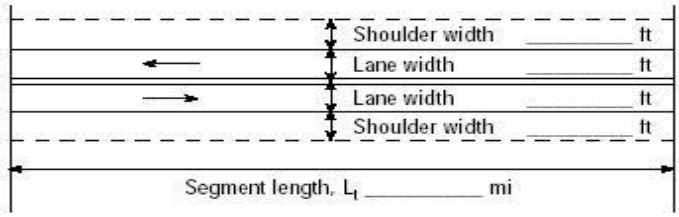
Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Grant St.*
Agency or Company		From/To	*West of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Cumulative*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*309* veh/h
Directional split	*71 / 29*
Peak-hour factor, PHF	*0.71*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*7*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*441*
v_p * highest directional split proportion[2] (pc/h)	*313*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*4.4*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*22.2*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*436*
v_p * highest directional split proportion[2] (pc/h)	*310*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*31.8*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*23.2*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*55.1*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.14*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*109*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*309*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*4.9*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

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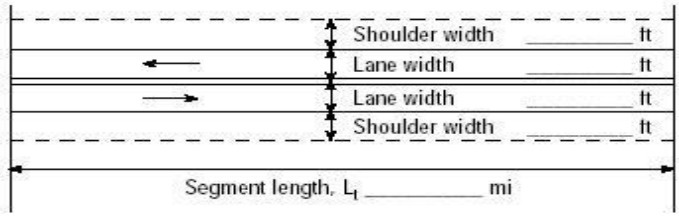
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Grant St.*
Agency or Company		From/To	*West of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Cumulative*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*247* veh/h
Directional split	*66 / 34*
Peak-hour factor, PHF	*0.87*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*7*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*288*
v_p * highest directional split proportion[2] (pc/h)	*190*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*3.9*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*23.8*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*284*
v_p * highest directional split proportion[2] (pc/h)	*187*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*22.1*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*23.9*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*46.0*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.09*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*71*

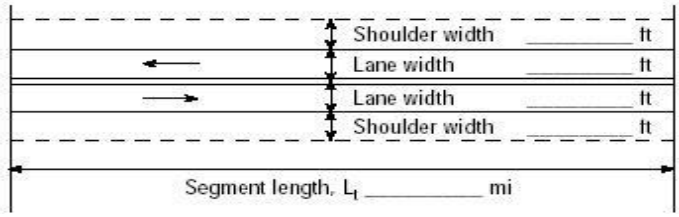
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*247*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*3.0*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Sycamore Ave.*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Cumulative*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*481* veh/h
Directional split	*74 / 26*
Peak-hour factor, PHF	*0.87*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*35*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*561*
v_p * highest directional split proportion[2] (pc/h)	*415*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*4.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*21.6*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*554*
v_p * highest directional split proportion[2] (pc/h)	*410*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*38.6*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*23.0*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*61.5*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.18*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*69*

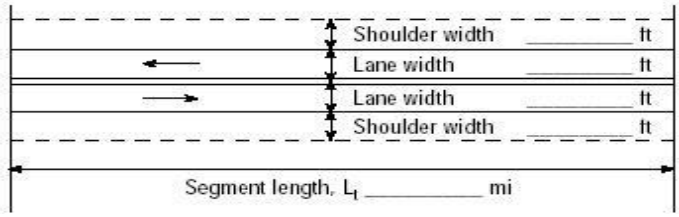
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*241*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*3.2*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Sycamore Ave.*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Cumulative*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*513* veh/h
Directional split	*69 / 31*
Peak-hour factor, PHF	*0.82*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*35*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*628*
v_p * highest directional split proportion[2] (pc/h)	*433*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*3.8*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*21.4*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*627*
v_p * highest directional split proportion[2] (pc/h)	*433*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*42.4*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*20.0*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*62.4*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.20*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*78*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*257*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*3.7*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

Appendix E:

Analysis Worksheets for
Cumulative plus Proposed Project Conditions

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Brentwood Blvd. @ Delta Road

Average Delay (sec/veh): 227.7 Worst Case Level Of Service: F[862.5]

Street Name:	Brentwood Blvd.						Delta Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			1 0 0 1 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	87	143	93	122	484	145	34	22	68	229	69	114
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	87	143	93	122	484	145	34	22	68	229	69	114
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	87	143	93	122	484	145	34	22	68	229	69	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	87	143	93	122	484	145	34	22	68	229	69	114
Critical Gap Module:												
Critical Gp:	4.2	xxxx	xxxxx	4.2	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.3	xxxx	xxxxx	2.3	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	629	xxxx	xxxxx	236	xxxx	xxxxx	1256	1211	557	1209	1237	190
Potent Cap.:	916	xxxx	xxxxx	1286	xxxx	xxxxx	148	182	530	160	176	852
Move Cap.:	916	xxxx	xxxxx	1286	xxxx	xxxxx	70	149	530	106	143	852
Volume/Cap:	0.10	xxxx	xxxx	0.09	xxxx	xxxx	0.49	0.15	0.13	2.16	0.48	0.13
Level Of Service Module:												
2Way95thQ:	0.3	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.3	xxxx	xxxxx	8.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	162	xxxxx	xxxx	149	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	4.8	xxxxx	xxxxx	37.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	76.6	xxxxx	xxxxx	863	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			76.6			862.5		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 Sellers Ave @ Delta

Cycle (sec):	100	Critical Vol./Cap.(X):	0.488
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.6
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Sellers Ave.						Delta Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	46	131	72	6	94	17	19	111	88	142	159	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	46	131	72	6	94	17	19	111	88	142	159	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	46	131	72	6	94	17	19	111	88	142	159	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	131	72	6	94	17	19	111	88	142	159	15
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	46	131	72	6	94	17	19	111	88	142	159	15
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.18	0.53	0.29	0.05	0.80	0.15	0.09	0.51	0.40	0.45	0.50	0.05
Final Sat.:	113	323	177	29	452	82	57	330	262	291	326	31
Capacity Analysis Module:												
Vol/Sat:	0.41	0.41	0.41	0.21	0.21	0.21	0.34	0.34	0.34	0.49	0.49	0.49
Crit Moves:		****			****			****			****	
Delay/Veh:	11.8	11.8	11.8	10.1	10.1	10.1	10.5	10.5	10.5	12.9	12.9	12.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.8	11.8	11.8	10.1	10.1	10.1	10.5	10.5	10.5	12.9	12.9	12.9
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	B
ApproachDel:		11.8			10.1			10.5			12.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		11.8			10.1			10.5			12.9	
LOS by Appr:		B			B			B			B	
AllWayAvgQ:	0.6	0.6	0.6	0.2	0.2	0.2	0.4	0.4	0.4	0.8	0.8	0.8

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Brentwood Blvd. @ E. Sims Road

Average Delay (sec/veh): 1.7 Worst Case Level Of Service: E[40.8]

Street Name:	Brentwood Blvd.									E. Sims Road								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1!	0	0
Volume Module:																				
Base Vol:	0	798		34		29	738		0		0		0		0	35		0		27
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	0	798		34		29	738		0		0		0		0	35		0		27
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	0	798		34		29	738		0		0		0		0	35		0		27
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
FinalVolume:	0	798		34		29	738		0		0		0		0	35		0		27
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx		4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx		6.4		6.5		6.2				
FollowUpTim:	xxxxx	xxxx	xxxxx		2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx		3.5		4.0		3.3				
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx		832	xxxx	xxxxx		xxxx	xxxx	xxxxx		1611		1611		815			
Potent Cap.:	xxxx	xxxx	xxxxx		767	xxxx	xxxxx		xxxx	xxxx	xxxxx		115		104		377			
Move Cap.:	xxxx	xxxx	xxxxx		767	xxxx	xxxxx		xxxx	xxxx	xxxxx		111		100		377			
Volume/Cap:	xxxx	xxxx	xxxx		0.04	xxxx	xxxx		xxxx	xxxx	xxxx		0.31		0.00		0.07			
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx		0.1	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx		xxxx		xxxxx			
Control Del:	xxxxx	xxxx	xxxxx		9.9	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx		xxxx		xxxxx			
LOS by Move:	*	*	*		A	*	*		*	*	*		*		*		*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx		161		xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx		0.1	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx		1.7		xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx		9.9	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx		40.8		xxxxx			
Shared LOS:	*	*	*		A	*	*		*	*	*		*		E		*			
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				40.8							
ApproachLOS:	*				*				*				E							

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #4 Brentwood Blvd @ Lone Tree Way (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.840
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	143	Level Of Service:	D

Street Name:	Brentwood Blvd						Lone Tree Way (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	1 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	609	515	77	41	407	322	325	49	535	22	17	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	609	515	77	41	407	322	325	49	535	22	17	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	609	515	77	41	407	322	325	49	535	22	17	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	609	515	77	41	407	322	325	49	535	22	17	14
RTOR Reduct:	0	0	22	0	0	0	0	0	535	0	0	14
RTOR Vol:	609	515	55	41	407	322	325	49	0	22	17	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	609	515	55	41	407	322	325	49	0	22	17	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.12	0.88	0.87	0.13	1.00	0.56	0.44	1.00
Final Sat.:	1650	1650	1650	1650	1842	1458	1434	216	1650	931	719	1650
Capacity Analysis Module:												
Vol/Sat:	0.37	0.31	0.03	0.02	0.22	0.22	0.23	0.23	0.00	0.02	0.02	0.00
Crit Volume:	609				365			374			39	
Crit Moves:	****				****			****			****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Arroyo Seco Road @ Lone Tree Way

Average Delay (sec/veh): 8.1 Worst Case Level Of Service: F[3605.0]

Street Name:	Arroyo Seco Road						Lone Tree Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0	1 0		1 0 0	1 0		1 0 0	1 0		1 1 0	1 0	
Volume Module:												
Base Vol:	40	0	2	0	0	83	473	8	140	0	3	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	40	0	2	0	0	83	473	8	140	0	3	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	40	0	2	0	0	83	473	8	140	0	3	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	40	0	2	0	0	83	473	8	140	0	3	0
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1026	1027	78	1028	1097	2	3	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	213	234	983	212	213	1083	1619	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	152	166	983	164	151	1083	1619	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.26	0.00	0.00	0.00	0.00	0.08	0.29	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	1.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.2	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	36.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	E	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	983	xxxx	xxxx	1083	xxxx	xxxx	xxxxx	1	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	0.0	xxxxx	xxxx	0.2	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	8.7	xxxxx	xxxx	8.6	xxxxx	xxxx	xxxxx	3605	xxxx	xxxxx
Shared LOS:	*	*	A	*	*	A	*	*	*	F	*	*
ApproachDel:	35.5			8.6			xxxxxx			xxxxxx		
ApproachLOS:	E			A			*			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #6 Brentwood Blvd. @ Sunrise Drive

Average Delay (sec/veh): 0.9 Worst Case Level Of Service: F[62.9]

Street Name:	Brentwood Blvd.								Sunrise Dr.							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	1 0	1	0	0	0 0	0	1	0	0 0	1!	0	0	0 0	0	0	0
Volume Module:																
Base Vol:	12 1189		0		0 966		10		14		0		17		0	
Growth Adj:	1.00 1.00	1.00		1.00	1.00 1.00	1.00			1.00 1.00	1.00			1.00	1.00		
Initial Bse:	12 1189		0		0 966		10		14		0		17		0	
User Adj:	1.00 1.00	1.00		1.00	1.00 1.00	1.00			1.00 1.00	1.00			1.00	1.00		
PHF Adj:	1.00 1.00	1.00		1.00	1.00 1.00	1.00			1.00 1.00	1.00			1.00	1.00		
PHF Volume:	12 1189		0		0 966		10		14		0		17		0	
Reduct Vol:	0 0		0		0 0		0		0		0		0		0	
FinalVolume:	12 1189		0		0 966		10		14		0		17		0	
Critical Gap Module:																
Critical Gp:	4.2 xxxx	xxxxx	xxxxx	xxxx	xxxxx				6.4	6.5			6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.3 xxxx	xxxxx	xxxxx	xxxx	xxxxx				3.5	4.0			3.3	xxxxx	xxxx	xxxxx
Capacity Module:																
Cnflict Vol:	976 xxxx	xxxxx		xxxx	xxxx	xxxxx			2184	2184			971	xxxx	xxxx	xxxxx
Potent Cap.:	676 xxxx	xxxxx		xxxx	xxxx	xxxxx			50	46			307	xxxx	xxxx	xxxxx
Move Cap.:	676 xxxx	xxxxx		xxxx	xxxx	xxxxx			50	45			307	xxxx	xxxx	xxxxx
Volume/Cap:	0.02 xxxx		xxxx		xxxx	xxxx		xxxx	0.28	0.00			0.06	xxxx	xxxx	
Level Of Service Module:																
2Way95thQ:	0.1 xxxx	xxxxx		xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Control Del:	10.4 xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx					
LOS by Move:	B	*		*		*		*		*		*		*		*
Movement:	LT - LTR - RT				LT - LTR - RT				LT - LTR - RT				LT - LTR - RT			
Shared Cap.:	xxxx xxxx	xxxxx		xxxx	xxxx	xxxxx			xxxx	92	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxxx		1.3	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxxx		62.9	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*		*		*		*		F		*		*		*
ApproachDel:	xxxxxx			xxxxxx					62.9				xxxxxx			
ApproachLOS:	*			*					F				*			

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Brentwood Blvd. @ Gregory Lane

Average Delay (sec/veh): 0.9 Worst Case Level Of Service: F[62.6]

Street Name:	Brentwood Blvd.									Gregory Ln.								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	0	1	0	1	0	0	1	0	0	0	1!	0	0	0	0	1!	0	0
Volume Module:																				
Base Vol:	10	1191		0		0	968		8		14		0		17		0		0	
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00		1.00		1.00	
Initial Bse:	10	1191		0		0	968		8		14		0		17		0		0	
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Volume:	10	1191		0		0	968		8		14		0		17		0		0	
Reduct Vol:	0	0		0		0	0		0		0		0		0		0		0	
FinalVolume:	10	1191		0		0	968		8		14		0		17		0		0	
Critical Gap Module:																				
Critical Gp:	4.2	xxxx	xxxxx	xxxxx		xxxx	xxxxx				6.4		6.5		6.2		7.1		6.5	
FollowUpTim:	2.3	xxxx	xxxxx	xxxxx		xxxx	xxxxx				3.5		4.0		3.3		3.5		4.0	
Capacity Module:																				
Cnflict Vol:	976	xxxx	xxxxx		xxxx	xxxx	xxxxx				2183		2183		972		2192		2187	
Potent Cap.:	676	xxxx	xxxxx		xxxx	xxxx	xxxxx				50		46		306		33		46	
Move Cap.:	676	xxxx	xxxxx		xxxx	xxxx	xxxxx				50		45		306		30		45	
Volume/Cap:	0.01	xxxx		xxxx		xxxx	xxxx		xxxx		0.28		0.00		0.06		0.00		0.00	
Level Of Service Module:																				
2Way95thQ:	0.0	xxxx	xxxxx		xxxx	xxxx	xxxxx				xxxx		xxxx		xxxxx		xxxx		xxxx	
Control Del:	10.4	xxxx	xxxxx		xxxxx	xxxx	xxxxx				xxxxx		xxxx		xxxxx		xxxxx		xxxx	
LOS by Move:	B	*		*		*	*		*		*		*		*		*		*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx		92		xxxxx		xxxx		0	xxxxx
SharedQueue:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx		1.3		xxxxx		xxxxx		xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx		62.6		xxxxx		xxxxx		xxxx	xxxxx
Shared LOS:	*	*		*		*	*		*		*		F		*		*		*	
ApproachDel:	xxxxxx					xxxxxx					62.6						xxxxxx			
ApproachLOS:	*					*					F						*			

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Brentwood Blvd. @ Hanson Lane

Average Delay (sec/veh): 5.6 Worst Case Level Of Service: F[160.8]

Street Name:	Brentwood Blvd.						Hanson Ln					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0	1 0		1 0 0	1 0		1 0 0	1 0		1 0 0	1 0	
Volume Module:												
Base Vol:	7	1185	14	28	948	8	18	0	17	21	0	27
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	7	1185	14	28	948	8	18	0	17	21	0	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	7	1185	14	28	948	8	18	0	17	21	0	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	7	1185	14	28	948	8	18	0	17	21	0	27
Critical Gap Module:												
Critical Gp:	4.2	xxxx	xxxxx	4.2	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.3	xxxx	xxxxx	2.3	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	956	xxxx	xxxxx	1199	xxxx	xxxxx	2228	2221	952	2223	2218	1192
Potent Cap.:	688	xxxx	xxxxx	555	xxxx	xxxxx	31	43	315	31	44	228
Move Cap.:	688	xxxx	xxxxx	555	xxxx	xxxxx	26	41	315	28	41	228
Volume/Cap:	0.01	xxxx	xxxx	0.05	xxxx	xxxx	0.70	0.00	0.05	0.75	0.00	0.12
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.2	xxxx	xxxxx	2.2	xxxx	xxxxx	2.4	xxxx	xxxxx
Control Del:	10.3	xxxx	xxxxx	11.8	xxxx	xxxxx	296.6	xxxx	xxxxx	294.5	xxxx	xxxxx
LOS by Move:	B	*	*	B	*	*	F	*	*	F	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	315	xxxx	xxxx	228
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.2	xxxxx	xxxx	0.4
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	17.1	xxxxx	xxxx	22.9
Shared LOS:	*	*	*	*	*	*	*	*	C	*	*	C
ApproachDel:	xxxxxx			xxxxxx			160.8			141.7		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Brentwood Blvd. @ Homecoming Way

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: F[58.4]

Street Name:	Brentwood Blvd.						Homecoming Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	1168	31	26	973	0	0	0	0	11	0	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1168	31	26	973	0	0	0	0	11	0	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1168	31	26	973	0	0	0	0	11	0	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1168	31	26	973	0	0	0	0	11	0	21
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1199	xxxx	xxxxx	xxxx	xxxx	xxxxx	2209	2209	1184
Potent Cap.:	xxxx	xxxx	xxxxx	555	xxxx	xxxxx	xxxx	xxxx	xxxxx	49	44	231
Move Cap.:	xxxx	xxxx	xxxxx	555	xxxx	xxxxx	xxxx	xxxx	xxxxx	47	42	231
Volume/Cap:	xxxx	xxxx	xxxx	0.05	xxxx	xxxx	xxxx	xxxx	xxxx	0.23	0.00	0.09
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	11.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	98	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.3	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	58.4	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			58.4		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #10 Brentwood Blvd. @ Grant Street / Sunset Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.768
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	98	Level Of Service:	C

Street Name:	Brentwood Blvd.						Grant Street / Sunset Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	0 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	56	690	84	95	828	77	20	30	26	159	71	130
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	56	690	84	95	828	77	20	30	26	159	71	130
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	56	690	84	95	828	77	20	30	26	159	71	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	56	690	84	95	828	77	20	30	26	159	71	130
RTOR Reduct:	0	0	84	0	0	0	0	0	0	0	0	95
RTOR Vol:	56	690	0	95	828	77	20	30	26	159	71	35
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	56	690	0	95	828	77	20	30	26	159	71	35
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.91	0.09	0.26	0.40	0.34	0.69	0.31	1.00
Final Sat.:	1650	1650	1650	1650	1510	140	434	651	564	1141	509	1650
Capacity Analysis Module:												
Vol/Sat:	0.03	0.42	0.00	0.06	0.55	0.55	0.05	0.05	0.05	0.14	0.14	0.02
Crit Volume:	56					905			76		230	
Crit Moves:	****					****			****		****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Brentwood Blvd. @ Sunset Ct.

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: C[17.7]

Street Name:	Brentwood Blvd.						Sunset Ct.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	776	177	16	763	0	0	0	0	0	0	70
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	776	177	16	763	0	0	0	0	0	0	70
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	776	177	16	763	0	0	0	0	0	0	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	776	177	16	763	0	0	0	0	0	0	70
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	953	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	865
Potent Cap.:	xxxx	xxxx	xxxxx	690	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	353
Move Cap.:	xxxx	xxxx	xxxxx	690	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	353
Volume/Cap:	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.20
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.7
Control Del:	xxxxx	xxxx	xxxxx	10.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	17.7
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	C
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			17.7		
ApproachLOS:	*			*			*			C		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Brentwood Blvd. @ Havenwood Ave.

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: D[32.4]

Street Name:	Brentwood Blvd.									Havenwood Ave.								
Approach:	North Bound						South Bound						East Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign					
Rights:	Include						Include						Include					
Lanes:	1	0	1	0	1		1	0	0	1	0		0	0	0	1	0	
Volume Module:																		
Base Vol:	6	894		31			19	815		15			0	1		18		
Growth Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
Initial Bse:	6	894		31			19	815		15			0	1		18		
User Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
PHF Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
PHF Volume:	6	894		31			19	815		15			0	1		18		
Reduct Vol:	0	0		0			0	0		0			0	0		0		
FinalVolume:	6	894		31			19	815		15			0	1		18		
Critical Gap Module:																		
Critical Gp:	4.2	xxxx	xxxxx				4.2	xxxx	xxxxx	xxxxx			6.5		6.2		7.1	
FollowUpTim:	2.3	xxxx	xxxxx				2.3	xxxx	xxxxx	xxxxx			4.0		3.3		3.5	
Capacity Module:																		
Cnflict Vol:	830	xxxx	xxxxx				925	xxxx	xxxxx		xxxx		1798		823		1776	
Potent Cap.:	768	xxxx	xxxxx				707	xxxx	xxxxx		xxxx		80		374		64	
Move Cap.:	768	xxxx	xxxxx				707	xxxx	xxxxx		xxxx		77		374		59	
Volume/Cap:	0.01	xxxx		xxxx			0.03	xxxx		xxxx			xxxx	0.01		0.05		0.12
Level Of Service Module:																		
2Way95thQ:	0.0	xxxx	xxxxx				0.1	xxxx	xxxxx		xxxx		xxxx	xxxxx		xxxx		xxxx
Control Del:	9.7	xxxx	xxxxx				10.2	xxxx	xxxxx		xxxxx		xxxx	xxxxx		xxxxx		xxxx
LOS by Move:	A	*		*			B	*		*			*	*		*		*
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx		xxxxx			xxxx	xxxx		xxxxx			xxxx	xxxx		311		xxxx
SharedQueue:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		0.2		xxxxx
Shrd ConDel:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		17.3		xxxxx
Shared LOS:	*	*		*			*	*		*			*	*		C		*
ApproachDel:	xxxxxx						xxxxxx						17.3				32.4	
ApproachLOS:	*						*						C				D	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #13 Brentwood Blvd. @ Applewood Common

Cycle (sec):	100	Critical Vol./Cap.(X):	0.657
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	66	Level Of Service:	B

Street Name:	Brentwood Blvd.						Applewood Common					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	17	969	51	23	790	9	28	4	32	56	0	35
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	17	969	51	23	790	9	28	4	32	56	0	35
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	17	969	51	23	790	9	28	4	32	56	0	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	969	51	23	790	9	28	4	32	56	0	35
RTOR Reduct:	0	0	51	0	0	0	0	0	0	0	0	0
RTOR Vol:	17	969	0	23	790	9	28	4	32	56	0	35
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	17	969	0	23	790	9	28	4	32	56	0	35
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.99	0.01	1.00	0.11	0.89	1.00	0.00	1.00
Final Sat.:	1650	1650	1650	1650	1631	19	1650	183	1467	1650	0	1650
Capacity Analysis Module:												
Vol/Sat:	0.01	0.59	0.00	0.01	0.48	0.48	0.02	0.02	0.02	0.03	0.00	0.02
Crit Volume:		969			23			36			56	
Crit Moves:		****			****			****			****	

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #14 Brentwood Blvd. @ Sand Creek Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.470
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Street Name:	Brentwood Blvd.						Sand Creek Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	0	0	0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	125	809	22	25	659	139	118	3	90	97	20	133
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	125	809	22	25	659	139	118	3	90	97	20	133
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	125	809	22	25	659	139	118	3	90	97	20	133
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	125	809	22	25	659	139	118	3	90	97	20	133
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	125	809	22	25	659	139	118	3	90	97	20	133
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	125	809	22	25	659	139	118	3	90	97	20	133
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.95	0.05	1.00	1.65	0.35	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1650	3213	87	1650	2725	575	1650	1650	1650	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.08	0.25	0.25	0.02	0.24	0.24	0.07	0.00	0.05	0.06	0.01	0.08
Crit Volume:	125					399	118					133
Crit Moves:	****					****	****					****

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #15 Brentwood Blvd. @ Technology Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.273
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	26	Level Of Service:	A

Street Name:	Brentwood Blvd.						Technology Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	6	6	0	6	6	4	4	4	0	0	0
Lanes:	1 0	2 0	0	0 0	1 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	27	929	0	0	808	11	23	0	60	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	27	929	0	0	808	11	23	0	60	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	27	929	0	0	808	11	23	0	60	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	27	929	0	0	808	11	23	0	60	0	0	0
RTOR Reduct:	0	0	0	0	0	0	0	0	27	0	0	0
RTOR Vol:	27	929	0	0	808	11	23	0	33	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	27	929	0	0	808	11	23	0	33	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.97	0.03	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1720	3440	0	0	3394	46	1720	0	1720	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.27	0.00	0.00	0.24	0.24	0.01	0.00	0.02	0.00	0.00	0.00
Crit Volume:	27				410				33	0		
Crit Moves:	****				****				****			

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #16 Brentwood Blvd @ Nancy Street (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.385
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	A

Street Name:	Brentwood Blvd						Nancy Street (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	7	7	4	7	7	0	0	0	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	27	879	34	68	751	86	55	0	17	74	0	55
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	27	879	34	68	751	86	55	0	17	74	0	55
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	27	879	34	68	751	86	55	0	17	74	0	55
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	27	879	34	68	751	86	55	0	17	74	0	55
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	27	879	34	68	751	86	55	0	17	74	0	55
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	27	879	34	68	751	86	55	0	17	74	0	55
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.93	0.07	1.00	1.79	0.21	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1650	3177	123	1650	2961	339	1650	0	1650	1650	0	1650
Capacity Analysis Module:												
Vol/Sat:	0.02	0.28	0.28	0.04	0.25	0.25	0.03	0.00	0.01	0.04	0.00	0.03
Crit Volume:		457			68			55				55
Crit Moves:		****			****			****				****

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #17 Brentwood Blvd. @ Village Drive

Average Delay (sec/veh): 1.2 Worst Case Level Of Service: D[33.1]

Street Name:	Brentwood Blvd.						Village Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	879	34	22	700	0	0	0	0	22	0	33
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	879	34	22	700	0	0	0	0	22	0	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	879	34	22	700	0	0	0	0	22	0	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	879	34	22	700	0	0	0	0	22	0	33
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	913	xxxx	xxxxx	xxxx	xxxx	xxxxx	1640	1640	896
Potent Cap.:	xxxx	xxxx	xxxxx	714	xxxx	xxxxx	xxxx	xxxx	xxxxx	110	100	339
Move Cap.:	xxxx	xxxx	xxxxx	714	xxxx	xxxxx	xxxx	xxxx	xxxxx	108	97	339
Volume/Cap:	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.20	0.00	0.10
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	10.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	182	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.2	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	33.1	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	D	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			33.1		
ApproachLOS:	*			*			*			D		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #18 Brentwood Blvd. @ Central Blvd / Sycamore Ave (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.322
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	A

Street Name:	Brentwood Blvd.						Central Blvd / Sycamore Ave (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	15	15	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	21	242	16	79	571	76	171	227	158	16	38	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	21	242	16	79	571	76	171	227	158	16	38	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	21	242	16	79	571	76	171	227	158	16	38	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	242	16	79	571	76	171	227	158	16	38	37
RTOR Reduct:	0	0	16	0	0	0	0	0	0	0	0	37
RTOR Vol:	21	242	0	79	571	76	171	227	158	16	38	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	21	242	0	79	571	76	171	227	158	16	38	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.77	0.23	1.00	1.18	0.82	1.00	1.00	1.00
Final Sat.:	1720	1720	1720	1720	3036	404	1720	2028	1412	1720	1720	1720
Capacity Analysis Module:												
Vol/Sat:	0.01	0.14	0.00	0.05	0.19	0.19	0.10	0.11	0.11	0.01	0.02	0.00
Crit Volume:	21					324		193		16		
Crit Moves:	****					****		****		****		

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #20 Central Street @ Second Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.485
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	A

Street Name:	Second Street						Central Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ignore		
Min. Green:	5	5	5	5	5	5	5	7	7	5	7	7
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	31	107	20	70	504	5	20	453	436	71	248	68
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	31	107	20	70	504	5	20	453	436	71	248	68
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	31	107	20	70	504	5	20	453	436	71	248	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	107	20	70	504	5	20	453	436	71	248	68
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	31	107	20	70	504	5	20	453	436	71	248	68
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	31	107	20	70	504	5	20	453	436	71	248	68
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.69	0.31	1.00	1.98	0.02	1.00	1.02	0.98	1.00	2.00	1.00
Final Sat.:	1650	2780	520	1650	3268	32	1650	1682	1618	1650	3300	1650
Capacity Analysis Module:												
Vol/Sat:	0.02	0.04	0.04	0.04	0.15	0.15	0.01	0.27	0.27	0.04	0.08	0.04
Crit Volume:	31					255			445	71		
Crit Moves:	****					****			****	****		

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #21 Central Blvd @ Walnut Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.456		
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx		
Optimal Cycle:	42	Level Of Service:	A		

Street Name:	Walnut Blvd						Central Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	5	7	7	5	7	7	5	7	7	5	7	7
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	66	61	468	47	18	7	45	345	131	350	130	120
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	66	61	468	47	18	7	45	345	131	350	130	120
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	66	61	468	47	18	7	45	345	131	350	130	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	61	468	47	18	7	45	345	131	350	130	120
RTOR Reduct:	0	0	350	0	0	0	0	0	0	0	0	0
RTOR Vol:	66	61	118	47	18	7	45	345	131	350	130	120
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	66	61	118	47	18	7	45	345	131	350	130	120
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.72	0.28	1.00	1.45	0.55	1.00	1.04	0.96
Final Sat.:	1650	1650	1650	1650	1188	462	1650	2392	908	1650	1716	1584
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.07	0.03	0.02	0.02	0.03	0.14	0.14	0.21	0.08	0.08
Crit Volume:			118	47				238		350		
Crit Moves:			****	****				****		****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #22 Brentwood Blvd @ Pine Street

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: A[9.6]

Street Name:	Brentwood Blvd						Pine Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1	1 0		0 1	1 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	229	51	8	182	0	0	0	0	1	0	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	229	51	8	182	0	0	0	0	1	0	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	229	51	8	182	0	0	0	0	1	0	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	229	51	8	182	0	0	0	0	1	0	3
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	280	xxxx	xxxxx	xxxx	xxxx	xxxxx	362	453	140
Potent Cap.:	xxxx	xxxx	xxxxx	1223	xxxx	xxxxx	xxxx	xxxx	xxxxx	611	501	882
Move Cap.:	xxxx	xxxx	xxxxx	1223	xxxx	xxxxx	xxxx	xxxx	xxxxx	608	498	882
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	0.00	0.00
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	793	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.0	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	9.6	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			9.6		
ApproachLOS:	*			*			*			A		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #23 Brentwood Blvd @ Maple Street

Average Delay (sec/veh): 5.0 Worst Case Level Of Service: B[11.8]

Street Name:	Brentwood Blvd						Maple Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1 0	1	0	0 1 0	1	0	0 0 0	1	0	0 0 0	1	0
Volume Module:												
Base Vol:	17 241	22		7 167	15		0 57	171		0 28	83	
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	17 241	22		7 167	15		0 57	171		0 28	83	
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	17 241	22		7 167	15		0 57	171		0 28	83	
Reduct Vol:	0 0	0		0 0	0		0 0	0		0 0	0	
FinalVolume:	17 241	22		7 167	15		0 57	171		0 28	83	
Critical Gap Module:												
Critical Gp:	4.3 xxxx xxxxx			4.3 xxxx xxxxx	xxxxx		6.5	6.9	xxxxx	6.5	6.9	
FollowUpTim:	2.3 xxxx xxxxx			2.3 xxxx xxxxx	xxxxx		4.0	3.3	xxxxx	4.0	3.3	
Capacity Module:												
Cnflict Vol:	182 xxxx xxxxx			263 xxxx xxxxx			xxxx 486	91	xxxx	482	132	
Potent Cap.:	1334 xxxx xxxxx			1242 xxxx xxxxx			xxxx 480	949	xxxx	482	894	
Move Cap.:	1334 xxxx xxxxx			1242 xxxx xxxxx			xxxx 471	949	xxxx	473	894	
Volume/Cap:	0.01 xxxx xxxx			0.01 xxxx xxxx			xxxx 0.12	0.18	xxxx	0.06	0.09	
Level Of Service Module:												
2Way95thQ:	0.0 xxxx xxxxx			0.0 xxxx xxxxx			xxxx xxxx xxxxx		xxxx	xxxx xxxxx		
Control Del:	7.7 xxxx xxxxx			7.9 xxxx xxxxx			xxxxx xxxx xxxxx		xxxxx	xxxx xxxxx		
LOS by Move:	A *	*		A *	*		* *	*	*	*	*	
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx	757	xxxx	xxxx	730	
SharedQueue:	0.0 xxxx xxxxx			0.0 xxxx xxxxx			xxxxx xxxx	1.3	xxxxx	xxxx	0.5	
Shrd ConDel:	7.7 xxxx xxxxx			7.9 xxxx xxxxx			xxxxx xxxx	11.8	xxxxx	xxxx	10.8	
Shared LOS:	A *	*		A *	*		* *	B	*	*	B	
ApproachDel:	xxxxxx			xxxxxx			11.8		10.8			
ApproachLOS:	*			*			B		B			

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #24 Brentwood Blvd @ Oak Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.168
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Brentwood Blvd.						Oak St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 1	0 1	0	1 0	1 0	1
Volume Module:												
Base Vol:	49	192	29	8	103	39	121	143	97	10	24	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	49	192	29	8	103	39	121	143	97	10	24	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	49	192	29	8	103	39	121	143	97	10	24	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	192	29	8	103	39	121	143	97	10	24	3
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	3
RTOR Vol:	49	192	29	8	103	39	121	143	97	10	24	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	49	192	29	8	103	39	121	143	97	10	24	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.74	0.26	1.00	1.45	0.55	1.00	1.19	0.81	1.00	1.00	1.00
Final Sat.:	1650	2867	433	1650	2394	906	1505	1959	1335	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.03	0.07	0.07	0.00	0.04	0.04	0.08	0.07	0.07	0.01	0.01	0.00
Crit Volume:	49				71		121				24	
Crit Moves:	****				****		****				****	

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #25 Walnut Blvd @ Oak St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.511
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	A

Street Name:	Walnut Blvd						Oak St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	5	7	7	0	7	7	5	5	5	5	5	5
Lanes:	1 0	1 0	1	1 0	0 1	0	0 1	0 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	6	262	566	273	193	4	1	1	0	112	2	49
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	262	566	273	193	4	1	1	0	112	2	49
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	262	566	273	193	4	1	1	0	112	2	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	262	566	273	193	4	1	1	0	112	2	49
RTOR Reduct:	0	0	112	0	0	0	0	0	0	0	0	49
RTOR Vol:	6	262	454	273	193	4	1	1	0	112	2	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	6	262	454	273	193	4	1	1	0	112	2	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.98	0.02	0.50	0.50	0.00	0.98	0.02	1.00
Final Sat.:	1650	1650	1650	1650	1616	34	825	825	0	1621	29	1650
Capacity Analysis Module:												
Vol/Sat:	0.00	0.16	0.28	0.17	0.12	0.12	0.00	0.00	0.00	0.07	0.07	0.00
Crit Volume:			454	273				2			114	
Crit Moves:			****	****				****			****	

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #26 Brentwood Blvd. @ Second St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.214
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	25	Level Of Service:	A

Street Name:	Brentwood Blvd.						Second St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	55	213	12	103	221	12	40	139	23	45	225	165
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	55	213	12	103	221	12	40	139	23	45	225	165
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	55	213	12	103	221	12	40	139	23	45	225	165
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	213	12	103	221	12	40	139	23	45	225	165
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	103
RTOR Vol:	55	213	12	103	221	12	40	139	23	45	225	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	55	213	12	103	221	12	40	139	23	45	225	62
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.89	0.11	1.00	1.90	0.10	1.00	1.72	0.28	1.00	2.00	1.00
Final Sat.:	1720	3257	183	1720	3263	177	1720	2952	488	1720	3440	1720
Capacity Analysis Module:												
Vol/Sat:	0.03	0.07	0.07	0.06	0.07	0.07	0.02	0.05	0.05	0.03	0.07	0.04
Crit Volume:		113			103			40			113	
Crit Moves:		****			****			****			****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #27 Brentwood Blvd. @ Chestnut St.

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: B[10.3]

Street Name:	Brentwood Blvd.						Chestnut St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	269	18	11	104	0	0	0	0	5	0	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	269	18	11	104	0	0	0	0	5	0	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	269	18	11	104	0	0	0	0	5	0	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	269	18	11	104	0	0	0	0	5	0	10
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	287	xxxx	xxxxx	xxxx	xxxx	xxxxx	404	404	278
Potent Cap.:	xxxx	xxxx	xxxxx	1231	xxxx	xxxxx	xxxx	xxxx	xxxxx	603	536	761
Move Cap.:	xxxx	xxxx	xxxxx	1231	xxxx	xxxxx	xxxx	xxxx	xxxxx	598	531	761
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	698	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	10.3	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			10.3		
ApproachLOS:	*			*			*			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #28 Brentwood Blvd. @ Balfour Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.340
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	A

Street Name:	Brentwood Blvd.						Balfour Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	8	10	10	6	10	10	5	5	5	4	5	5
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	1 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	218	299	13	8	58	45	118	162	154	30	344	49
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	218	299	13	8	58	45	118	162	154	30	344	49
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	218	299	13	8	58	45	118	162	154	30	344	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	218	299	13	8	58	45	118	162	154	30	344	49
RTOR Reduct:	0	0	0	0	0	45	0	0	154	0	0	0
RTOR Vol:	218	299	13	8	58	0	118	162	0	30	344	49
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	218	299	13	8	58	0	118	162	0	30	344	49
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.75	0.25
Final Sat.:	1650	3300	1650	1650	3300	1650	1650	1650	1650	1650	2889	411
Capacity Analysis Module:												
Vol/Sat:	0.13	0.09	0.01	0.00	0.02	0.00	0.07	0.10	0.00	0.02	0.12	0.12
Crit Volume:	218				29		118					197
Crit Moves:	****				****		****					****

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #29 Sellers Ave. @ Sunet Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.648
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	13.8
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Sellers Ave.						Sunset Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	128	291	13	10	222	83	49	65	71	18	61	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	128	291	13	10	222	83	49	65	71	18	61	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	128	291	13	10	222	83	49	65	71	18	61	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	128	291	13	10	222	83	49	65	71	18	61	22
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	128	291	13	10	222	83	49	65	71	18	61	22
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.30	0.67	0.03	0.03	0.71	0.26	0.26	0.35	0.39	0.18	0.60	0.22
Final Sat.:	197	449	20	21	464	173	149	198	216	92	313	113
Capacity Analysis Module:												
Vol/Sat:	0.65	0.65	0.65	0.48	0.48	0.48	0.33	0.33	0.33	0.19	0.19	0.19
Crit Moves:	****				****			****			****	
Delay/Veh:	16.7	16.7	16.7	12.5	12.5	12.5	11.2	11.2	11.2	10.3	10.3	10.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	16.7	16.7	16.7	12.5	12.5	12.5	11.2	11.2	11.2	10.3	10.3	10.3
LOS by Move:	C	C	C	B	B	B	B	B	B	B	B	B
ApproachDel:	16.7			12.5			11.2			10.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	16.7			12.5			11.2			10.3		
LOS by Appr:	C			B			B			B		
AllWayAvgQ:	1.6	1.6	1.6	0.8	0.8	0.8	0.4	0.4	0.4	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Brentwood Blvd. @ Delta Road

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Brentwood Blvd.						Delta Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			1 0 0 1 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	126	480	326	144	346	87	131	89	92	104	39	148
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	126	480	326	144	346	87	131	89	92	104	39	148
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	126	480	326	144	346	87	131	89	92	104	39	148
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	126	480	326	144	346	87	131	89	92	104	39	148
Critical Gap Module:												
Critical Gp:	4.2	xxxx	xxxxx	4.2	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.3	xxxx	xxxxx	2.3	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	433	xxxx	xxxxx	806	xxxx	xxxxx	1666	1736	390	1663	1616	643
Potent Cap.:	1085	xxxx	xxxxx	785	xxxx	xxxxx	77	87	659	77	104	473
Move Cap.:	1085	xxxx	xxxxx	785	xxxx	xxxxx	25	63	659	0	74	473
Volume/Cap:	0.12	xxxx	xxxx	0.18	xxxx	xxxx	5.31	1.42	0.14	xxxx	0.53	0.31
Level Of Service Module:												
2Way95thQ:	0.4	xxxx	xxxxx	0.7	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	8.8	xxxx	xxxxx	10.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	45	xxxxx	xxxx	0	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	36.5	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2815	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			2814.7			xxxxxx		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 Sellers Ave @ Delta

Cycle (sec):	100	Critical Vol./Cap.(X):	0.822
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	21.1
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Sellers Ave.						Delta Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	92	237	42	4	49	5	95	285	153	47	107	34
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	92	237	42	4	49	5	95	285	153	47	107	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	92	237	42	4	49	5	95	285	153	47	107	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	237	42	4	49	5	95	285	153	47	107	34
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	92	237	42	4	49	5	95	285	153	47	107	34
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.25	0.64	0.11	0.07	0.84	0.09	0.18	0.53	0.29	0.25	0.57	0.18
Final Sat.:	140	361	64	32	393	40	116	347	186	137	313	99
Capacity Analysis Module:												
Vol/Sat:	0.66	0.66	0.66	0.12	0.12	0.12	0.82	0.82	0.82	0.34	0.34	0.34
Crit Moves:		****			****			****			****	
Delay/Veh:	18.8	18.8	18.8	10.6	10.6	10.6	27.2	27.2	27.2	11.8	11.8	11.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	18.8	18.8	18.8	10.6	10.6	10.6	27.2	27.2	27.2	11.8	11.8	11.8
LOS by Move:	C	C	C	B	B	B	D	D	D	B	B	B
ApproachDel:		18.8			10.6			27.2			11.8	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		18.8			10.6			27.2			11.8	
LOS by Appr:		C			B			D			B	
AllWayAvgQ:	1.5	1.5	1.5	0.1	0.1	0.1	3.4	3.4	3.4	0.4	0.4	0.4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Brentwood Blvd. @ E. Sims Road

Average Delay (sec/veh): 14.9 Worst Case Level Of Service: F[166.7]

Street Name:	Brentwood Blvd.						E. Sims Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	1007	28	25	531	0	0	0	0	104	0	50
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1007	28	25	531	0	0	0	0	104	0	50
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1007	28	25	531	0	0	0	0	104	0	50
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1007	28	25	531	0	0	0	0	104	0	50
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1035	xxxx	xxxxx	xxxx	xxxx	xxxxx	1602	1602	1021
Potent Cap.:	xxxx	xxxx	xxxxx	642	xxxx	xxxxx	xxxx	xxxx	xxxxx	116	106	287
Move Cap.:	xxxx	xxxx	xxxxx	642	xxxx	xxxxx	xxxx	xxxx	xxxxx	113	102	287
Volume/Cap:	xxxx	xxxx	xxxx	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	0.92	0.00	0.17
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	10.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	141	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.5	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	10.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	167	xxxxx
Shared LOS:	*	*	*	B	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			166.7		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #4 Brentwood Blvd @ Lone Tree Way (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.103
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Brentwood Blvd						Lone Tree Way (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	1 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	678	565	41	22	551	486	468	26	645	100	29	35
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	678	565	41	22	551	486	468	26	645	100	29	35
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	678	565	41	22	551	486	468	26	645	100	29	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	678	565	41	22	551	486	468	26	645	100	29	35
RTOR Reduct:	0	0	41	0	0	0	0	0	645	0	0	22
RTOR Vol:	678	565	0	22	551	486	468	26	0	100	29	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	678	565	0	22	551	486	468	26	0	100	29	13
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.06	0.94	0.95	0.05	1.00	0.78	0.22	1.00
Final Sat.:	1650	1650	1650	1650	1753	1547	1563	87	1650	1279	371	1650
Capacity Analysis Module:												
Vol/Sat:	0.41	0.34	0.00	0.01	0.31	0.31	0.30	0.30	0.00	0.08	0.08	0.01
Crit Volume:	678					519		494			129	
Crit Moves:	****					****		****			****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Arroyo Seco Road @ Lone Tree Way

Average Delay (sec/veh): 9.0 Worst Case Level Of Service: F[3605.0]

Street Name:	Arroyo Seco Road						Lone Tree Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	0 1	0	1 1	0 1	0
Volume Module:												
Base Vol:	65	0	2	0	0	423	106	6	90	0	1	0
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	65	0	2	0	0	423	106	6	90	0	1	0
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	65	0	2	0	0	423	106	6	90	0	1	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	65	0	2	0	0	423	106	6	90	0	1	0
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	264	264	51	265	309	1	1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	689	641	1017	688	605	1084	1622	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	399	599	1017	652	566	1084	1622	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.16	0.00	0.00	0.00	0.00	0.39	0.07	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.6	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	15.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	C	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	1017	xxxx	xxxx	1084	xxxx	xxxx	xxxxx	1	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	0.0	xxxxx	xxxx	1.9	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	8.5	xxxxx	xxxx	10.4	xxxxx	xxxx	xxxxx	3605	xxxx	xxxxx
Shared LOS:	*	*	A	*	*	B	*	*	*	F	*	*
ApproachDel:	15.5			10.4			xxxxxx			xxxxxx		
ApproachLOS:	C			B			*			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #6 Brentwood Blvd. @ Sunrise Drive

Average Delay (sec/veh): 10.9 Worst Case Level Of Service: F[550.1]

Street Name:	Brentwood Blvd.						Sunrise Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 1	0 0		0 0 0	1 0		0 0 1!	0 0		0 0 0	0 0	
Volume Module:												
Base Vol:	32	1251	0	0	1434	33	29	0	26	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	32	1251	0	0	1434	33	29	0	26	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	32	1251	0	0	1434	33	29	0	26	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	32	1251	0	0	1434	33	29	0	26	0	0	0
Critical Gap Module:												
Critical Gp:	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1467	xxxx	xxxxx	xxxx	xxxx	xxxxx	2766	2766	1451	xxxx	xxxx	xxxxx
Potent Cap.:	437	xxxx	xxxxx	xxxx	xxxx	xxxxx	21	19	160	xxxx	xxxx	xxxxx
Move Cap.:	437	xxxx	xxxxx	xxxx	xxxx	xxxxx	20	18	160	xxxx	xxxx	xxxxx
Volume/Cap:	0.07	xxxx	xxxx	xxxx	xxxx	xxxx	1.44	0.00	0.16	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	13.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	B	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	34	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	6.0	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	550	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			550.1			xxxxxx		
ApproachLOS:	*			*			F			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Brentwood Blvd. @ Gregory Lane

Average Delay (sec/veh): 9.0 Worst Case Level Of Service: F[455.7]

Street Name:	Brentwood Blvd.						Gregory Ln.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0	0 1	0	1 0	0 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	21	1262	0	0	1396	71	27	0	28	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	21	1262	0	0	1396	71	27	0	28	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	21	1262	0	0	1396	71	27	0	28	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	21	1262	0	0	1396	71	27	0	28	0	0	0
Critical Gap Module:												
Critical Gp:	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	1467	xxxx	xxxxx	xxxx	xxxx	xxxxx	2736	2736	1432	2750	2771	1262
Potent Cap.:	437	xxxx	xxxxx	xxxx	xxxx	xxxxx	22	20	165	13	19	207
Move Cap.:	437	xxxx	xxxxx	xxxx	xxxx	xxxxx	22	19	165	10	18	207
Volume/Cap:	0.05	xxxx	xxxx	xxxx	xxxx	xxxx	1.25	0.00	0.17	0.00	0.00	0.00
Level Of Service Module:												
2Way95thQ:	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	13.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	B	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	39	xxxxx	xxxx	0	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	5.7	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	456	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			455.7			xxxxxx		
ApproachLOS:	*			*			F			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Brentwood Blvd. @ Hanson Lane

Average Delay (sec/veh): 40.2 Worst Case Level Of Service: F[1336.6]

Street Name:	Brentwood Blvd.						Hanson Ln					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 1 0			1 0 0 1 0			1 0 0 1 0			1 0 0 1 0		
Volume Module:												
Base Vol:	20	1299	18	48	1419	22	17	0	16	37	0	31
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	20	1299	18	48	1419	22	17	0	16	37	0	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	20	1299	18	48	1419	22	17	0	16	37	0	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	20	1299	18	48	1419	22	17	0	16	37	0	31
Critical Gap Module:												
Critical Gp:	4.2	xxxx	xxxxx	4.2	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.3	xxxx	xxxxx	2.3	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	1441	xxxx	xxxxx	1317	xxxx	xxxxx	2890	2883	1430	2882	2885	1308
Potent Cap.:	447	xxxx	xxxxx	499	xxxx	xxxxx	10	16	165	10	16	195
Move Cap.:	447	xxxx	xxxxx	499	xxxx	xxxxx	8	14	165	8	14	195
Volume/Cap:	0.04	xxxx	xxxx	0.10	xxxx	xxxx	2.23	0.00	0.10	4.46	0.00	0.16
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxx	0.3	xxxx	xxxxx	3.2	xxxx	xxxxx	5.9	xxxx	xxxxx
Control Del:	13.4	xxxx	xxxxx	13.0	xxxx	xxxxx	1496	xxxx	xxxxx	2434	xxxx	xxxxx
LOS by Move:	B	*	*	B	*	*	F	*	*	F	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	165	xxxx	xxxx	195
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.3	xxxxx	xxxx	0.6
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	29.1	xxxxx	xxxx	26.9
Shared LOS:	*	*	*	*	*	*	*	*	D	*	*	D
ApproachDel:	xxxxxx			xxxxxx			784.6			1336.6		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Brentwood Blvd. @ Homecoming Way

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: F[133.5]

Street Name:	Brentwood Blvd.						Homecoming Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	1304	13	14	1472	0	0	0	0	4	0	4
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1304	13	14	1472	0	0	0	0	4	0	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1304	13	14	1472	0	0	0	0	4	0	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1304	13	14	1472	0	0	0	0	4	0	4
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1317	xxxx	xxxxx	xxxx	xxxx	xxxxx	2811	2811	1311
Potent Cap.:	xxxx	xxxx	xxxxx	499	xxxx	xxxxx	xxxx	xxxx	xxxxx	20	18	194
Move Cap.:	xxxx	xxxx	xxxxx	499	xxxx	xxxxx	xxxx	xxxx	xxxxx	20	18	194
Volume/Cap:	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.20	0.00	0.02
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	12.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	36	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.7	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	134	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			133.5		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #10 Brentwood Blvd. @ Grant Street / Sunset Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	1.015
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Brentwood Blvd.						Grant Street / Sunset Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	0 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	35	907	93	128	1323	34	15	44	20	136	68	144
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	35	907	93	128	1323	34	15	44	20	136	68	144
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	35	907	93	128	1323	34	15	44	20	136	68	144
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	907	93	128	1323	34	15	44	20	136	68	144
RTOR Reduct:	0	0	93	0	0	0	0	0	0	0	0	128
RTOR Vol:	35	907	0	128	1323	34	15	44	20	136	68	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	35	907	0	128	1323	34	15	44	20	136	68	16
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.97	0.03	0.19	0.56	0.25	0.67	0.33	1.00
Final Sat.:	1650	1650	1650	1650	1609	41	313	919	418	1100	550	1650
Capacity Analysis Module:												
Vol/Sat:	0.02	0.55	0.00	0.08	0.82	0.82	0.05	0.05	0.05	0.12	0.12	0.01
Crit Volume:	35					1357		79			204	
Crit Moves:	****					****		****			****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Brentwood Blvd. @ Sunset Ct.

Average Delay (sec/veh): 2.7 Worst Case Level Of Service: E[40.2]

Street Name:	Brentwood Blvd.						Sunset Ct.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	1004	177	7	1110	0	0	0	0	0	0	166
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1004	177	7	1110	0	0	0	0	0	0	166
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1004	177	7	1110	0	0	0	0	0	0	166
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1004	177	7	1110	0	0	0	0	0	0	166
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1181	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	1093
Potent Cap.:	xxxx	xxxx	xxxxx	564	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	261
Move Cap.:	xxxx	xxxx	xxxxx	564	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	261
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.64
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	3.9
Control Del:	xxxxx	xxxx	xxxxx	11.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	40.2
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	E
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			40.2		
ApproachLOS:	*			*			*			E		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Brentwood Blvd. @ Havenwood Ave.

Average Delay (sec/veh): 8.6 Worst Case Level Of Service: F[513.5]

Street Name:	Brentwood Blvd.						Havenwood Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0	1 0	1	1 0	0 1	0	0 0	0 0	1	0 0	1! 0	0
Volume Module:												
Base Vol:	6	1173	28	18	1263	13	0	0	5	25	0	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	1173	28	18	1263	13	0	0	5	25	0	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	1173	28	18	1263	13	0	0	5	25	0	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	6	1173	28	18	1263	13	0	0	5	25	0	17
Critical Gap Module:												
Critical Gp:	4.2	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	6.2	7.1	6.5	6.2
FollowUpTim:	2.3	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	1276	xxxx	xxxxx	1201	xxxx	xxxxx	xxxx	xxxx	1270	2493	2497	1173
Potent Cap.:	518	xxxx	xxxxx	554	xxxx	xxxxx	xxxx	xxxx	205	20	29	234
Move Cap.:	518	xxxx	xxxxx	554	xxxx	xxxxx	xxxx	xxxx	205	19	28	234
Volume/Cap:	0.01	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	0.02	1.34	0.00	0.07
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	0.1	xxxx	xxxx	xxxxx
Control Del:	12.0	xxxx	xxxxx	11.7	xxxx	xxxxx	xxxxx	xxxx	23.0	xxxxx	xxxx	xxxxx
LOS by Move:	B	*	*	B	*	*	*	*	C	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	30	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	4.8	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	514	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			23.0			513.5		
ApproachLOS:	*			*			C			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #13 Brentwood Blvd. @ Applewood Common

Cycle (sec):	100	Critical Vol./Cap.(X):	0.810
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	120	Level Of Service:	D

Street Name:	Brentwood Blvd.						Applewood Common					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	9	1150	48	25	1249	9	12	0	18	58	5	28
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	1150	48	25	1249	9	12	0	18	58	5	28
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	9	1150	48	25	1249	9	12	0	18	58	5	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	1150	48	25	1249	9	12	0	18	58	5	28
RTOR Reduct:	0	0	48	0	0	0	0	0	0	0	0	0
RTOR Vol:	9	1150	0	25	1249	9	12	0	18	58	5	28
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	9	1150	0	25	1249	9	12	0	18	58	5	28
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.99	0.01	1.00	0.00	1.00	1.00	0.15	0.85
Final Sat.:	1650	1650	1650	1650	1638	12	1650	0	1650	1650	250	1400
Capacity Analysis Module:												
Vol/Sat:	0.01	0.70	0.00	0.02	0.76	0.76	0.01	0.00	0.01	0.04	0.02	0.02
Crit Volume:	9					1258	12			58		
Crit Moves:	****					****	****			****		

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #14 Brentwood Blvd. @ Sand Creek Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.770
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	81	Level Of Service:	C

Street Name:	Brentwood Blvd.						Sand Creek Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	0	0	0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	250	870	71	79	1056	277	143	12	157	197	52	180
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	250	870	71	79	1056	277	143	12	157	197	52	180
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	250	870	71	79	1056	277	143	12	157	197	52	180
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	250	870	71	79	1056	277	143	12	157	197	52	180
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	250	870	71	79	1056	277	143	12	157	197	52	180
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	250	870	71	79	1056	277	143	12	157	197	52	180
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.85	0.15	1.00	1.58	0.42	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1650	3051	249	1650	2614	686	1650	1650	1650	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.15	0.29	0.29	0.05	0.40	0.40	0.09	0.01	0.10	0.12	0.03	0.11
Crit Volume:	250				667				157	197		
Crit Moves:	****				****				****	****		

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #15 Brentwood Blvd. @ Technology Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.423
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	A

Street Name:	Brentwood Blvd.						Technology Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	6	6	0	6	6	4	4	4	0	0	0
Lanes:	1 0	2 0	0	0 0	1 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	42	1149	0	0	1323	21	14	0	63	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	42	1149	0	0	1323	21	14	0	63	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	42	1149	0	0	1323	21	14	0	63	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	1149	0	0	1323	21	14	0	63	0	0	0
RTOR Reduct:	0	0	0	0	0	0	0	0	42	0	0	0
RTOR Vol:	42	1149	0	0	1323	21	14	0	21	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	42	1149	0	0	1323	21	14	0	21	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.97	0.03	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1720	3440	0	0	3386	54	1720	0	1720	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.33	0.00	0.00	0.39	0.39	0.01	0.00	0.01	0.00	0.00	0.00
Crit Volume:	42				672		14				0	
Crit Moves:	****				****		****					

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #16 Brentwood Blvd @ Nancy Street (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.542
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	A

Street Name:	Brentwood Blvd						Nancy Street (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	7	7	4	7	7	0	0	0	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	20	1019	46	113	1231	62	92	0	29	130	0	135
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	20	1019	46	113	1231	62	92	0	29	130	0	135
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	20	1019	46	113	1231	62	92	0	29	130	0	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	1019	46	113	1231	62	92	0	29	130	0	135
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	20	1019	46	113	1231	62	92	0	29	130	0	135
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	1019	46	113	1231	62	92	0	29	130	0	135
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.91	0.09	1.00	1.90	0.10	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1650	3157	143	1650	3142	158	1650	0	1650	1650	0	1650
Capacity Analysis Module:												
Vol/Sat:	0.01	0.32	0.32	0.07	0.39	0.39	0.06	0.00	0.02	0.08	0.00	0.08
Crit Volume:	20			647			92			135		
Crit Moves:	****			****			****			****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #17 Brentwood Blvd. @ Village Drive

Average Delay (sec/veh): 13.0 Worst Case Level Of Service: F[352.5]

Street Name:	Brentwood Blvd.						Village Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	999	65	32	1253	0	0	0	0	47	0	42
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	999	65	32	1253	0	0	0	0	47	0	42
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	999	65	32	1253	0	0	0	0	47	0	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	999	65	32	1253	0	0	0	0	47	0	42
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1064	xxxx	xxxxx	xxxx	xxxx	xxxxx	2349	2349	1032
Potent Cap.:	xxxx	xxxx	xxxxx	625	xxxx	xxxxx	xxxx	xxxx	xxxxx	40	36	283
Move Cap.:	xxxx	xxxx	xxxxx	625	xxxx	xxxxx	xxxx	xxxx	xxxxx	38	34	283
Volume/Cap:	xxxx	xxxx	xxxx	0.05	xxxx	xxxx	xxxx	xxxx	xxxx	1.23	0.00	0.15
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	11.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	64	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	7.5	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	352	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			352.5		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #18 Brentwood Blvd. @ Central Blvd / Sycamore Ave (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.520
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	A

Street Name:	Brentwood Blvd.						Central Blvd / Sycamore Ave (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	15	15	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 0	1	1 0	1	1 0	1 0	1	0	1 0	1	0 1
Volume Module:												
Base Vol:	36	460	34	138	986	134	254	158	89	16	45	50
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	36	460	34	138	986	134	254	158	89	16	45	50
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	36	460	34	138	986	134	254	158	89	16	45	50
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	460	34	138	986	134	254	158	89	16	45	50
RTOR Reduct:	0	0	16	0	0	0	0	0	0	0	0	50
RTOR Vol:	36	460	18	138	986	134	254	158	89	16	45	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	460	18	138	986	134	254	158	89	16	45	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.76	0.24	1.00	1.28	0.72	1.00	1.00	1.00
Final Sat.:	1720	1720	1720	1720	3028	412	1720	2200	1240	1720	1720	1720
Capacity Analysis Module:												
Vol/Sat:	0.02	0.27	0.01	0.08	0.33	0.33	0.15	0.07	0.07	0.01	0.03	0.00
Crit Volume:	36			560			254			45		
Crit Moves:	****			****			****			****		

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #20 Central Street @ Second Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.478
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	A

Street Name:	Second Street						Central Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ignore		
Min. Green:	5	5	5	5	5	5	5	7	7	5	7	7
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	61	241	61	72	280	7	52	615	234	142	518	218
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	61	241	61	72	280	7	52	615	234	142	518	218
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	61	241	61	72	280	7	52	615	234	142	518	218
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	61	241	61	72	280	7	52	615	234	142	518	218
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	0
RTOR Vol:	61	241	61	72	280	7	52	615	234	142	518	218
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	61	241	61	72	280	7	52	615	234	142	518	218
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.60	0.40	1.00	1.95	0.05	1.00	1.45	0.55	1.00	2.00	1.00
Final Sat.:	1650	2633	667	1650	3220	80	1650	2390	910	1650	3300	1650
Capacity Analysis Module:												
Vol/Sat:	0.04	0.09	0.09	0.04	0.09	0.09	0.03	0.26	0.26	0.09	0.16	0.13
Crit Volume:			151	72				425		142		
Crit Moves:			****	****				****		****		

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #21 Central Blvd @ Walnut Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.519
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	A

Street Name:	Walnut Blvd						Central Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	5	7	7	5	7	7	5	7	7	5	7	7
Lanes:	1 0	1 0	1	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	223	40	309	94	67	27	20	152	132	384	939	100
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	223	40	309	94	67	27	20	152	132	384	939	100
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	223	40	309	94	67	27	20	152	132	384	939	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	223	40	309	94	67	27	20	152	132	384	939	100
RTOR Reduct:	0	0	309	0	0	0	0	0	0	0	0	0
RTOR Vol:	223	40	0	94	67	27	20	152	132	384	939	100
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	223	40	0	94	67	27	20	152	132	384	939	100
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.71	0.29	1.00	1.07	0.93	1.00	1.81	0.19
Final Sat.:	1650	1650	1650	1650	1176	474	1650	1766	1534	1650	2982	318
Capacity Analysis Module:												
Vol/Sat:	0.14	0.02	0.00	0.06	0.06	0.06	0.01	0.09	0.09	0.23	0.31	0.31
Crit Volume:	223			94			20			520		
Crit Moves:	****			****			****			****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #22 Brentwood Blvd @ Pine Street

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: A[9.7]

Street Name:	Brentwood Blvd						Pine Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1	1 0		0 1	1 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	263	7	8	307	0	0	0	0	3	0	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	263	7	8	307	0	0	0	0	3	0	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	263	7	8	307	0	0	0	0	3	0	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	263	7	8	307	0	0	0	0	3	0	10
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	270	xxxx	xxxxx	xxxx	xxxx	xxxxx	436	590	135
Potent Cap.:	xxxx	xxxx	xxxxx	1234	xxxx	xxxxx	xxxx	xxxx	xxxxx	549	419	889
Move Cap.:	xxxx	xxxx	xxxxx	1234	xxxx	xxxxx	xxxx	xxxx	xxxxx	546	416	889
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	776	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	9.7	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			9.7		
ApproachLOS:	*			*			*			A		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #23 Brentwood Blvd @ Maple Street

Average Delay (sec/veh): 4.4 Worst Case Level Of Service: B[12.6]

Street Name:	Brentwood Blvd						Maple Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1 0	1	0	0 1 0	1	0	0 0 0	1	0	0 0 0	1	0
Volume Module:												
Base Vol:	22 238	11		8 278	32		0 50	149		0 26	77	
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	22 238	11		8 278	32		0 50	149		0 26	77	
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	22 238	11		8 278	32		0 50	149		0 26	77	
Reduct Vol:	0 0	0		0 0	0		0 0	0		0 0	0	
FinalVolume:	22 238	11		8 278	32		0 50	149		0 26	77	
Critical Gap Module:												
Critical Gp:	4.3 xxxx xxxxx			4.3 xxxx xxxxx	xxxxx		6.5	6.9	xxxxx	6.5	6.9	
FollowUpTim:	2.3 xxxx xxxxx			2.3 xxxx xxxxx	xxxxx		4.0	3.3	xxxxx	4.0	3.3	
Capacity Module:												
Cnflict Vol:	310 xxxx xxxxx			249 xxxx xxxxx	xxxx		603	155	xxxx	614	125	
Potent Cap.:	1191 xxxx xxxxx			1257 xxxx xxxxx	xxxx		412	863	xxxx	406	903	
Move Cap.:	1191 xxxx xxxxx			1257 xxxx xxxxx	xxxx		401	863	xxxx	396	903	
Volume/Cap:	0.02 xxxx xxxx			0.01 xxxx xxxx	xxxx		0.12	0.17	xxxx	0.07	0.09	
Level Of Service Module:												
2Way95thQ:	0.1 xxxx xxxxx			0.0 xxxx xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		
Control Del:	8.1 xxxx xxxxx			7.9 xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		
LOS by Move:	A *	*		A *	*	*	*	*	*	*		
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx xxxx	669		xxxx xxxx	682	
SharedQueue:	0.1 xxxx xxxxx			0.0 xxxx xxxxx			xxxxx xxxx	1.2		xxxxx xxxx	0.5	
Shrd ConDel:	8.1 xxxx xxxxx			7.9 xxxx xxxxx			xxxxx xxxx	12.6		xxxxx xxxx	11.2	
Shared LOS:	A *	*		A *	*	*	*	B		*	*	B
ApproachDel:	xxxxxx			xxxxxx			12.6			11.2		
ApproachLOS:	*			*			B			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #24 Brentwood Blvd @ Oak Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.257
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Brentwood Blvd.						Oak St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 1	0 1	0	1 0	1 0	1
Volume Module:												
Base Vol:	29	137	24	16	230	84	110	83	20	58	161	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	29	137	24	16	230	84	110	83	20	58	161	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	137	24	16	230	84	110	83	20	58	161	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	137	24	16	230	84	110	83	20	58	161	24
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	16
RTOR Vol:	29	137	24	16	230	84	110	83	20	58	161	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	29	137	24	16	230	84	110	83	20	58	161	8
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.70	0.30	1.00	1.46	0.54	1.55	1.17	0.28	1.00	1.00	1.00
Final Sat.:	1650	2808	492	1650	2417	883	2331	1924	462	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.02	0.05	0.05	0.01	0.10	0.10	0.05	0.04	0.04	0.04	0.10	0.00
Crit Volume:	29				157		71				161	
Crit Moves:	****				****		****				****	

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #25 Walnut Blvd @ Oak St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.501
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	46	Level Of Service:	A

Street Name:	Walnut Blvd						Oak St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	5	7	7	0	7	7	5	5	5	5	5	5
Lanes:	1 0	1 0	1	1 0	0 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	11	248	290	350	392	26	4	6	6	206	7	129
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	248	290	350	392	26	4	6	6	206	7	129
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	248	290	350	392	26	4	6	6	206	7	129
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	248	290	350	392	26	4	6	6	206	7	129
RTOR Reduct:	0	0	206	0	0	0	0	0	0	0	0	129
RTOR Vol:	11	248	84	350	392	26	4	6	6	206	7	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	11	248	84	350	392	26	4	6	6	206	7	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.94	0.06	0.25	0.37	0.38	0.97	0.03	1.00
Final Sat.:	1650	1650	1650	1650	1547	103	413	619	619	1596	54	1650
Capacity Analysis Module:												
Vol/Sat:	0.01	0.15	0.05	0.21	0.25	0.25	0.01	0.01	0.01	0.13	0.13	0.00
Crit Volume:		248		350				16			213	
Crit Moves:		****		****				****			****	

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #26 Brentwood Blvd. @ Second St.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.273
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	26	Level Of Service:	A

Street Name:	Brentwood Blvd.						Second St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	46	221	3	107	300	21	44	193	61	45	413	273
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	46	221	3	107	300	21	44	193	61	45	413	273
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	46	221	3	107	300	21	44	193	61	45	413	273
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	221	3	107	300	21	44	193	61	45	413	273
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	107
RTOR Vol:	46	221	3	107	300	21	44	193	61	45	413	166
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	46	221	3	107	300	21	44	193	61	45	413	166
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.97	0.03	1.00	1.87	0.13	1.00	1.52	0.48	1.00	2.00	1.00
Final Sat.:	1720	3394	46	1720	3215	225	1720	2614	826	1720	3440	1720
Capacity Analysis Module:												
Vol/Sat:	0.03	0.07	0.07	0.06	0.09	0.09	0.03	0.07	0.07	0.03	0.12	0.10
Crit Volume:	112			107			44			207		
Crit Moves:	****			****			****			****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #27 Brentwood Blvd. @ Chestnut St.

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: B[11.6]

Street Name:	Brentwood Blvd.									Chestnut St.								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1!	0	0
Volume Module:																				
Base Vol:	0	203		9		18	367		0		0		0		0	14		0		12
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	0	203		9		18	367		0		0		0		0	14		0		12
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	0	203		9		18	367		0		0		0		0	14		0		12
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
FinalVolume:	0	203		9		18	367		0		0		0		0	14		0		12
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx		xxxxx		4.2	xxxx		xxxxx		xxxxx		xxxx		xxxxx	6.4		6.5		6.2
FollowUpTim:	xxxxx	xxxx		xxxxx		2.3	xxxx		xxxxx		xxxxx		xxxx		xxxxx	3.5		4.0		3.3
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx		xxxxx		212	xxxx		xxxxx		xxxx		xxxx		xxxxx	611		611		208
Potent Cap.:	xxxx	xxxx		xxxxx		1312	xxxx		xxxxx		xxxx		xxxx		xxxxx	457		409		833
Move Cap.:	xxxx	xxxx		xxxxx		1312	xxxx		xxxxx		xxxx		xxxx		xxxxx	453		403		833
Volume/Cap:	xxxx	xxxx		xxxx		0.01	xxxx		xxxx		xxxx		xxxx		xxxx	0.03		0.00		0.01
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx		xxxxx		0.0	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		xxxx		xxxxx
Control Del:	xxxxx	xxxx		xxxxx		7.8	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
LOS by Move:	*	*		*		A	*		*		*		*		*	*		*		*
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx		573		xxxxx
SharedQueue:	xxxxx	xxxx		xxxxx		0.0	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx		0.1		xxxxx
Shrd ConDel:	xxxxx	xxxx		xxxxx		7.8	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx		11.6		xxxxx
Shared LOS:	*	*		*		A	*		*		*	*		*		*		B		*
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					11.6				
ApproachLOS:	*					*					*					B				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Base Volume Alternative)

Intersection #28 Brentwood Blvd. @ Balfour Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.442
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	A

Street Name:	Brentwood Blvd.						Balfour Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	8	10	10	6	10	10	5	5	5	4	5	5
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	1 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	172	132	18	43	237	132	181	386	335	52	292	65
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	172	132	18	43	237	132	181	386	335	52	292	65
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	172	132	18	43	237	132	181	386	335	52	292	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	172	132	18	43	237	132	181	386	335	52	292	65
RTOR Reduct:	0	0	0	0	0	132	0	0	172	0	0	0
RTOR Vol:	172	132	18	43	237	0	181	386	163	52	292	65
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	172	132	18	43	237	0	181	386	163	52	292	65
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.64	0.36
Final Sat.:	1650	3300	1650	1650	3300	1650	1650	1650	1650	1650	2699	601
Capacity Analysis Module:												
Vol/Sat:	0.10	0.04	0.01	0.03	0.07	0.00	0.11	0.23	0.10	0.03	0.11	0.11
Crit Volume:	172			119			386			52		
Crit Moves:	****			****			****			****		

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #29 Sellers Ave. @ Sunet Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.722
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.5
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Sellers Ave.						Sunset Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	102	297	18	29	239	53	92	168	114	6	69	27
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	102	297	18	29	239	53	92	168	114	6	69	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	102	297	18	29	239	53	92	168	114	6	69	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	102	297	18	29	239	53	92	168	114	6	69	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	102	297	18	29	239	53	92	168	114	6	69	27
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.24	0.72	0.04	0.09	0.74	0.17	0.25	0.45	0.30	0.06	0.68	0.26
Final Sat.:	141	411	25	50	415	92	138	252	171	26	297	116
Capacity Analysis Module:												
Vol/Sat:	0.72	0.72	0.72	0.58	0.58	0.58	0.67	0.67	0.67	0.23	0.23	0.23
Crit Moves:		****			****			****			****	
Delay/Veh:	21.6	21.6	21.6	16.1	16.1	16.1	19.0	19.0	19.0	11.3	11.3	11.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.6	21.6	21.6	16.1	16.1	16.1	19.0	19.0	19.0	11.3	11.3	11.3
LOS by Move:	C	C	C	C	C	C	C	C	C	B	B	B
ApproachDel:	21.6			16.1			19.0			11.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	21.6			16.1			19.0			11.3		
LOS by Appr:	C			C			C			B		
AllWayAvgQ:	2.0	2.0	2.0	1.1	1.1	1.1	1.5	1.5	1.5	0.2	0.2	0.2

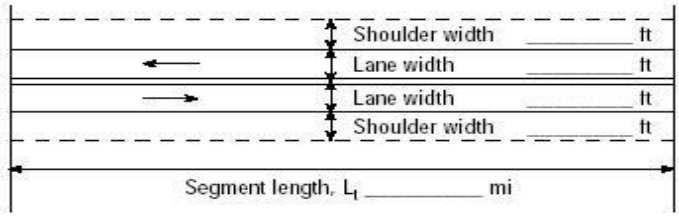
Note: Queue reported is the number of cars per lane.

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Brentwood Blvd.*
Agency or Company		From/To	*E Sims Rd. and Delta Rd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Cumulative+PP*

Project Description:

Input Data



☑ Class I highway ☐ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*1090* veh/h
Directional split	*70 / 30*
Peak-hour factor, PHF	*0.92*
No-passing zone	*100*
% Trucks and Buses , P_T	*10* %
% Recreational vehicles, P_R	*0*%
Access points/ *mi*	*20*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1197*
v_p * highest directional split proportion[2] (pc/h)	*838*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*40 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*40.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*2.1*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*28.6*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1197*
v_p * highest directional split proportion[2] (pc/h)	*838*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*65.1*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*10.4*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*75.5*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*E*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.37*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*89*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*327*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*3.1*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

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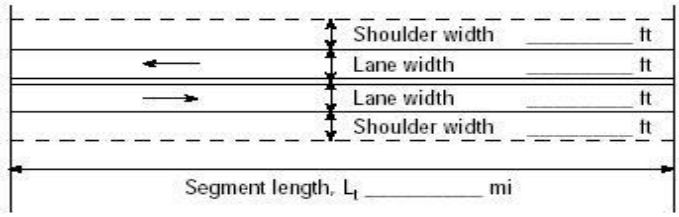
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Brentwood Blvd.*
Agency or Company		From/To	*E Sims Rd. and Delta Rd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Cumulative+PP*

Project Description:

Input Data



☑ Class I highway ☐ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*1487* veh/h
Directional split	*63 / 37*
Peak-hour factor, PHF	*0.96*
No-passing zone	*100*
% Trucks and Buses , P_T	*10 %*
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*20*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1564*
v_p * highest directional split proportion[2] (pc/h)	*985*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*40 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*40.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.5*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*26.3*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1549*
v_p * highest directional split proportion[2] (pc/h)	*976*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*74.4*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*7.2*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*81.6*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*E*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.49*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*116*

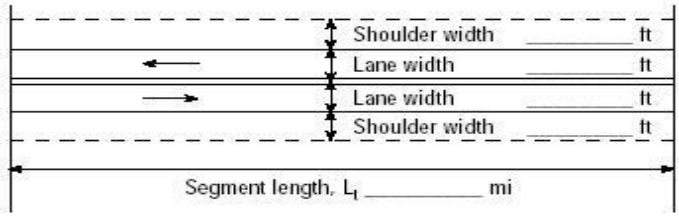
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*446*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*4.4*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Brentwood Blvd.*
Agency or Company		From/To	*Grant St. to Sunset Ct.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Cumulative+PP*

Project Description:

Input Data



☑ Class I highway ☐ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*1609* veh/h
Directional split	*52 / 48*
Peak-hour factor, PHF	*0.97*
No-passing zone	*100*
% Trucks and Buses , P_T	*10* %
% Recreational vehicles, P_R	*0*%
Access points/ *mi*	*10*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1675*
v_p * highest directional split proportion[2] (pc/h)	*871*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.4*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*15.6*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*1659*
v_p * highest directional split proportion[2] (pc/h)	*863*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*76.7*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*6.4*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*83.1*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*E*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.52*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*41*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*161*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*2.6*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

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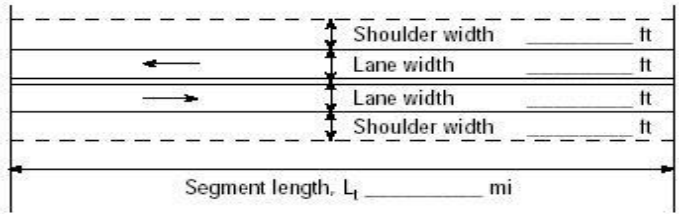
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Brentwood Blvd.*
Agency or Company		From/To	*Grant St. to Sunset Ct.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Cumulative+PP*

Project Description:

Input Data



☑ Class I highway ☐ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*2152* veh/h
Directional split	*52 / 48*
Peak-hour factor, PHF	*0.90*
No-passing zone	*100*
% Trucks and Buses , P_T	*10* %
% Recreational vehicles, P_R	*0*%
Access points/ *mi*	*10*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*2415*
v_p * highest directional split proportion[2] (pc/h)	*1256*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.1*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*10.2*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*2391*
v_p * highest directional split proportion[2] (pc/h)	*1243*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*87.8*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*3.1*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*90.8*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*E*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.75*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*60*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*215*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*5.9*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

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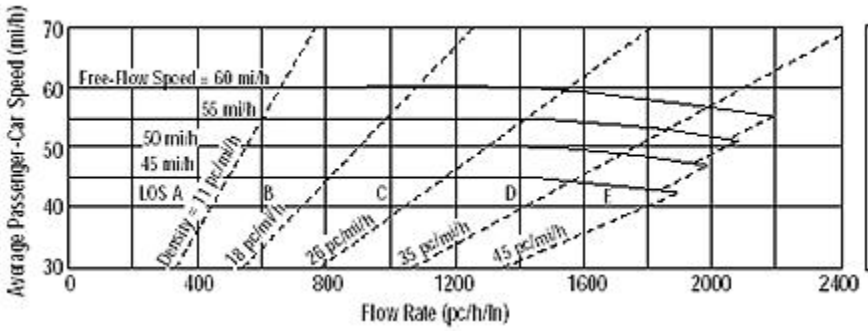
MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Central Blvd. to Spruce S
Jurisdiction	City of Brentwood
Analysis Year	Cumulative+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	279	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

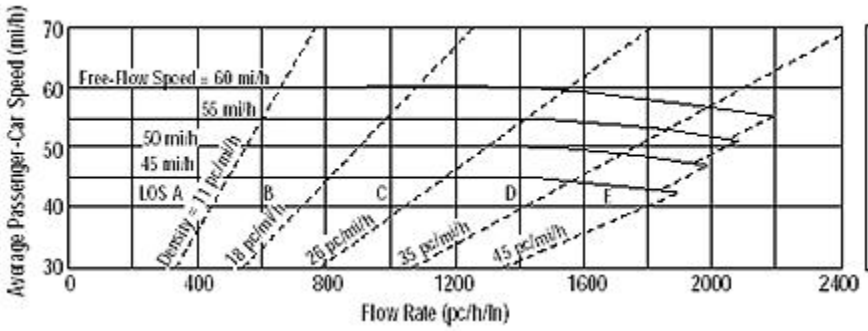
Flow Rate, v_p (pc/h/ln)	162
Speed, S (mi/h)	45.0
D (pc/mi/ln)	3.6
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Central Blvd. to Spruce S
Jurisdiction	City of Brentwood
Analysis Year	Cumulative+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	335	Peak-Hour Factor, PHF	0.95
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

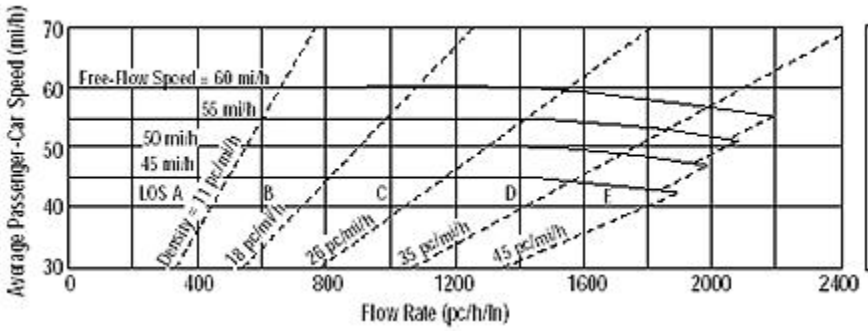
Flow Rate, v_p (pc/h/ln)	185
Speed, S (mi/h)	45.0
D (pc/mi/ln)	4.1
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Central Blvd. to Spruce S
Jurisdiction	City of Brentwood
Analysis Year	Cumulative+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	530	Peak-Hour Factor, PHF	0.78
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

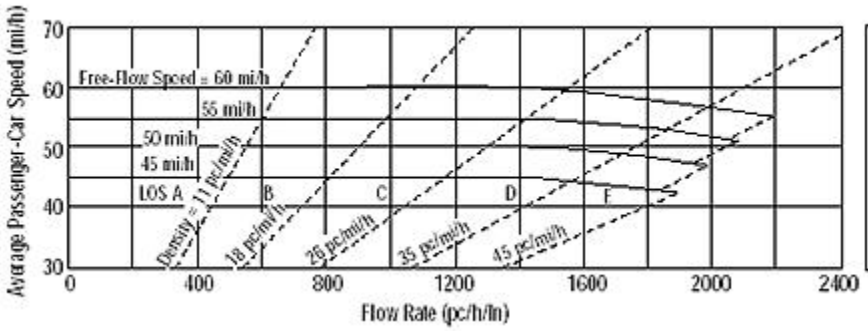
Flow Rate, v_p (pc/h/ln)	356
Speed, S (mi/h)	45.0
D (pc/mi/ln)	7.9
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Central Blvd. to Spruce S
Jurisdiction	City of Brentwood
Analysis Year	Cumulative+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	429	Peak-Hour Factor, PHF	0.99
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

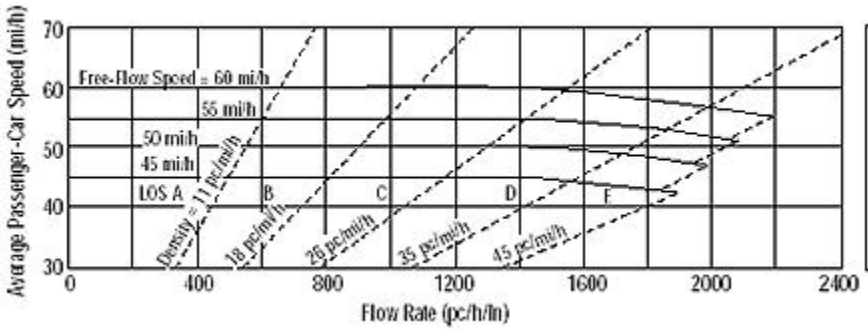
Flow Rate, v_p (pc/h/ln)	227
Speed, S (mi/h)	45.0
D (pc/mi/ln)	5.0
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Pine Ave. to Oak Ave.
Jurisdiction	City of Brentwood
Analysis Year	Cumulative+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	280	Peak-Hour Factor, PHF	0.90
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

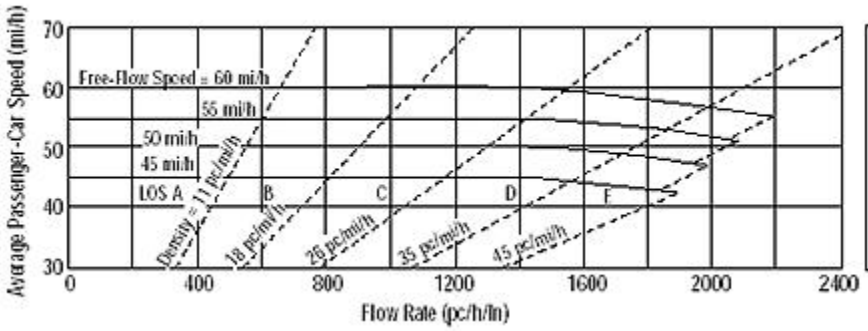
Flow Rate, v_p (pc/h/ln)	163
Speed, S (mi/h)	45.0
D (pc/mi/ln)	3.6
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Pine Ave. to Oak Ave.
Jurisdiction	City of Brentwood
Analysis Year	Cumulative+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	150	Peak-Hour Factor, PHF	0.88
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

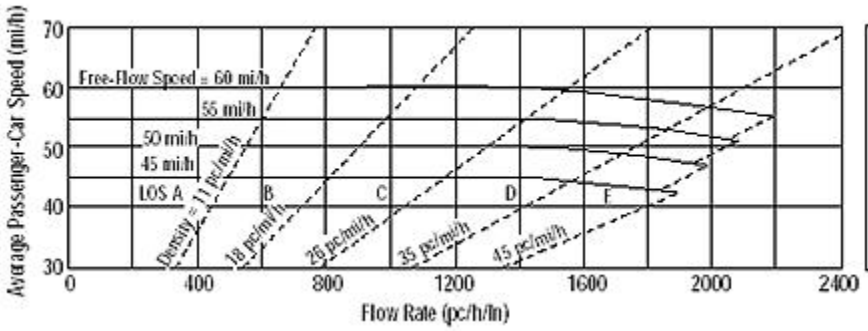
Flow Rate, v_p (pc/h/ln)	89
Speed, S (mi/h)	45.0
D (pc/mi/ln)	2.0
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Pine Ave. to Oak Ave.
Jurisdiction	City of Brentwood
Analysis Year	Cumulative+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	270	Peak-Hour Factor, PHF	0.97
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

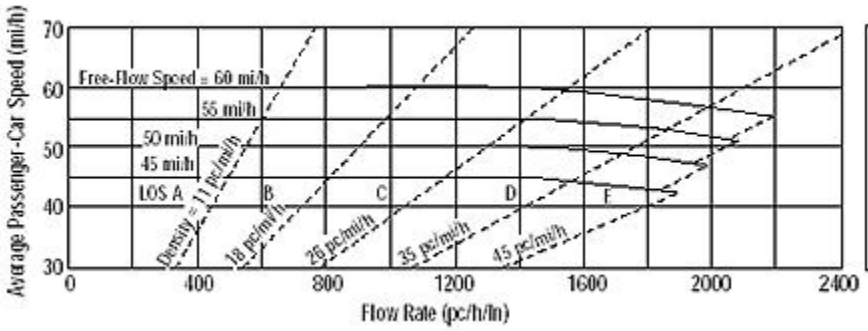
Flow Rate, v_p (pc/h/ln)	146
Speed, S (mi/h)	45.0
D (pc/mi/ln)	3.2
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Brentwood Blvd.
From/To	Pine Ave. to Oak Ave.
Jurisdiction	City of Brentwood
Analysis Year	Cumulative+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	330	Peak-Hour Factor, PHF	0.97
AADT(veh/h)		%Trucks and Buses, P_T	10
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.952

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	178
Speed, S (mi/h)	45.0
D (pc/mi/ln)	4.0
LOS	A

Design

Design (N)

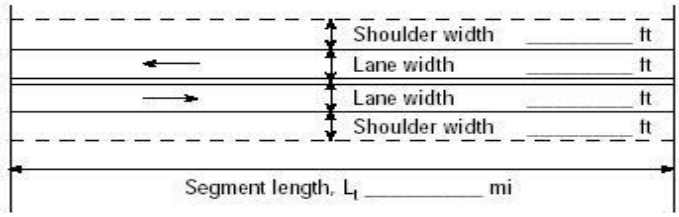
Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Delta Rd.*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Cumulative+PP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*629* veh/h
Directional split	*65 / 35*
Peak-hour factor, PHF	*0.76*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*40*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*831*
v_p * highest directional split proportion[2] (pc/h)	*540*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*50 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*50.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*43.6*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*829*
v_p * highest directional split proportion[2] (pc/h)	*539*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*51.7*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*51.7*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.26*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*207*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*629*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*4.8*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

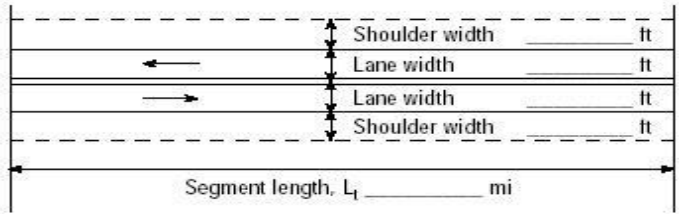
 HCS+™ Version 5.2 Generated: 11/15/2007 5:52 PM

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Delta Rd.*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Cumulative+PP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*824* veh/h
Directional split	*65 / 35*
Peak-hour factor, PHF	*0.91*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*40*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*909*
v_p * highest directional split proportion[2] (pc/h)	*591*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*50 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*50.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*42.9*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*907*
v_p * highest directional split proportion[2] (pc/h)	*590*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*54.9*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*54.9*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.28*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*226*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*824*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*5.3*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

HCS2000: Multilane Highways Release 4.1d

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E-mail:

OPERATIONAL ANALYSIS

Analyst: Kimley-Horn and Associates
Agency/Co:
Date: 4/14/08
Analysis Period: AM Peak
Highway: Lone Tree
From/To: West of Brentwood
Jurisdiction: City of Brentwood
Analysis Year: Cumulative Plus Project
Project ID:

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	50.0	mph	50.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	50.0	mph	50.0	mph

VOLUME

Direction	1		2	
Volume, V	940	vph	867	vph
Peak-hour factor, PHF	0.92		0.92	
Peak 15-minute volume, v15	255		236	
Trucks and buses	2	%	2	%
Recreational vehicles	4	%	4	%
Terrain type	Level		Level	
Grade	0.00	%	0.00	%
Segment length	0.00	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5*		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.982		0.982	
Flow rate, vp	520	pcphpl	479	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	520	pcphpl	479	pcphpl
Free-flow speed, FFS	50.0	mph	50.0	mph
Avg. passenger-car travel speed, S	50.0	mph	50.0	mph
Level of service, LOS	A		A	
Density, D	10.4	pc/mi/ln	9.6	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

HCS2000: Multilane Highways Release 4.1d

Steve Pyburn
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Suite 120
Roseville, CA 95747
Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst: Kimley-Horn and Associates
Agency/Co:
Date: 4/14/08
Analysis Period: PM Peak
Highway: Lone Tree
From/To: West of Brentwood
Jurisdiction: City of Brentwood
Analysis Year: Cumulative Plus Project
Project ID:

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	50.0	mph	50.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	50.0	mph	50.0	mph

VOLUME

Direction	1		2	
Volume, V	1119	vph	1212	vph
Peak-hour factor, PHF	0.92		0.92	
Peak 15-minute volume, v15	304		329	
Trucks and buses	2	%	2	%
Recreational vehicles	4	%	4	%
Terrain type	Level		Level	
Grade	0.00	%	0.00	%
Segment length	0.00	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5*		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.982		0.982	
Flow rate, vp	619	pcphpl	670	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	619	pcphpl	670	pcphpl
Free-flow speed, FFS	50.0	mph	50.0	mph
Avg. passenger-car travel speed, S	50.0	mph	50.0	mph
Level of service, LOS	B		B	
Density, D	12.4	pc/mi/ln	13.4	pc/mi/ln

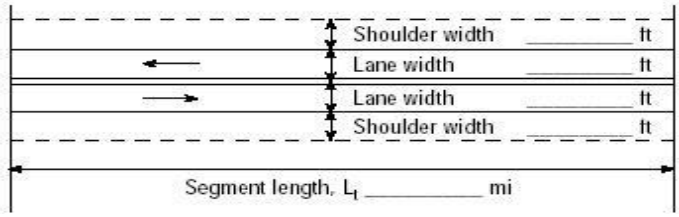
Overall results are not computed when free-flow speed is less than 45 mph.

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Sunset Ave*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Cumulative+PP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*568* veh/h
Directional split	*63 / 37*
Peak-hour factor, PHF	*0.88*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*20*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*648*
v_p * highest directional split proportion[2] (pc/h)	*408*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*3.7*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*21.3*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*647*
v_p * highest directional split proportion[2] (pc/h)	*408*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*43.4*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*19.3*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*62.7*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.20*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*161*

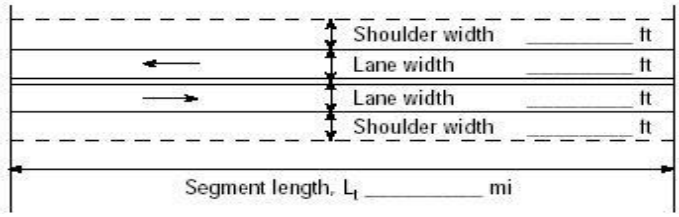
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*568*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*7.6*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Sunset Ave*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Cumulative+PP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*614* veh/h
Directional split	*57 / 43*
Peak-hour factor, PHF	*0.88*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*20*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*701*
v_p * highest directional split proportion[2] (pc/h)	*400*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*3.4*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*21.1*

Percent Time-Spent-Following

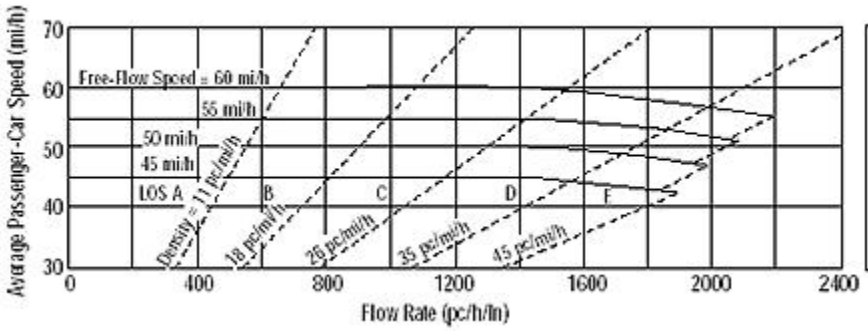
Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*699*
v_p * highest directional split proportion[2] (pc/h)	*398*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*45.9*
Adj. for directional distribution and no-passing zone, $f_{d/hp}$(%)(Exh. 20-12)	*17.7*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*63.6*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.22*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*174*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*614*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*8.2*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Central Blvd.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Cumulative+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	556	Peak-Hour Factor, PHF	0.86
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

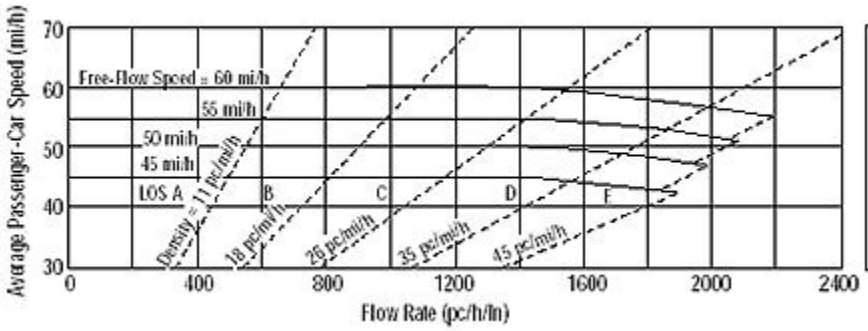
Flow Rate, v_p (pc/h/ln)	326
Speed, S (mi/h)	45.0
D (pc/mi/ln)	7.2
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Central Blvd.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Cumulative+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	386	Peak-Hour Factor, PHF	0.88
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

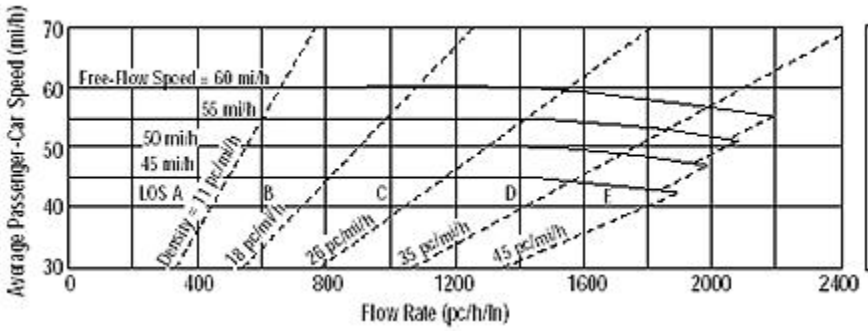
Flow Rate, v_p (pc/h/ln)	221
Speed, S (mi/h)	45.0
D (pc/mi/ln)	4.9
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Central Blvd.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Cumulative+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	501	Peak-Hour Factor, PHF	0.84
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

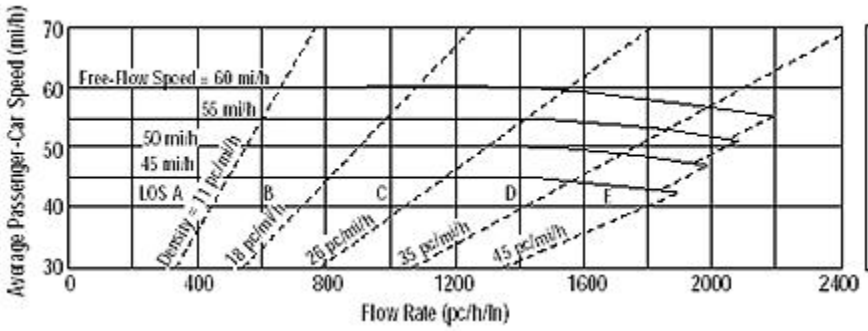
Flow Rate, v_p (pc/h/ln)	301
Speed, S (mi/h)	45.0
D (pc/mi/ln)	6.7
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/7/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Central Blvd.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Cumulative+PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	879	Peak-Hour Factor, PHF	0.76
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearance, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	584
Speed, S (mi/h)	45.0
D (pc/mi/ln)	13.0
LOS	B

Design

Design (N)

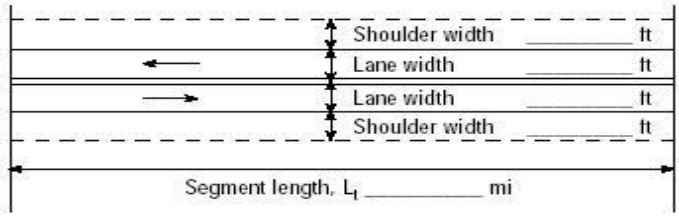
Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Grant St.*
Agency or Company		From/To	*West of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Cumulative+PP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*280* veh/h
Directional split	*73 / 27*
Peak-hour factor, PHF	*0.71*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*7*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*400*
v_p * highest directional split proportion[2] (pc/h)	*292*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*4.5*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*22.4*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*395*
v_p * highest directional split proportion[2] (pc/h)	*288*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*29.3*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*24.7*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*54.0*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.13*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*99*

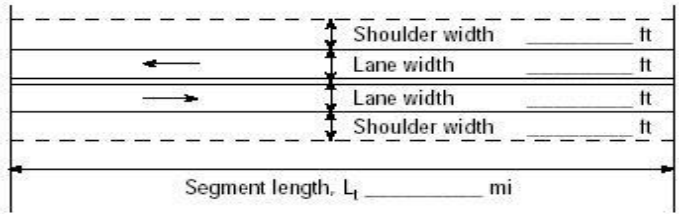
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*280*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*4.4*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Grant St.*
Agency or Company		From/To	*West of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Cumulative+PP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*217* veh/h
Directional split	*63 / 37*
Peak-hour factor, PHF	*0.87*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*7*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*253*
v_p * highest directional split proportion[2] (pc/h)	*159*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*3.8*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*24.3*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*250*
v_p * highest directional split proportion[2] (pc/h)	*158*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*19.7*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*23.8*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*43.5*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.08*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*62*

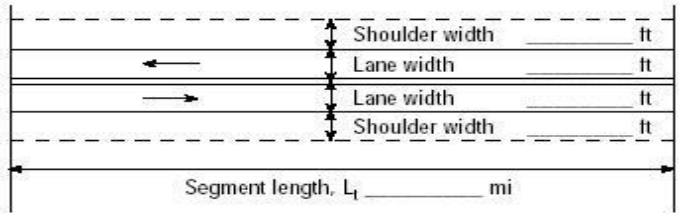
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*217*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*2.6*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Sycamore Ave.*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Cumulative+PP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*413* veh/h
Directional split	*78 / 22*
Peak-hour factor, PHF	*0.87*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*35*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*481*
v_p * highest directional split proportion[2] (pc/h)	*375*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*4.3*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*22.0*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*476*
v_p * highest directional split proportion[2] (pc/h)	*371*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*34.2*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*25.8*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*60.0*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.15*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*59*

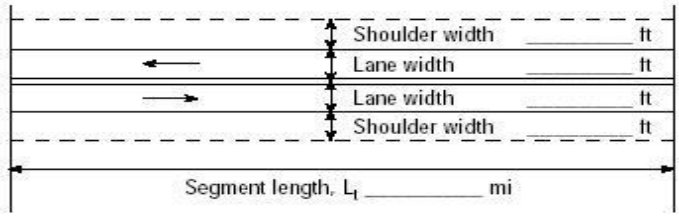
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*207*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*2.7*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*Kimley-Horn and Associates*	Highway	*Sycamore Ave.*
Agency or Company		From/To	*East of Brentwood Blvd.*
Date Performed	*11/7/2007*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Cumulative+PP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*442* veh/h
Directional split	*75 / 25*
Peak-hour factor, PHF	*0.82*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*4*%
Access points/ *mi*	*35*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*547*
v_p * highest directional split proportion[2] (pc/h)	*410*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*30 mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	*0 veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	*30.0 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*4.1*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*21.7*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	*540*
v_p * highest directional split proportion[2] (pc/h)	*405*
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	*37.8*
Adj. for directional distribution and no-passing zone, $f_{d/hp}$(%)(Exh. 20-12)	*23.6*
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	*61.4*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio, $v/c=V_p/3{,}200$	*0.17*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	*67*

Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	*221*
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	*3.1*
Notes	
1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F. 2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.	

Appendix F:

Analysis Worksheets for Mitigated Conditions

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #4 Brentwood Blvd @ Lone Tree Way (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.720
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	81	Level Of Service:	C

Street Name:	Brentwood Blvd						Lone Tree Way (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	2 0 2	0 1		1 0 2	0 1		1 0 1	0 1		1 0 1	0 1	
Volume Module:												
Base Vol:	300	536	23	11	604	196	135	8	140	56	10	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	300	536	23	11	604	196	135	8	140	56	10	9
Added Vol:	260	729	250	111	369	40	228	113	324	44	20	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	560	1265	273	122	973	236	363	121	464	100	30	28
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	560	1265	273	122	973	236	363	121	464	100	30	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	560	1265	273	122	973	236	363	121	464	100	30	28
RTOR Reduct:	0	0	100	0	0	236	0	0	0	0	0	28
RTOR Vol:	560	1265	173	122	973	0	363	121	464	100	30	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	560	1265	173	122	973	0	363	121	464	100	30	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	3000	3300	1650	1650	3300	1650	1650	1650	1650	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.19	0.38	0.10	0.07	0.29	0.00	0.22	0.07	0.28	0.06	0.02	0.00
Crit Volume:	280				487		363				30	
Crit Moves:	****				****		****				****	

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #5 Arroyo Seco Road @ Lone Tree Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.642
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	13.3
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Arroyo Seco Road						Lone Tree Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0 0	0	0	0 0	0 1	0	0 1!	0 0	0	0 1	0 0
Volume Module:												
Base Vol:	52	0	0	0	0	0	0	8	34	0	21	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	52	0	0	0	0	0	0	8	34	0	21	0
Added Vol:	0	0	0	0	0	83	473	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	52	0	0	0	0	83	473	8	34	0	21	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	52	0	0	0	0	83	473	8	34	0	21	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	0	0	0	0	83	473	8	34	0	21	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	52	0	0	0	0	83	473	8	34	0	21	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	0.00	0.00	0.00	1.00	0.92	0.01	0.07	0.00	1.00	0.00
Final Sat.:	604	0	0	0	0	705	736	12	53	0	711	0
Capacity Analysis Module:												
Vol/Sat:	0.09	xxxx	xxxx	xxxx	xxxx	0.12	0.64	0.64	0.64	xxxx	0.03	xxxx
Crit Moves:	****					****	****				****	
Delay/Veh:	8.9	0.0	0.0	0.0	0.0	8.2	14.8	14.8	14.8	0.0	8.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.9	0.0	0.0	0.0	0.0	8.2	14.8	14.8	14.8	0.0	8.0	0.0
LOS by Move:	A	*	*	*	*	A	B	B	B	*	A	*
ApproachDel:	8.9			8.2			14.8			8.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.9			8.2			14.8			8.0		
LOS by Appr:	A			A			B			A		
AllWayAvgQ:	0.1	0.1	0.1	0.1	0.1	0.1	1.6	1.6	1.6	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #6 Brentwood Blvd. @ Sunrise Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.748
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	90	Level Of Service:	C

Street Name:	Brentwood Blvd.						Sunrise Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2 0 0			0 0 2 0 1			2 0 0 0 1			0 0 0 0 0		
Volume Module:												
Base Vol:	15	959	0	0	840	1	14	0	11	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	15	959	0	0	840	1	14	0	11	0	0	0
Added Vol:	15	1202	0	0	728	8	37	0	17	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	30	2161	0	0	1568	9	51	0	28	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.93	0.93	0.93	0.75	0.75	0.75	1.00	1.00	1.00
PHF Volume:	35	2498	0	0	1693	10	68	0	37	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	2498	0	0	1693	10	68	0	37	0	0	0
RTOR Reduct:	0	0	0	0	0	10	0	0	0	0	0	0
RTOR Vol:	35	2498	0	0	1693	0	68	0	37	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	35	2498	0	0	1693	0	68	0	37	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1720	3440	0	0	3440	1720	3127	0	1720	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.73	0.00	0.00	0.49	0.00	0.02	0.00	0.02	0.00	0.00	0.00
Crit Volume:		1249			0			34			0	
Crit Moves:		****			****			****				

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Brentwood Blvd. @ Gregory Lane

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: C[19.3]

Street Name:	Brentwood Blvd.						Gregory Ln.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 2	0	0	0 0 2	0	1	0 0 0	0	1	0 0 1!	0	0
Volume Module:												
Base Vol:	0	993	0	0	852	6	0	0	15	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	993	0	0	852	6	0	0	15	0	0	0
Added Vol:	0	1217	0	0	737	8	0	0	17	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2210	0	0	1589	14	0	0	32	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.93	0.93	0.93	0.65	0.65	0.65	1.00	1.00	1.00
PHF Volume:	0	2500	0	0	1714	15	0	0	49	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	2500	0	0	1714	15	0	0	49	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	7.5	6.5	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	857	3357	4229	1250
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	301	3	2	164
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	301	3	2	164
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.16	0.00	0.00	0.00
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.6	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	19.3	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	C	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			19.3			xxxxxx		
ApproachLOS:	*			*			C			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Brentwood Blvd. @ Homecoming Way

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: E[36.1]

Street Name:	Brentwood Blvd.						Homecoming Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1	1 0		0 0 2	0 0		0 0 0	0 0		0 0 0	0 1	
Volume Module:												
Base Vol:	0	990	22	0	894	0	0	0	0	0	0	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	990	22	0	894	0	0	0	0	0	0	19
Added Vol:	0	1196	9	0	763	0	0	0	0	0	0	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2186	31	0	1657	0	0	0	0	0	0	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.91	0.91	0.91	1.00	1.00	1.00	0.66	0.66	0.66
PHF Volume:	0	2448	35	0	1825	0	0	0	0	0	0	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	2448	35	0	1825	0	0	0	0	0	0	52
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	1241
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	166
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	166
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.31
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	1.2
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	36.1
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	E
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			36.1		
ApproachLOS:	*			*			*			E		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #10 Brentwood Blvd. @ Grant Street / Sunset Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.784
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	106	Level Of Service:	C

Street Name:	Brentwood Blvd.						Grant Street / Sunset Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0	2 0	1	2 0	2 0	1	1 0	1 0	1	2 0	1 0	1
Volume Module:												
Base Vol:	51	852	101	138	693	51	35	53	46	265	65	182
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	51	852	101	138	693	51	35	53	46	265	65	182
Added Vol:	54	1063	25	27	709	26	111	2	76	82	6	31
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	105	1915	126	165	1402	77	146	55	122	347	71	213
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	105	1915	126	165	1402	77	146	55	122	347	71	213
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	105	1915	126	165	1402	77	146	55	122	347	71	213
RTOR Reduct:	0	0	126	0	0	77	0	0	0	0	0	0
RTOR Vol:	105	1915	0	165	1402	0	146	55	122	347	71	213
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	105	1915	0	165	1402	0	146	55	122	347	71	213
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	1650	3300	1650	3000	3300	1650	1650	1650	1650	3000	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.06	0.58	0.00	0.06	0.42	0.00	0.09	0.03	0.07	0.12	0.04	0.13
Crit Volume:		957			83			55			174	
Crit Moves:		****			****			****			****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #11 Brentwood Blvd. @ Sunset Ct.

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: D[32.0]

Street Name:	Brentwood Blvd.						Sunset Ct.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1	1 0		0 0 2	0 0		0 0 0	0 0		0 0 0	0 1	
Volume Module:												
Base Vol:	0	973	7	0	911	0	0	0	0	0	0	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	973	7	0	911	0	0	0	0	0	0	17
Added Vol:	0	1126	0	0	868	0	0	0	0	0	0	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2099	7	0	1779	0	0	0	0	0	0	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.91	0.91	0.91	1.00	1.00	1.00	0.73	0.73	0.73
PHF Volume:	0	2388	8	0	1953	0	0	0	0	0	0	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	2388	8	0	1953	0	0	0	0	0	0	46
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	1198
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	178
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	178
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.26
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	1.0
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	32.0
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	D
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			32.0		
ApproachLOS:	*			*			*			D		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #12 Brentwood Blvd. @ Havenwood Ave.

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: E[35.3]

Street Name:	Brentwood Blvd.						Havenwood Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 2	0	1	0 0 1	1	0	0 0 0	0	1	0 0 0	0	1
Volume Module:												
Base Vol:	0	934	50	0	870	12	0	0	11	0	0	79
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	934	50	0	870	12	0	0	11	0	0	79
Added Vol:	0	1118	8	0	868	0	0	0	15	0	0	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2052	58	0	1738	12	0	0	26	0	0	87
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.98	0.98	0.98	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	0	2149	61	0	1783	12	0	0	30	0	0	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	2149	61	0	1783	12	0	0	30	0	0	99
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	897	xxxx	xxxx	1074
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	283	xxxx	xxxx	215
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	283	xxxx	xxxx	215
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.11	xxxx	xxxx	0.46
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.3	xxxx	xxxx	2.2
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	19.2	xxxxx	xxxx	35.3
LOS by Move:	*	*	*	*	*	*	*	*	C	*	*	E
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			19.2			35.3		
ApproachLOS:	*			*			C			E		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #13 Brentwood Blvd. @ Applewood Common

Cycle (sec):	100	Critical Vol./Cap.(X):	0.759
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	95	Level Of Service:	C

Street Name:	Brentwood Blvd.						Applewood Common					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	1 0	1	1 0	1 0	1
Volume Module:												
Base Vol:	22	925	42	55	889	10	25	2	28	128	0	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	22	925	42	55	889	10	25	2	28	128	0	23
Added Vol:	72	1060	29	38	773	72	46	0	42	37	0	20
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	94	1985	71	93	1662	82	71	2	70	165	0	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	94	1985	71	93	1662	82	71	2	70	165	0	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	94	1985	71	93	1662	82	71	2	70	165	0	43
RTOR Reduct:	0	0	71	0	0	71	0	0	0	0	0	43
RTOR Vol:	94	1985	0	93	1662	11	71	2	70	165	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	94	1985	0	93	1662	11	71	2	70	165	0	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1650	3300	1650	1650	3300	1650	1650	1650	1650	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.06	0.60	0.00	0.06	0.50	0.01	0.04	0.00	0.04	0.10	0.00	0.00
Crit Volume:		993			93			2			165	
Crit Moves:		****			****			****			****	

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #14 Brentwood Blvd. @ Sand Creek Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.762
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	78	Level Of Service:	C

Street Name:	Brentwood Blvd.						Sand Creek Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ignore			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0	2 0	1	1 0	2 0	1	2 0	2 0	1	1 0	1 1	1
Volume Module:												
Base Vol:	203	624	0	0	784	235	146	0	116	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	203	624	0	0	784	235	146	0	116	0	0	0
Added Vol:	75	582	73	158	441	253	479	73	104	46	46	100
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	278	1206	73	158	1225	488	625	73	220	46	46	100
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	278	1206	73	158	1225	488	625	73	220	46	46	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	278	1206	73	158	1225	488	625	73	220	46	46	100
RTOR Reduct:	0	0	46	0	0	0	0	0	220	0	0	100
RTOR Vol:	278	1206	27	158	1225	488	625	73	0	46	46	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	278	1206	27	158	1225	488	625	73	0	46	46	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	0.91
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1650	3300	1650	1650	3300	1650	3000	3300	1650	1650	3300	1500
Capacity Analysis Module:												
Vol/Sat:	0.17	0.37	0.02	0.10	0.37	0.30	0.21	0.02	0.00	0.03	0.01	0.00
Crit Volume:	278				613		313				23	
Crit Moves:	****				****		****				****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #17 Brentwood Blvd. @ Village Drive

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: C[16.1]

Street Name:	Brentwood Blvd.						Village Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1	1 0		0 0 1	0 0		0 0 0	0 0		0 0 0	0 1	
Volume Module:												
Base Vol:	0	817	21	0	756	0	0	0	0	0	0	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	817	21	0	756	0	0	0	0	0	0	22
Added Vol:	0	637	15	0	402	0	0	0	0	0	0	25
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1454	36	0	1158	0	0	0	0	0	0	47
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.81	0.81	0.81	1.00	1.00	1.00	0.66	0.66	0.66
PHF Volume:	0	1518	38	0	1423	0	0	0	0	0	0	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1518	38	0	1423	0	0	0	0	0	0	71
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	778
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	397
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	397
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.18
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.6
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	16.1
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	C
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			16.1		
ApproachLOS:	*			*			*			C		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #18 Brentwood Blvd. @ Central Blvd / Sycamore Ave (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.644
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	B

Street Name:	Brentwood Blvd.						Central Blvd / Sycamore Ave (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	15	15	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 0	1
Volume Module:												
Base Vol:	43	587	42	78	615	112	140	59	41	69	119	137
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	43	587	42	78	615	112	140	59	41	69	119	137
Added Vol:	2	478	15	92	259	51	114	6	3	9	4	59
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	1065	57	170	874	163	254	65	44	78	123	196
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	45	1065	57	170	874	163	254	65	44	78	123	196
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	1065	57	170	874	163	254	65	44	78	123	196
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	170
RTOR Vol:	45	1065	57	170	874	163	254	65	44	78	123	26
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	1065	57	170	874	163	254	65	44	78	123	26
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.90	0.10	1.00	1.69	0.31	1.00	1.19	0.81	1.00	1.00	1.00
Final Sat.:	1720	3265	175	1720	2899	541	1720	2051	1389	1720	1720	1720
Capacity Analysis Module:												
Vol/Sat:	0.03	0.33	0.33	0.10	0.30	0.30	0.15	0.03	0.03	0.05	0.07	0.02
Crit Volume:		561			170			254			123	
Crit Moves:	****			****			****			****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #22 Brentwood Blvd @ Pine Street

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: B[13.9]

Street Name:	Brentwood Blvd						Pine Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1	1 0		0 0 2	0 0		0 0 0	0 0		0 0 0	0 1	
Volume Module:												
Base Vol:	0	547	102	0	672	0	0	0	0	0	0	59
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	547	102	0	672	0	0	0	0	0	0	59
Added Vol:	0	497	0	0	240	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1044	102	0	912	0	0	0	0	0	0	59
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1044	102	0	912	0	0	0	0	0	0	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1044	102	0	912	0	0	0	0	0	0	59
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	573
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	463
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	463
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.13
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.4
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	13.9
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	B
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			13.9		
ApproachLOS:	*			*			*			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #27 Brentwood Blvd. @ Chestnut St.

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: C[19.6]

Street Name:	Brentwood Blvd.						Chestnut St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 0 1 0 0			0 0 0 0 0			0 0 0 0 1		
Volume Module:												
Base Vol:	0	631	40	0	659	0	0	0	0	0	0	44
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	631	40	0	659	0	0	0	0	0	0	44
Added Vol:	0	363	0	0	176	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	994	40	0	835	0	0	0	0	0	0	44
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	994	40	0	835	0	0	0	0	0	0	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	994	40	0	835	0	0	0	0	0	0	44
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	1014
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	290
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	290
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.15
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.5
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	19.6
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	C
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			19.6		
ApproachLOS:	*			*			*			C		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #28 Brentwood Blvd. @ Balfour Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.623
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Brentwood Blvd.						Balfour Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	8	10	10	6	10	10	5	5	5	4	5	5
Lanes:	2 0 2	0	1	1 0 2	0	1	1 0 1	0	1	1 0 1	1	0
Volume Module:												
Base Vol:	267	381	15	84	367	238	261	353	333	40	458	124
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	267	381	15	84	367	238	261	353	333	40	458	124
Added Vol:	0	325	7	20	155	0	0	0	0	5	0	38
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	267	706	22	104	522	238	261	353	333	45	458	162
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	267	706	22	104	522	238	261	353	333	45	458	162
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	267	706	22	104	522	238	261	353	333	45	458	162
RTOR Reduct:	0	0	22	0	0	238	0	0	147	0	0	0
RTOR Vol:	267	706	0	104	522	0	261	353	186	45	458	162
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	267	706	0	104	522	0	261	353	186	45	458	162
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.48	0.52
Final Sat.:	3000	3300	1650	1650	3300	1650	1650	1650	1650	1650	2438	862
Capacity Analysis Module:												
Vol/Sat:	0.09	0.21	0.00	0.06	0.16	0.00	0.16	0.21	0.11	0.03	0.19	0.19
Crit Volume:		353			104			261				310
Crit Moves:		****			****			****				****

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #4 Brentwood Blvd @ Lone Tree Way (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.800
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	114	Level Of Service:	D

Street Name:	Brentwood Blvd						Lone Tree Way (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	2 0 2	0 1		1 0 2	0 1		1 0 1	0 1		1 0 1	0 1	
Volume Module:												
Base Vol:	222	672	44	15	693	124	169	8	174	31	5	6
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	222	672	44	15	693	124	169	8	174	31	5	6
Added Vol:	380	446	56	25	711	204	51	25	300	223	101	99
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	602	1118	100	40	1404	328	220	33	474	254	106	105
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	602	1118	100	40	1404	328	220	33	474	254	106	105
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	602	1118	100	40	1404	328	220	33	474	254	106	105
RTOR Reduct:	0	0	100	0	0	220	0	0	0	0	0	40
RTOR Vol:	602	1118	0	40	1404	108	220	33	474	254	106	65
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	602	1118	0	40	1404	108	220	33	474	254	106	65
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	3000	3300	1650	1650	3300	1650	1650	1650	1650	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.20	0.34	0.00	0.02	0.43	0.07	0.13	0.02	0.29	0.15	0.06	0.04
Crit Volume:	301				702			33		254		
Crit Moves:	****				****			****		****		

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #5 Arroyo Seco Road @ Lone Tree Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.464
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	9.7
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Arroyo Seco Road						Lone Tree Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	0 0	1	0 0	1! 0	0	0 0	1 0	0
Volume Module:												
Base Vol:	29	0	1	0	0	0	0	25	47	0	16	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	29	0	1	0	0	0	0	25	47	0	16	0
Added Vol:	0	0	0	0	0	423	106	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	0	1	0	0	423	106	25	47	0	16	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	0	1	0	0	423	106	25	47	0	16	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	0	1	0	0	423	106	25	47	0	16	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	29	0	1	0	0	423	106	25	47	0	16	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.97	0.00	0.03	0.00	0.00	1.00	0.60	0.14	0.26	0.00	1.00	0.00
Final Sat.:	661	0	23	0	0	911	417	98	185	0	648	0
Capacity Analysis Module:												
Vol/Sat:	0.04	xxxx	0.04	xxxx	xxxx	0.46	0.25	0.25	0.25	xxxx	0.02	xxxx
Crit Moves:			****			****		****			****	
Delay/Veh:	8.2	0.0	8.2	0.0	0.0	10.0	9.3	9.3	9.3	0.0	8.2	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.2	0.0	8.2	0.0	0.0	10.0	9.3	9.3	9.3	0.0	8.2	0.0
LOS by Move:	A	*	A	*	*	A	A	A	A	*	A	*
ApproachDel:	8.2			10.0			9.3			8.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.2			10.0			9.3			8.2		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.0	0.0	0.0	0.8	0.8	0.8	0.3	0.3	0.3	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #6 Brentwood Blvd. @ Sunrise Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.898
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	D

Street Name:	Brentwood Blvd.						Sunrise Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2 0 0			0 0 2 0 1			2 0 0 0 1			0 0 0 0 0		
Volume Module:												
Base Vol:	66	1253	0	0	1148	23	45	0	21	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	66	1253	0	0	1148	23	45	0	21	0	0	0
Added Vol:	41	848	0	0	1212	22	34	0	16	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	107	2101	0	0	2360	45	79	0	37	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.87	0.87	0.87	0.68	0.68	0.68	1.00	1.00	1.00
PHF Volume:	126	2469	0	0	2710	52	116	0	54	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	126	2469	0	0	2710	52	116	0	54	0	0	0
RTOR Reduct:	0	0	0	0	0	52	0	0	0	0	0	0
RTOR Vol:	126	2469	0	0	2710	0	116	0	54	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	126	2469	0	0	2710	0	116	0	54	0	0	0
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1720	3440	0	0	3440	1720	3127	0	1720	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.07	0.72	0.00	0.00	0.79	0.00	0.04	0.00	0.03	0.00	0.00	0.00
Crit Volume:	126				1355		58				0	
Crit Moves:	****				****		****					

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Brentwood Blvd. @ Gregory Lane

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: F[56.9]

Street Name:	Brentwood Blvd.						Gregory Ln.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 2	0	0	0 0 2	0	1	0 0 0	0	1	0 0 1!	0	0
Volume Module:												
Base Vol:	0 1279	0		0 1116	40		0	0	37	0	0	0
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0 1279	0		0 1116	40		0	0	37	0	0	0
Added Vol:	0 889	0		0 1206	22		0	0	16	0	0	0
PasserByVol:	0 0	0		0 0	0		0	0	0	0	0	0
Initial Fut:	0 2168	0		0 2322	62		0	0	53	0	0	0
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89 0.89	0.89		0.81 0.81	0.81		0.92	0.92	0.92	1.00	1.00	1.00
PHF Volume:	0 2450	0		0 2860	76		0	0	57	0	0	0
Reduct Vol:	0 0	0		0 0	0		0	0	0	0	0	0
FinalVolume:	0 2450	0		0 2860	76		0	0	57	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx	xxxx	6.9	7.5	6.5	6.9
FollowUpTim:	xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx	xxxx	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx	xxxx	1430	3880	5386	1225
Potent Cap.:	xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx	xxxx	124	1	0	171
Move Cap.:	xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx	xxxx	124	1	0	171
Volume/Cap:	xxxx xxxx	xxxx		xxxx xxxx	xxxx		xxxx	xxxx	0.46	0.00	0.00	0.00
Level Of Service Module:												
2Way95thQ:	xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx	xxxx	2.1	xxxx	xxxx	xxxxx
Control Del:	xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx	xxxx	56.9	xxxxx	xxxx	xxxxx
LOS by Move:	* *	*		* *	*		*	*	F	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx	xxxx	xxxxx	xxxx	0	xxxxx
SharedQueue:	xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	* *	*		* *	*		*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			56.9			xxxxxx		
ApproachLOS:	*			*			F			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Brentwood Blvd. @ Homecoming Way

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: E[38.6]

Street Name:	Brentwood Blvd.						Homecoming Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1	1 0		0 0 2	0 0		0 0 0	0 0		0 0 0	0 1	
Volume Module:												
Base Vol:	0 1192	20		0 1194	0		0	0		0	0	6
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	0 1192	20		0 1194	0		0	0		0	0	6
Added Vol:	0 886	24		0 1215	0		0	0		0	0	14
PasserByVol:	0 0	0		0 0	0		0	0		0	0	0
Initial Fut:	0 2078	44		0 2409	0		0	0		0	0	20
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	0.82 0.82	0.82		0.86 0.86	0.86		1.00 1.00	1.00		0.42 0.42	0.42	
PHF Volume:	0 2528	54		0 2811	0		0	0		0	0	48
Reduct Vol:	0 0	0		0 0	0		0	0		0	0	0
FinalVolume:	0 2528	54		0 2811	0		0	0		0	0	48
Critical Gap Module:												
Critical Gp:	xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx		6.9
FollowUpTim:	xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx		3.3
Capacity Module:												
Cnflict Vol:	xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx		1291
Potent Cap.:	xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx		154
Move Cap.:	xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx		154
Volume/Cap:	xxxx xxxx	xxxx		xxxx xxxx	xxxx		xxxx xxxx	xxxx		xxxx xxxx		0.31
Level Of Service Module:												
2Way95thQ:	xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx		1.2
Control Del:	xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx		38.6
LOS by Move:	* *	*		* *	*		* *	*		* *		E
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx		xxxxx
SharedQueue:	xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx		xxxxx
Shrd ConDel:	xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx		xxxxx
Shared LOS:	* *	*		* *	*		* *	*		* *		*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			38.6		
ApproachLOS:	*			*			*			E		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #10 Brentwood Blvd. @ Grant Street / Sunset Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.851
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	153	Level Of Service:	D

Street Name:	Brentwood Blvd.						Grant Street / Sunset Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0 2 0 1			2 0 2 0 1			1 0 1 0 1			2 0 1 0 1		
Volume Module:												
Base Vol:	30	1028	171	186	1026	19	26	75	34	214	60	170
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	1028	171	186	1026	19	26	75	34	214	60	170
Added Vol:	103	829	51	79	1045	91	58	4	59	71	6	22
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	133	1857	222	265	2071	110	84	79	93	285	66	192
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	133	1857	222	265	2071	110	84	79	93	285	66	192
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	133	1857	222	265	2071	110	84	79	93	285	66	192
RTOR Reduct:	0	0	157	0	0	84	0	0	0	0	0	0
RTOR Vol:	133	1857	65	265	2071	26	84	79	93	285	66	192
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	133	1857	65	265	2071	26	84	79	93	285	66	192
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	1650	3300	1650	3000	3300	1650	1650	1650	1650	3000	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.08	0.56	0.04	0.09	0.63	0.02	0.05	0.05	0.06	0.10	0.04	0.12
Crit Volume:	133				1036			79		143		
Crit Moves:	****				****			****		****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #11 Brentwood Blvd. @ Sunset Ct.

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: E[43.9]

Street Name:	Brentwood Blvd.						Sunset Ct.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1	1 0		0 0 2	0 0		0 0 0	0 0		0 0 0	0 1	
Volume Module:												
Base Vol:	0	1276	15	0	1268	0	0	0	0	0	0	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1276	15	0	1268	0	0	0	0	0	0	25
Added Vol:	0	969	0	0	1174	0	0	0	0	0	0	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2245	15	0	2442	0	0	0	0	0	0	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.94	0.94	0.94	1.00	1.00	1.00	0.57	0.57	0.57
PHF Volume:	0	2511	17	0	2609	0	0	0	0	0	0	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	2511	17	0	2609	0	0	0	0	0	0	71
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	1264
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	161
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	161
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.44
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	2.0
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	43.9
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	E
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			43.9		
ApproachLOS:	*			*			*			E		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #12 Brentwood Blvd. @ Havenwood Ave.

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: E[42.8]

Street Name:	Brentwood Blvd.						Havenwood Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 2	0	1	0 0 1	1	0	0 0 0	0	1	0 0 0	0	1
Volume Module:												
Base Vol:	0 1244	109		0 1277	2		0 0	3		0 0	53	
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	0 1244	109		0 1277	2		0 0	3		0 0	53	
Added Vol:	0 962	22		0 1174	0		0 0	14		0 0	7	
PasserByVol:	0 0	0		0 0	0		0 0	0		0 0	0	
Initial Fut:	0 2206	131		0 2451	2		0 0	17		0 0	60	
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	0.91 0.91	0.91		0.94 0.94	0.94		0.75 0.75	0.75		0.75 0.75	0.75	
PHF Volume:	0 2438	145		0 2607	2		0 0	23		0 0	80	
Reduct Vol:	0 0	0		0 0	0		0 0	0		0 0	0	
FinalVolume:	0 2438	145		0 2607	2		0 0	23		0 0	80	
Critical Gap Module:												
Critical Gp:	xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx	6.9		xxxxx xxxx	6.9	
FollowUpTim:	xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx	3.3		xxxxx xxxx	3.3	
Capacity Module:												
Cnflict Vol:	xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx	1305		xxxx xxxx	1219	
Potent Cap.:	xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx	151		xxxx xxxx	172	
Move Cap.:	xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx	151		xxxx xxxx	172	
Volume/Cap:	xxxx xxxx	xxxx		xxxx xxxx	xxxx		xxxx xxxx	0.15		xxxx xxxx	0.46	
Level Of Service Module:												
2Way95thQ:	xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx	0.5		xxxx xxxx	2.2	
Control Del:	xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx	33.1		xxxxx xxxx	42.8	
LOS by Move:	* *	*		* *	*		* *	D		* *	E	
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx	xxxxx	
SharedQueue:	xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx	
Shrd ConDel:	xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx	
Shared LOS:	* *	*		* *	*		* *	*		* *	*	
ApproachDel:	xxxxxx			xxxxxx			33.1			42.8		
ApproachLOS:	*			*			D			E		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #13 Brentwood Blvd. @ Applewood Common

Cycle (sec):	100	Critical Vol./Cap.(X):	0.883
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	D

Street Name:	Brentwood Blvd.						Applewood Common					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	1 0	1	1 0	1 0	1
Volume Module:												
Base Vol:	25	1347	58	106	1312	16	13	0	17	115	3	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	1347	58	106	1312	16	13	0	17	115	3	19
Added Vol:	65	873	21	42	1095	52	77	0	70	48	0	34
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	90	2220	79	148	2407	68	90	0	87	163	3	53
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	90	2220	79	148	2407	68	90	0	87	163	3	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	2220	79	148	2407	68	90	0	87	163	3	53
RTOR Reduct:	0	0	79	0	0	68	0	0	0	0	0	53
RTOR Vol:	90	2220	0	148	2407	0	90	0	87	163	3	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	90	2220	0	148	2407	0	90	0	87	163	3	0
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1650	3300	1650	1650	3300	1650	1650	1650	1650	1650	1650	1650
Capacity Analysis Module:												
Vol/Sat:	0.05	0.67	0.00	0.09	0.73	0.00	0.05	0.00	0.05	0.10	0.00	0.00
Crit Volume:	90				1204			0		163		
Crit Moves:	****				****			****		****		

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #14 Brentwood Blvd. @ Sand Creek Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.847
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	122	Level Of Service:	D

Street Name:	Brentwood Blvd.						Sand Creek Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ignore			Include			Include		
Min. Green:	4	10	10	4	10	10	4	4	4	4	4	4
Lanes:	1 0	2 0	1	1 0	2 0	1	2 0	2 0	1	1 0	1 1	1
Volume Module:												
Base Vol:	187	877	0	0	878	176	270	0	231	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	187	877	0	0	878	176	270	0	231	0	0	0
Added Vol:	112	495	52	114	609	490	296	52	84	78	78	168
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	299	1372	52	114	1487	666	566	52	315	78	78	168
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	299	1372	52	114	1487	666	566	52	315	78	78	168
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	299	1372	52	114	1487	666	566	52	315	78	78	168
RTOR Reduct:	0	0	52	0	0	0	0	0	299	0	0	114
RTOR Vol:	299	1372	0	114	1487	666	566	52	16	78	78	54
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	299	1372	0	114	1487	666	566	52	16	78	78	54
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	0.91
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	1.77	1.23
Final Sat.:	1650	3300	1650	1650	3300	1650	3000	3300	1650	1650	2925	1841
Capacity Analysis Module:												
Vol/Sat:	0.18	0.42	0.00	0.07	0.45	0.40	0.19	0.02	0.01	0.05	0.03	0.03
Crit Volume:	299				744		283				44	
Crit Moves:	****				****		****				****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #17 Brentwood Blvd. @ Village Drive

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: C[18.6]

Street Name:	Brentwood Blvd.						Village Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1	1 0		0 0 1	0 0		0 0 0	0 0		0 0 0	0 1	
Volume Module:												
Base Vol:	0 1080	46		0 1084	0		0	0		0	0	17
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	0 1080	46		0 1084	0		0	0		0	0	17
Added Vol:	0 450	10		0 678	0		0	0		0	0	41
PasserByVol:	0 0	0		0 0	0		0	0		0	0	0
Initial Fut:	0 1530	56		0 1762	0		0	0		0	0	58
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	0.93 0.93	0.93		0.91 0.91	0.91		1.00 1.00	1.00		0.60 0.60	0.60	
PHF Volume:	0 1640	60		0 1928	0		0	0		0	0	97
Reduct Vol:	0 0	0		0 0	0		0	0		0	0	0
FinalVolume:	0 1640	60		0 1928	0		0	0		0	0	97
Critical Gap Module:												
Critical Gp:	xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx		6.2
FollowUpTim:	xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx		3.3
Capacity Module:												
Cnflict Vol:	xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx		850
Potent Cap.:	xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx		360
Move Cap.:	xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx		360
Volume/Cap:	xxxx xxxx	xxxx		xxxx xxxx	xxxx		xxxx xxxx	xxxx		xxxx xxxx		0.27
Level Of Service Module:												
2Way95thQ:	xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx		1.1
Control Del:	xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx		18.6
LOS by Move:	* *	*		* *	*		* *	*		* *		C
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx	xxxxx		xxxx xxxx		xxxxx
SharedQueue:	xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx		xxxxx
Shrd ConDel:	xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx		xxxxx xxxx		xxxxx
Shared LOS:	* *	*		* *	*		* *	*		* *		*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			18.6		
ApproachLOS:	*			*			*			C		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #18 Brentwood Blvd. @ Central Blvd / Sycamore Ave (S)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.675
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	B

Street Name:	Brentwood Blvd.						Central Blvd / Sycamore Ave (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	4	15	15	4	10	10	4	4	4	4	4	4
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 0	1
Volume Module:												
Base Vol:	50	804	81	126	722	191	195	101	42	47	83	103
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	804	81	126	722	191	195	101	42	47	83	103
Added Vol:	3	301	10	66	495	117	61	4	2	16	6	98
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	53	1105	91	192	1217	308	256	105	44	63	89	201
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	53	1105	91	192	1217	308	256	105	44	63	89	201
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	1105	91	192	1217	308	256	105	44	63	89	201
RTOR Reduct:	0	0	0	0	0	0	0	0	0	0	0	192
RTOR Vol:	53	1105	91	192	1217	308	256	105	44	63	89	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	53	1105	91	192	1217	308	256	105	44	63	89	9
Saturation Flow Module:												
Sat/Lane:	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.85	0.15	1.00	1.60	0.40	1.00	1.41	0.59	1.00	1.00	1.00
Final Sat.:	1720	3178	262	1720	2745	695	1720	2424	1016	1720	1720	1720
Capacity Analysis Module:												
Vol/Sat:	0.03	0.35	0.35	0.11	0.44	0.44	0.15	0.04	0.04	0.04	0.05	0.01
Crit Volume:	53					763	256				89	
Crit Moves:	****					****	****				****	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #22 Brentwood Blvd @ Pine Street

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: B[13.5]

Street Name:	Brentwood Blvd						Pine Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1	1 0		0 0 2	0 0		0 0 0	0 0		0 0 0	0 1	
Volume Module:												
Base Vol:	0	885	24	0	832	0	0	0	0	0	0	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	885	24	0	832	0	0	0	0	0	0	22
Added Vol:	0	282	0	0	513	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1167	24	0	1345	0	0	0	0	0	0	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1167	24	0	1345	0	0	0	0	0	0	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1167	24	0	1345	0	0	0	0	0	0	22
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	596
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	447
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	447
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.05
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.2
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	13.5
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	B
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			13.5		
ApproachLOS:	*			*			*			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #27 Brentwood Blvd. @ Chestnut St.

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: C[18.0]

Street Name:	Brentwood Blvd.						Chestnut St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 0 1 0 0			0 0 0 0 0			0 0 0 0 1		
Volume Module:												
Base Vol:	0	771	39	0	756	0	0	0	0	0	0	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	771	39	0	756	0	0	0	0	0	0	19
Added Vol:	0	207	0	0	375	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	978	39	0	1131	0	0	0	0	0	0	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	978	39	0	1131	0	0	0	0	0	0	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	978	39	0	1131	0	0	0	0	0	0	19
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	998
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	296
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	296
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.06
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.2
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	18.0
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	C
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			18.0		
ApproachLOS:	*			*			*			C		

Note: Queue reported is the number of cars per lane.

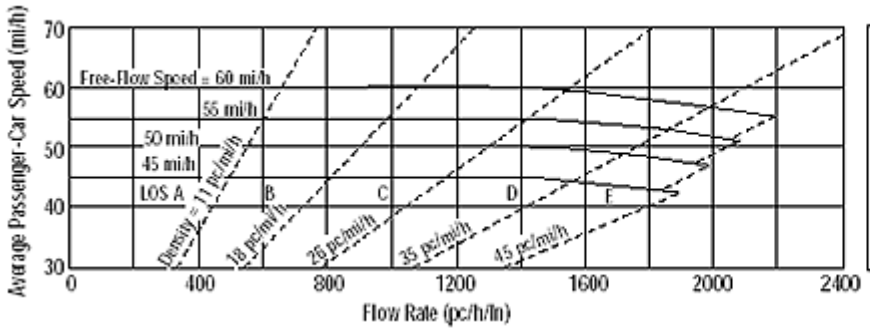
Level Of Service Computation Report
CCTALOS Method (Future Volume Alternative)

Intersection #28 Brentwood Blvd. @ Balfour Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	0.772
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Street Name:	Brentwood Blvd.						Balfour Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	8	10	10	6	10	10	5	5	5	4	5	5
Lanes:	2 0 2	0	1	1 0 2	0	1	1 0 1	0	1	1 0 1	1	0
Volume Module:												
Base Vol:	475	443	51	134	430	228	275	556	484	66	386	144
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	475	443	51	134	430	228	275	556	484	66	386	144
Added Vol:	0	183	5	40	335	0	0	0	0	8	0	24
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	475	626	56	174	765	228	275	556	484	74	386	168
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	475	626	56	174	765	228	275	556	484	74	386	168
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	475	626	56	174	765	228	275	556	484	74	386	168
RTOR Reduct:	0	0	56	0	0	228	0	0	261	0	0	0
RTOR Vol:	475	626	0	174	765	0	275	556	223	74	386	168
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	475	626	0	174	765	0	275	556	223	74	386	168
Saturation Flow Module:												
Sat/Lane:	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Adjustment:	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.39	0.61
Final Sat.:	3000	3300	1650	1650	3300	1650	1650	1650	1650	1650	2299	1001
Capacity Analysis Module:												
Vol/Sat:	0.16	0.19	0.00	0.11	0.23	0.00	0.17	0.34	0.14	0.04	0.17	0.17
Crit Volume:	238				383			556		74		
Crit Moves:	****				****			****		****		

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	O
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/16/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Lone Tree Wy.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP+PP (MITG.)

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	727	Peak-Hour Factor, PHF	0.92
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	4
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.982

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearence, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

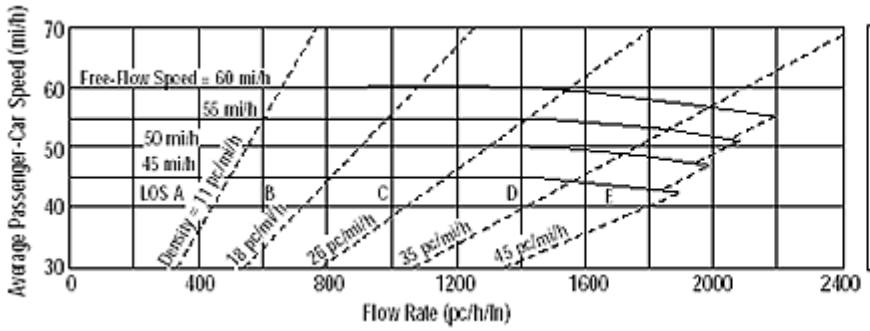
Flow Rate, v_p (pc/h/ln)	402
Speed, S (mi/h)	45.0
D (pc/mi/ln)	8.9
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	O
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/16/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Lone Tree Wy.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP+PP (MITG.)

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	826	Peak-Hour Factor, PHF	0.92
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	4
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.982

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearence, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

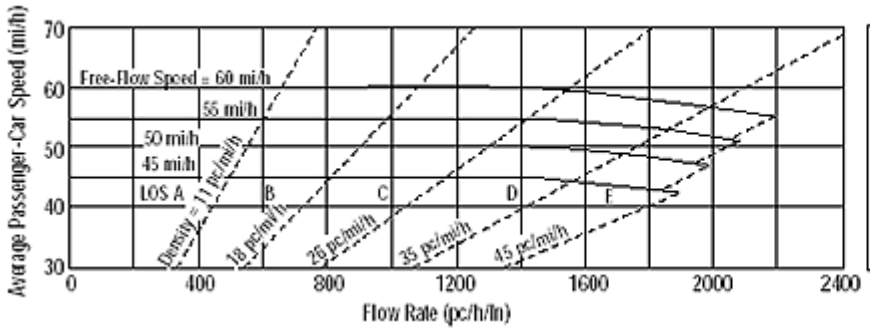
Flow Rate, v_p (pc/h/ln)	456
Speed, S (mi/h)	45.0
D (pc/mi/ln)	10.1
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	O
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/16/2007
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	Lone Tree Wy.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP+PP (MITG.)

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	948	Peak-Hour Factor, PHF	0.92
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	4
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.982

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearence, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

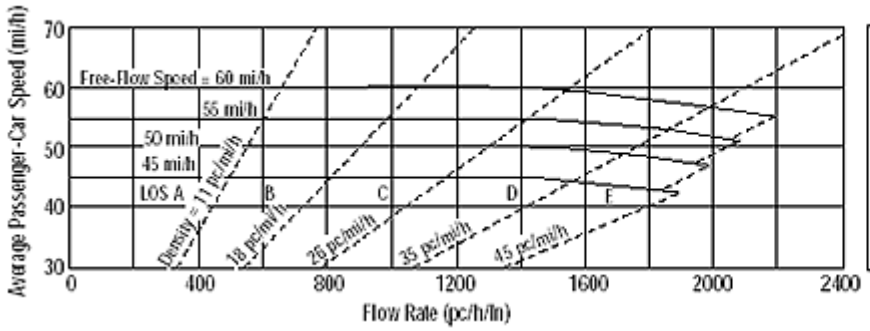
Flow Rate, v_p (pc/h/ln)	524
Speed, S (mi/h)	45.0
D (pc/mi/ln)	11.6
LOS	B

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	O
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v_p
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v_p

General Information

Analyst	Kimley-Horn and Associates
Agency or Company	
Date Performed	11/16/2007
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	Lone Tree Wy.
From/To	West of Brentwood Blvd.
Jurisdiction	City of Brentwood
Analysis Year	Existing+AP+PP (MITG.)

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	1036	Peak-Hour Factor, PHF	0.92
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	4
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.982

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearence, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	573
Speed, S (mi/h)	45.0
D (pc/mi/ln)	12.7
LOS	B

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

APPENDIX E

Kimley-Horn
and Associates, Inc.

July 30, 2007

Mr. Nick Pappani
Raney Planning and Management, Inc.
1401 Halyard Drive, Suite 120
West Sacramento, CA 95691

Suite 120
1430 Blue Oaks Boulevard
Roseville, California
95747

Re: Brentwood Boulevard Specific Plan DEIR- Supplemental Analysis
Brentwood, California
KHA Project No.: 097464000

Dear Mr. Pappani:

I am writing to present the results of our traffic evaluation for the additional transportation facilities analyzed for the Brentwood Boulevard Specific Plan (the "proposed project"). The purpose of this letter is to summarize the evaluation of weekday Level of Service (LOS) and the traffic signal needs assessment for selected roadway facilities.

Facilities Analyzed
This supplemental analysis includes a roadway segment Level of Service (LOS) analysis for the following roadways:

1. Sellers Avenue between E. Cypress Road and Delta Road
2. Sellers Avenue between Delta Road and Sunset Road
3. Sellers Avenue between Sunset Road and Chestnut Street
4. Sellers Avenue between Chestnut Street and Balfour Road
5. Sellers Avenue between Balfour Road and SR-4
6. O'Hara Avenue North of Central Boulevard

These facilities are depicted in Attachment A. This letter also includes a summary of a planning level assessment of the need for signalization based on peak-hour warrant methodologies for the following location:

1. O'Hara Avenue at the proposed southerly project roadway.

The analysis of the above-listed facilities was conducted in a manner described in the Brentwood Boulevard Specific Plan Traffic Impact Analysis, dated April 11, 2008, (the "TIA"). Where appropriate, traffic count data from the TIA was used for this additional analysis.

Roadway Segment Analysis

Existing Conditions
Analysis of Existing Conditions at the study facilities was based on peak-hour traffic volumes presented in the TIA, if available. Additional peak-hour traffic counts collected at the intersection of Sellers Avenue and Balfour Road, and 24 hour traffic counts on the roadway segment of O'Hara Avenue, north of Central Boulevard. These additional counts were conducted in June 2008. For this scenario,

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FAX 916 797 3804

all study area roadways are assumed to be two lane facilities. Table 1 displays the peak-hour operating conditions for the study roadway segments.

Table 1 – Roadway Segment Levels of Service – Existing Conditions

#	Roadway Segment	AM Peak-Hour		PM Peak-Hour	
		% Time-Spent Following	LOS	% Time-Spent Following	LOS
1	Sellers Ave. between E. Cypress Rd. and Delta Rd.	38.3	A	38.1	A
2	Sellers Ave. between Delta Rd. and Sunset Rd.	45.6	B	38.1	A
3	Sellers Ave. between Sunset Rd. and Chestnut St.	44.7	B	42.3	B
4	Sellers Ave. between Chestnut St. and Balfour Rd.	35.6	A	37.6	A
5	Sellers Ave. between Balfour Rd. and SR-4	34.1	A	40.1	B
6	O'Hara Ave. North of Central Boulevard	64.2	C	76.7	D

As indicated in Table 1, the study roadway segments operate at LOS A through LOS D during the AM and PM peak-hours. Analysis worksheets for this scenario are provided in Attachment B.

Existing plus Approved Projects Conditions

Analysis of Existing plus Approved Projects Conditions at the study facilities was based on peak-hour traffic volumes presented in the TIA. For this scenario, all study area roadways are assumed to be two lane facilities. Table 2 displays the peak-hour operating conditions for the study roadway segments.

As indicated in Table 2, the study roadway segments operate at LOS A through LOS D during the AM and PM peak- hours. Analysis worksheets for this scenario are provided in Attachment C.

Table 2 – Roadway Segment Levels of Service –
Existing plus Approved Projects Conditions

#	Roadway Segment	AM Peak-Hour		PM Peak-Hour	
		% Time-Spent Following	LOS	% Time-Spent Following	LOS
1	Sellers Ave. between E. Cypress Rd. and Delta Rd.	38.3	A	38.1	A
2	Sellers Ave. between Delta Rd. and Sunset Rd.	45.6	B	38.1	A
3	Sellers Ave. between Sunset Rd. and Chestnut St.	45.6	B	43.4	B
4	Sellers Ave. between Chestnut St. and Balfour Rd.	36.5	A	38.7	A
5	Sellers Ave. between Balfour Rd. and SR-4	35.4	A	41.5	B
6	O'Hara Ave. North of Central Boulevard	64.2	C	76.7	D

Existing plus Approved Projects plus Proposed Project Conditions

Analysis of Existing plus Approved Projects plus Proposed Project Conditions at the study facilities was based on peak-hour traffic volumes presented in the TIA. For this scenario, all study area roadways are assumed to be two lane facilities. Table 3 displays the peak-hour operating conditions for the study roadway segments.

As indicated in Table 3, the study area roadway segments operate at LOS A trough LOS D during the AM and PM peak- hours. Analysis worksheets for this scenario are provided in Attachment D.

Cumulative (2030) Conditions

Analysis of Cumulative Conditions at the study facilities was based on peak-hour traffic volumes presented in the TIA. For this analysis scenario, O'Hara Avenue is assumed to be converted to a four lane roadway and all other study roadway segments are assumed to remain two lane roadways. Table 4 and Table 5 display the peak-hour operating conditions for the two lane and four lane study roadway segments, respectively.

As indicated in Table 4 and Table 5, the study roadway segments operate at LOS A through LOS C during the AM and PM peak-hours. Analysis worksheets for this scenario are provided in Attachment E.

Table 3 – Roadway Segment Levels of Service – Existing plus Approved Projects and Existing plus Approved Projects plus Proposed Project Conditions

#	Roadway Segment	Scenario	AM Peak-Hour		PM Peak-Hour	
			% Time-Spent Following	LOS	% Time-Spent Following	LOS
1	Sellers Ave. between E. Cypress Rd. and Delta Rd.	EPAP	38.3	A	38.1	A
		EPAP + PP	38.3	A	38.1	A
2	Sellers Ave. between Delta Rd. and Sunset Rd.	EPAP	45.6	B	38.1	A
		EPAP + PP	48.2	B	41.3	B
3	Sellers Ave. between Sunset Rd. and Chestnut St.	EPAP	45.6	B	43.4	B
		EPAP + PP	46.7	B	44.6	B
4	Sellers Ave. between Chestnut St. and Balfour Rd.	EPAP	36.5	A	38.7	A
		EPAP + PP	37.8	A	39.9	A
5	Sellers Ave. between Balfour Rd. and SR-4	EPAP	35.4	A	41.5	B
		EPAP + PP	36.9	A	42.8	B
6	O'Hara Ave. North of Central Boulevard	EPAP	64.2	C	76.7	D
		EPAP + PP	65.9	C	78.2	D

Note: EPAP = Existing plus Approved Projects
EPAP + PP = Existing plus Approved Projects plus Proposed Project

Table 4 – Roadway Segment Levels of Service for Two Lane Roadways – Cumulative Conditions

#	Roadway Segment	AM Peak-Hour		PM Peak-Hour	
		% Time-Spent Following	LOS	% Time-Spent Following	LOS
1	Sellers Ave. between E. Cypress Rd. and Delta Rd.	30.3	A	45.1	B
2	Sellers Ave. between Delta Rd. and Sunset Rd.	43.0	B	48.3	B
3	Sellers Ave. between Sunset Rd. and Chestnut St.	53.2	B	54.7	B
4	Sellers Ave. between Chestnut St. and Balfour Rd.	54.7	B	56.2	C
5	Sellers Ave. between Balfour Rd. and SR-4	62.1	C	63.2	C

Table 5 – Roadway Segment Levels of Service for Four Lane Roadways – Cumulative Conditions

#	Roadway Segment	Direction	AM Peak-Hour		PM Peak-Hour	
			Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
6	O'Hara Ave. North of Central Boulevard	Northbound	2.4	A	6.6	A
		Southbound	7.0	A	4.4	A

Cumulative plus Proposed Project Conditions

Analysis of Cumulative plus Proposed Project Conditions at the study facilities was based on peak-hour traffic volumes presented in the TIA. Table 6 and Table 7 display the peak-hour operating conditions for the two lane and four lane study roadway segments, respectively.

Table 6 – Roadway Segment Levels of Service for Two lane Roadways – Cumulative and Cumulative plus Proposed Project Conditions

#	Roadway Segment	Scenario	AM Peak-Hour		PM Peak-Hour	
			% Time-Spent Following	LOS	% Time-Spent Following	LOS
1	Sellers Ave. between E. Cypress Rd. and Delta Rd.	Cum	30.3	A	45.1	B
		Cum + PP	30.0	A	42.7	B
2	Sellers Ave. between Delta Rd. and Sunset Rd.	Cum	43.0	B	48.3	B
		Cum + PP	42.2	B	44.8	B
3	Sellers Ave. between Sunset Rd. and Chestnut St.	Cum	53.2	B	54.7	B
		Cum + PP	50.9	B	52.4	B
4	Sellers Ave. between Chestnut St. and Balfour Rd.	Cum	54.7	B	56.2	C
		Cum + PP	53.9	B	53.8	B
5	Sellers Ave. between Balfour Rd. and SR-4	Cum	62.1	C	63.2	C
		Cum + PP	62.8	C	62.0	C

Note: Cum = Cumulative
Cum + PP = Cumulative plus Proposed Project

As indicated in Table 6 and Table 7, the study roadway segments operate at LOS A through LOS C during the AM and PM peak-hours. Analysis worksheets for this scenario are provided in Attachment F.

Table 7 – Roadway Segment Levels of Service for Four lane Roadways – Cumulative plus Proposed Project Conditions

#	Roadway Segment	Direction	Scenario	AM Peak-Hour		PM Peak-Hour	
				Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
6	O'Hara Ave. North of Central Boulevard	NB	Cum	2.4	A	6.6	A
			Cum + PP	2.4	A	6.2	A
		SB	Cum	7.0	A	4.4	A
			Cum + PP	7.0	A	4.4	A

Note: Cum = Cumulative
Cum + PP = Cumulative plus Proposed Project

Assessment of Impacts

As shown in Table 3, Table 6 and Table 7, the project does not cause any of the roadway segments studied to fall below the City's LOS D threshold. As a result, the impact of the project on these roadways is expected to be less than significant.

Traffic Signal Needs Assessment

A planning level assessment of the need for traffic signalization was performed for the following un-signalized intersection:

- O'Hara Avenue at the Proposed Southerly Project Roadway

The peak-hour traffic signal warrant was analyzed for the same scenarios studied for the LOS analysis. This evaluation was consistent with the peak-hour warrant methodologies noted in Section 4C of the *California Manual on Uniform Traffic Control Devices (CMUTCD)*, September 26, 2006.

The study intersection satisfies the peak-hour traffic signal warrant under the Existing plus Approved Projects plus Proposed Project and Cumulative plus Proposed Project analysis scenarios for both the AM and PM peak-hours. Detailed results of this analysis are presented in Attachment G.

Conclusions

Based on the documented analyses, we would like to offer the following conclusions:

- The proposed project will not cause the study roadway segments included in this supplemental analysis to degrade below the City's level of service threshold of LOS D. As a result, the project does not result in a significant impact on any of the study area roadways.
- The addition of the proposed project will result in the peak-hour signal warrant at the intersection of O'Hara Avenue and the proposed southerly project

roadway being satisfied under the Existing plus Approved Projects Conditions and Cumulative Conditions.

Please contact me at (916) 797-3811 if you have any questions or require additional information.

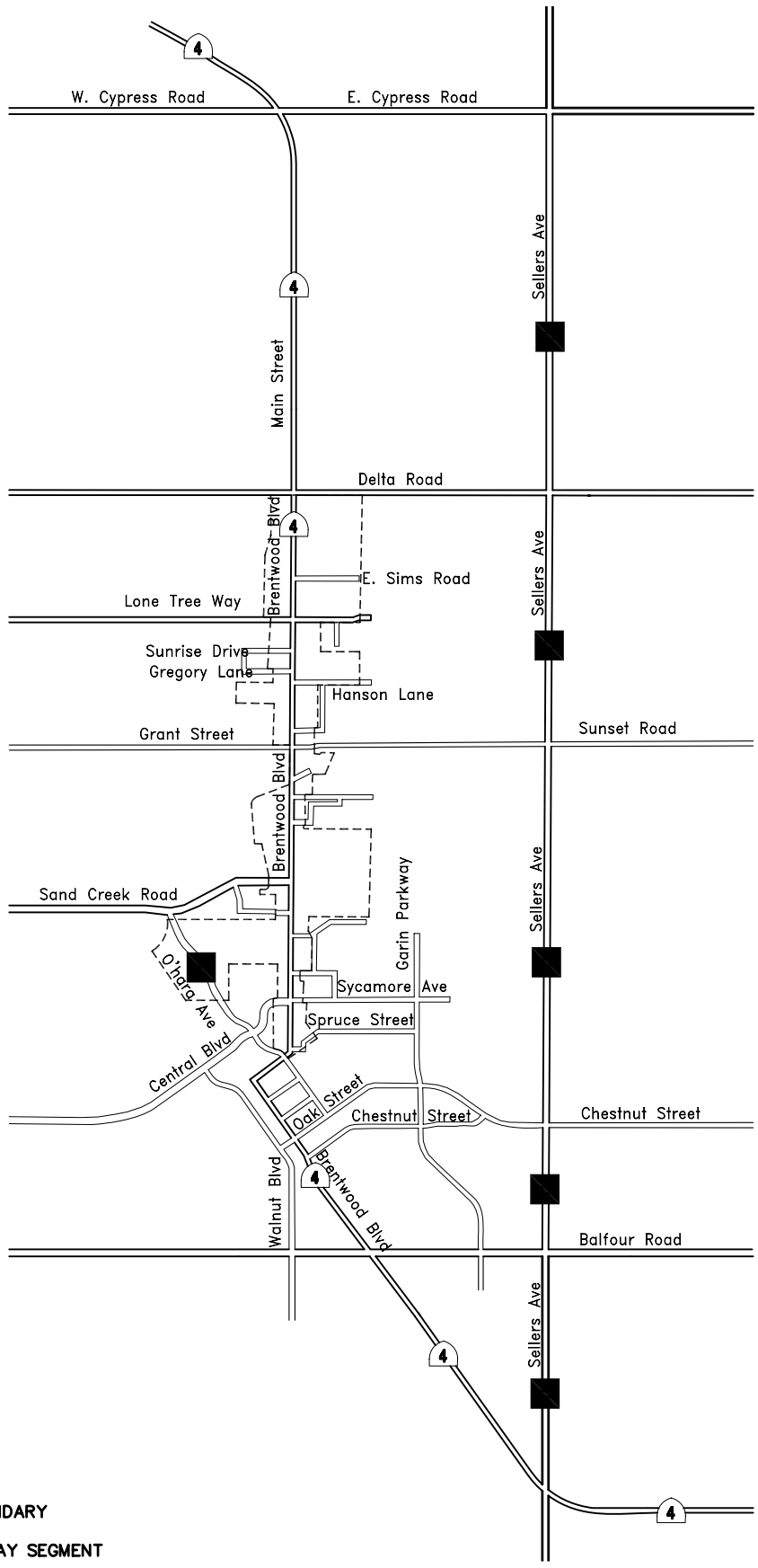
Very truly yours,

KIMLEY-HORN AND ASSOCIATES, INC.

Stephen M. Pyburn, C.E., T.E.
Senior Project Manager
PE No. C49598 & TR1904

Enclosures:

Attachment A – Project Location and Study Roadway Segments
Attachment B – Analysis Worksheets for Existing Conditions
Attachment C – Analysis Worksheets for Existing plus Approved Projects Conditions
Attachment D – Analysis Worksheets for Existing plus Approved Projects plus Proposed Project Conditions
Attachment E – Analysis Worksheets for Cumulative Conditions
Attachment F – Analysis Worksheets for Cumulative plus Proposed Project Conditions
Attachment G – Analysis Worksheets Peak-Hour Signal Warrants



NORTH
NOT TO SCALE

Kimley-Horn and Associates, Inc.

ATTACHMENT A

PROJECT LOCATION AND STUDY ROADWAY SEGMENTS

BRENTWOOD BOULEVARD SPECIFIC PLAN
BRENTWOOD, CA

Attachment B:

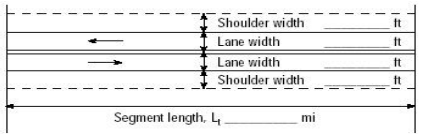
Analysis Worksheets for Existing Conditions

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*O'Hara Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*North of Central Boulevard*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*673* veh/h
Directional split	*57 / 43*
Peak-hour factor, PHF	*0.92*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*0*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*734*
v_p * highest directional split proportion[2] (pc/h)	*418*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*0.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*43.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*3.3*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*34.7*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*733*
v_p * highest directional split proportion[2] (pc/h)	*418*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*47.5*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*16.7*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*64.2*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.23*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*183*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*673*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*5.3*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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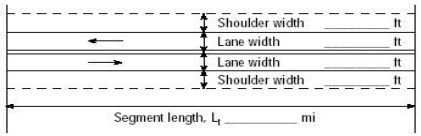
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Balfour Rd. and SR-4*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*248* veh/h
Directional split	*59 / 41*
Peak-hour factor, PHF	*0.92*
No-passing zone	*25*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*273*
v_p * highest directional split proportion[2] (pc/h)	*161*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*40.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.2*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*37.4*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*270*
v_p * highest directional split proportion[2] (pc/h)	*159*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*21.1*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*13.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*34.1*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.09*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*67*
Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*248*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*1.8*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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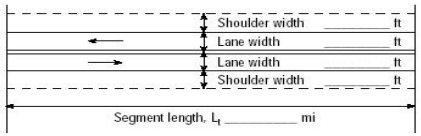
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Chestnut Rd. to Balfour Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*459* veh/h
Directional split	*50 / 50*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*506*
v_p * highest directional split proportion[2] (pc/h)	*253*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*40.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*36.8*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*500*
v_p * highest directional split proportion[2] (pc/h)	*250*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*35.6*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*35.6*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.16*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*62*
Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*230*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*1.7*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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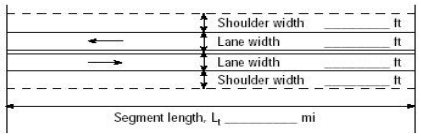
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*E. Cypress Rd to Delta Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*407* veh/h
Directional split	*62 / 38*
Peak-hour factor, PHF	*0.92*
No-passing zone	*10*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*449*
v_p * highest directional split proportion[2] (pc/h)	*278*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
		Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Field Measured speed, S_{FM}	*mi/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Observed volume, V_f	*veh/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.8*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*41.4*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*443*
v_p * highest directional split proportion[2] (pc/h)	*275*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*32.3*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*6.1*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*38.3*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.14*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*166*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*611*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*4.0*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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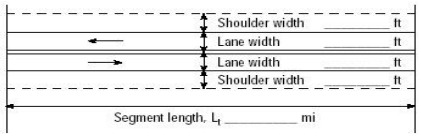
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Delta Rd to Sunset Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*635* veh/h
Directional split	*63 / 37*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*693*
v_p * highest directional split proportion[2] (pc/h)	*437*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*40.3*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*692*
v_p * highest directional split proportion[2] (pc/h)	*436*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*45.6*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*45.6*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.22*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*173*
Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*635*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*4.3*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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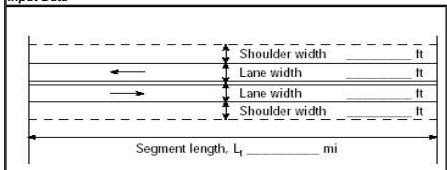
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Sunset Rd. to Chestnut Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*619* veh/h
Directional split	*58 / 42*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*676*
v_p * highest directional split proportion[2] (pc/h)	*392*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
		Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Field Measured speed, S_{FM}	*mi/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Observed volume, V_f	*veh/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*40.5*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*674*
v_p * highest directional split proportion[2] (pc/h)	*391*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*44.7*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*44.7*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.21*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*252*
Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*929*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*6.2*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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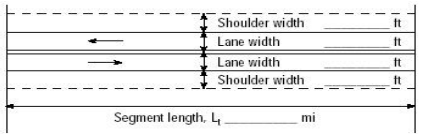
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*O'Hara Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*North of Central Boulevard*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*1165* veh/h
Directional split	*62 / 38*
Peak-hour factor, PHF	*0.92*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*0*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*1269*
v_p * highest directional split proportion[2] (pc/h)	*787*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*0.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*43.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*2.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*31.9*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*1266*
v_p * highest directional split proportion[2] (pc/h)	*785*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*67.1*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*9.5*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*76.7*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*D*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.40*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*317*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*1165*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*9.9*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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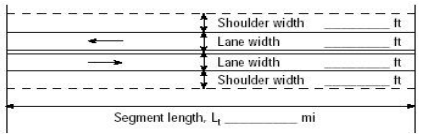
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Balfour Rd. and SR-4*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*326* veh/h
Directional split	*64 / 36*
Peak-hour factor, PHF	*0.92*
No-passing zone	*25*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*359*
v_p * highest directional split proportion[2] (pc/h)	*230*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*40.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.7*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*36.2*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*355*
v_p * highest directional split proportion[2] (pc/h)	*227*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*26.8*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*13.3*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*40.1*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.11*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*89*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*326*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*2.5*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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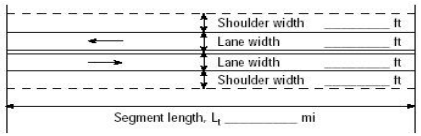
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Chestnut Rd. to Balfour Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*489* veh/h
Directional split	*62 / 38*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*539*
v_p * highest directional split proportion[2] (pc/h)	*334*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*40.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*36.5*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*533*
v_p * highest directional split proportion[2] (pc/h)	*330*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*37.4*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.2*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*37.6*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.17*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*66*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*245*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*1.8*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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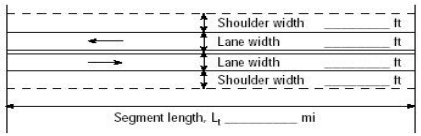
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*E. Cypress Rd to Delta Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*403* veh/h
Directional split	*56 / 44*
Peak-hour factor, PHF	*0.92*
No-passing zone	*10*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*444*
v_p * highest directional split proportion[2] (pc/h)	*249*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
		Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Field Measured speed, S_{FM}	*mi/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Observed volume, V_f	*veh/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.8*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*41.4*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*439*
v_p * highest directional split proportion[2] (pc/h)	*246*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*32.0*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*6.1*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*38.1*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.14*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*164*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*605*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*4.0*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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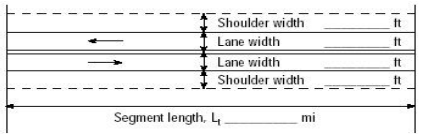
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Delta Rd to Sunset Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*500* veh/h
Directional split	*54 / 46*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*551*
v_p * highest directional split proportion[2] (pc/h)	*298*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*41.4*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*545*
v_p * highest directional split proportion[2] (pc/h)	*294*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*38.1*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.1*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*38.1*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.17*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*136*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*500*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*3.3*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

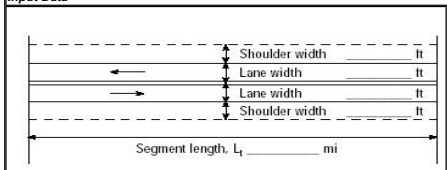
 HCS+™ Version 5.1 Generated: 6/18/2008 8:34 AM

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Sunset Rd. to Chestnut Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Existing*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*575* veh/h
Directional split	*58 / 42*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*628*
v_p * highest directional split proportion[2] (pc/h)	*364*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*40.8*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*626*
v_p * highest directional split proportion[2] (pc/h)	*363*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*42.3*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*42.3*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.20*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*234*
Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*863*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*5.7*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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file://C:\Documents and Settings\sean.papathakis\Local Settings\Temp\s2k1FEA.tmp 6/18/2008

Attachment C:

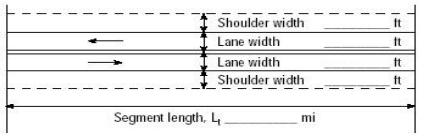
Analysis Worksheets for Existing plus Approved Projects Conditions

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*O'Hara Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*North of Central Boulevard*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*EPAP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*673* veh/h
Directional split	*57 / 43*
Peak-hour factor, PHF	*0.92*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*0*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*734*
v_p * highest directional split proportion[2] (pc/h)	*418*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*0.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*43.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*3.3*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*34.7*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*733*
v_p * highest directional split proportion[2] (pc/h)	*418*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*47.5*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*16.7*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*64.2*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.23*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*183*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*673*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*5.3*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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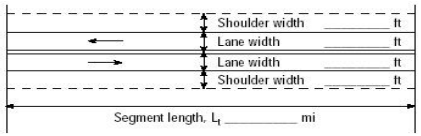
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Balfour Rd. and SR-4*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*EPAP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*264* veh/h
Directional split	*60 / 40*
Peak-hour factor, PHF	*0.92*
No-passing zone	*25*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*291*
v_p * highest directional split proportion[2] (pc/h)	*175*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*40.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.3*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*37.1*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*288*
v_p * highest directional split proportion[2] (pc/h)	*173*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*22.4*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*13.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*35.4*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.09*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*72*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*264*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*1.9*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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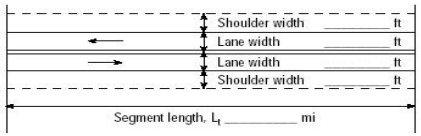
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Chestnut Rd. to Balfour Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*EPAP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*475* veh/h
Directional split	*51 / 49*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*524*
v_p * highest directional split proportion[2] (pc/h)	*267*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*40.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*36.6*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*517*
v_p * highest directional split proportion[2] (pc/h)	*264*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*36.5*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*36.5*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.16*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*65*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*238*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*1.8*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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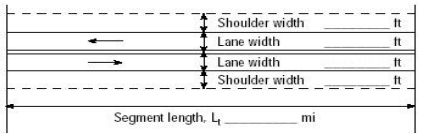
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*E. Cypress Rd to Delta Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*EPAP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*407* veh/h
Directional split	*62 / 38*
Peak-hour factor, PHF	*0.92*
No-passing zone	*10*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	*449*
v_p * highest directional split proportion[2] (pc/h)	*278*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f * f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.8*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*41.4*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	*443*
v_p * highest directional split proportion[2] (pc/h)	*275*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*32.3*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*6.1*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*38.3*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.14*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}= 0.25L_t(V/PHF)$	*166*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*611*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}= VMT_{15}/ATS$	*4.0*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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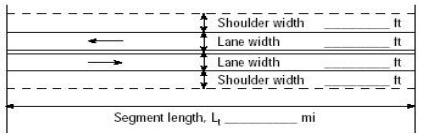
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Delta Rd to Sunset Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*EPAP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*635* veh/h
Directional split	*63 / 37*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*693*
v_p * highest directional split proportion[2] (pc/h)	*437*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*40.3*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*692*
v_p * highest directional split proportion[2] (pc/h)	*436*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*45.6*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*45.6*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c $v/c=V_p/3,200$	*0.22*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*173*
Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*635*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*4.3*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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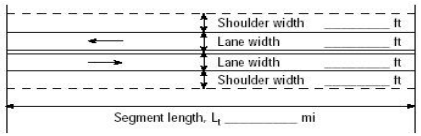
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Sunset Rd. to Chestnut Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*EPAP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*635* veh/h
Directional split	*58 / 42*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*693*
v_p * highest directional split proportion[2] (pc/h)	*402*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*40.3*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*692*
v_p * highest directional split proportion[2] (pc/h)	*401*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*45.6*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*45.6*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c $v/c=V_p/3,200$	*0.22*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*259*
Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*953*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*6.4*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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Two-Way Page 2 of 2

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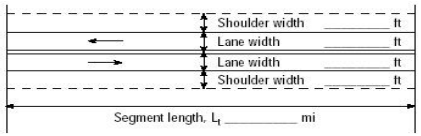
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*O'Hara Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*North of Central Boulevard*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*EPAP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*1165* veh/h
Directional split	*62 / 38*
Peak-hour factor, PHF	*0.92*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*0*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*1269*
v_p * highest directional split proportion[2] (pc/h)	*787*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
		Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Field Measured speed, S_{FM}	*mi/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Observed volume, V_f	*veh/h*	Adj. for access points, f_A (Exhibit 20-6)	*0.0 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*43.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*2.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*31.9*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*1266*
v_p * highest directional split proportion[2] (pc/h)	*785*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*67.1*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*9.5*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*76.7*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*D*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.40*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*317*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*1165*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*9.9*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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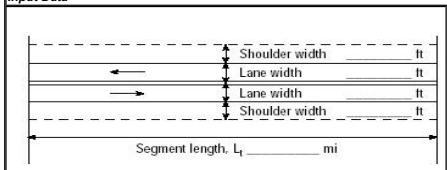
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Balfour Rd. and SR-4*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*EPAP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*346* veh/h
Directional split	*64 / 36*
Peak-hour factor, PHF	*0.92*
No-passing zone	*25*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	*381*
v_p * highest directional split proportion[2] (pc/h)	*244*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f * f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*40.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.8*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*35.9*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	*377*
v_p * highest directional split proportion[2] (pc/h)	*241*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*28.2*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*13.2*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*41.5*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.12*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}= 0.25L_t(V/PHF)$	*94*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*346*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}= VMT_{15}/ATS$	*2.6*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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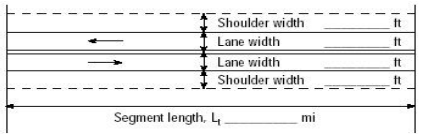
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Chestnut Rd. to Balfour Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*EPAP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*509* veh/h
Directional split	*62 / 38*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*561*
v_p * highest directional split proportion[2] (pc/h)	*348*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*40.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*36.3*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*554*
v_p * highest directional split proportion[2] (pc/h)	*343*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*38.6*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.1*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*38.7*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.18*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*69*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*255*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*1.9*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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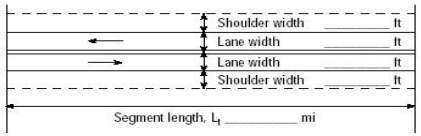
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*E. Cypress Rd to Delta Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*EPAP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*403* veh/h
Directional split	*56 / 44*
Peak-hour factor, PHF	*0.92*
No-passing zone	*10*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*444*
v_p * highest directional split proportion[2] (pc/h)	*249*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.8*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*41.4*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*439*
v_p * highest directional split proportion[2] (pc/h)	*246*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*32.0*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*6.1*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*38.1*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.14*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*164*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*605*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*4.0*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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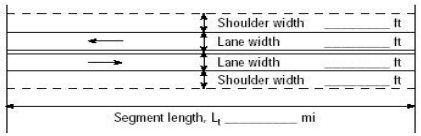
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Delta Rd to Sunset Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*EPAP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*500* veh/h
Directional split	*54 / 46*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*551*
v_p * highest directional split proportion[2] (pc/h)	*298*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*41.4*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*545*
v_p * highest directional split proportion[2] (pc/h)	*294*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*38.1*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.1*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*38.1*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.17*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*136*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*500*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*3.3*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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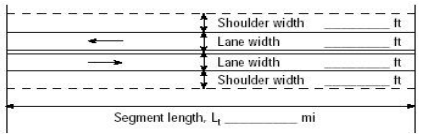
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Sunset Rd. to Chestnut Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*EPAP*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*595* veh/h
Directional split	*58 / 42*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*649*
v_p * highest directional split proportion[2] (pc/h)	*376*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*40.7*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*648*
v_p * highest directional split proportion[2] (pc/h)	*376*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*43.4*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*43.4*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.20*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*243*
Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*893*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*6.0*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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Attachment D:

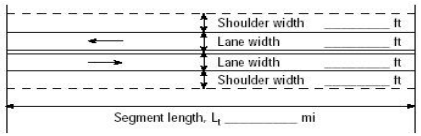
Analysis Worksheets for Existing plus Approved Projects plus Proposed Project Conditions

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*O'Hara Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*North of Central Boulevard*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*EPAP + Project*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*748* veh/h
Directional split	*55 / 45*
Peak-hour factor, PHF	*0.92*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*0*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*816*
v_p * highest directional split proportion[2] (pc/h)	*449*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*0.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*43.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*3.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*34.4*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*815*
v_p * highest directional split proportion[2] (pc/h)	*448*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*51.1*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*14.7*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*65.9*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.25*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*203*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*748*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*5.9*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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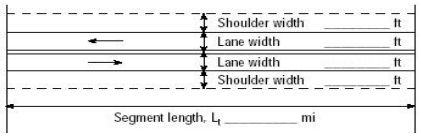
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Balfour Rd. and SR-4*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*EPAP + Project*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*286* veh/h
Directional split	*58 / 42*
Peak-hour factor, PHF	*0.92*
No-passing zone	*25*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*315*
v_p * highest directional split proportion[2] (pc/h)	*183*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*40.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.5*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*36.8*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*311*
v_p * highest directional split proportion[2] (pc/h)	*180*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*23.9*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*13.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*36.9*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.10*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*78*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*286*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*2.1*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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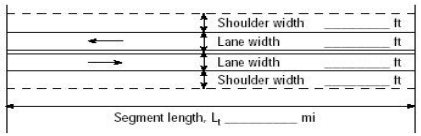
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Chestnut Rd. to Balfour Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*EPAP + Project*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*497* veh/h
Directional split	*50 / 50*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*548*
v_p * highest directional split proportion[2] (pc/h)	*274*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*40.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*36.4*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*541*
v_p * highest directional split proportion[2] (pc/h)	*271*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*37.8*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*37.8*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.17*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*68*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*249*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*1.9*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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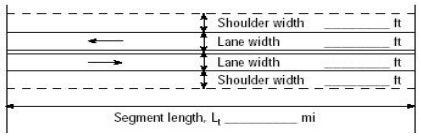
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*E. Cypress Rd to Delta Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*EPAP + Project*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*407* veh/h
Directional split	*62 / 38*
Peak-hour factor, PHF	*0.92*
No-passing zone	*10*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*449*
v_p * highest directional split proportion[2] (pc/h)	*278*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.8*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*41.4*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*443*
v_p * highest directional split proportion[2] (pc/h)	*275*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*32.3*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*6.1*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*38.3*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.14*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*166*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*611*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*4.0*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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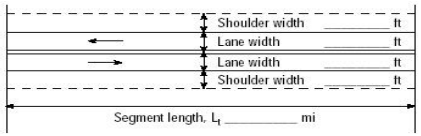
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Delta Rd to Sunset Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*EPAP + Project*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*688* veh/h
Directional split	*62 / 38*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*751*
v_p * highest directional split proportion[2] (pc/h)	*466*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
		Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Field Measured speed, S_{FM}	*mi/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Observed volume, V_f	*veh/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*39.9*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*749*
v_p * highest directional split proportion[2] (pc/h)	*464*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*48.2*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*48.2*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.23*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*187*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*688*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*4.7*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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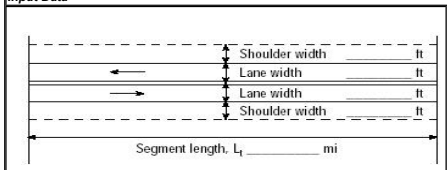
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Sunset Rd. to Chestnut Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*EPAP + Project*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*657* veh/h
Directional split	*57 / 43*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*717*
v_p * highest directional split proportion[2] (pc/h)	*409*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*40.1*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*716*
v_p * highest directional split proportion[2] (pc/h)	*408*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*46.7*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*46.7*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.22*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*268*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*986*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*6.7*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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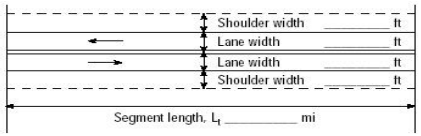
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*O'Hara Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*North of Central Boulevard*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*EPAP + Project*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*1247* veh/h
Directional split	*60 / 40*
Peak-hour factor, PHF	*0.92*
No-passing zone	*100*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*0*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*1358*
v_p * highest directional split proportion[2] (pc/h)	*815*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*0.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*43.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.8*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*31.4*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*1355*
v_p * highest directional split proportion[2] (pc/h)	*813*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*69.6*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*8.6*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*78.2*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*D*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.42*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*339*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*1247*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*10.8*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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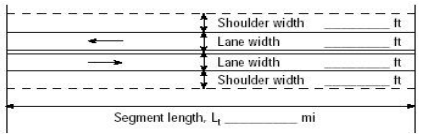
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Balfour Rd. and SR-4*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*EPAP + Project*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*368* veh/h
Directional split	*63 / 37*
Peak-hour factor, PHF	*0.92*
No-passing zone	*25*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*406*
v_p * highest directional split proportion[2] (pc/h)	*256*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
		Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Field Measured speed, S_{FM}	*mi/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Observed volume, V_f	*veh/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*40.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.9*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*35.6*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*401*
v_p * highest directional split proportion[2] (pc/h)	*253*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*29.7*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*13.1*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*42.8*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.13*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*100*
Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*368*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*2.8*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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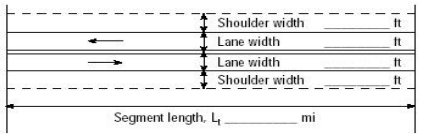
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Chestnut Rd. to Balfour Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*EPAP + Project*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*531* veh/h
Directional split	*61 / 39*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*585*
v_p * highest directional split proportion[2] (pc/h)	*357*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*40.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*36.2*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*578*
v_p * highest directional split proportion[2] (pc/h)	*353*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*39.8*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.1*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*39.9*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.18*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*72*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*266*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*2.0*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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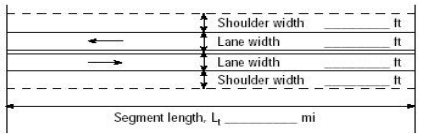
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*E. Cypress Rd to Delta Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*EPAP + Project*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*403* veh/h
Directional split	*56 / 44*
Peak-hour factor, PHF	*0.92*
No-passing zone	*10*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*444*
v_p * highest directional split proportion[2] (pc/h)	*249*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.8*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*41.4*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*439*
v_p * highest directional split proportion[2] (pc/h)	*246*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*32.0*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*6.1*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*38.1*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.14*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*164*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*605*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*4.0*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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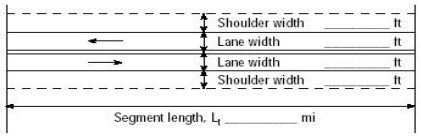
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Delta Rd to Sunset Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*EPAP + Project*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*557* veh/h
Directional split	*54 / 46*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	*608*
v_p * highest directional split proportion[2] (pc/h)	*328*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f * f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*41.0*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	*607*
v_p * highest directional split proportion[2] (pc/h)	*328*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*41.3*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*41.3*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c $v/c=V_p/3,200$	*0.19*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*151*
Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*557*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*3.7*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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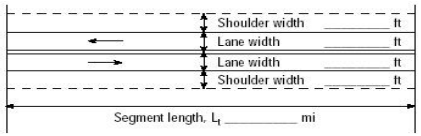
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Sunset Rd. to Chestnut Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*EPAP + Project*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*617* veh/h
Directional split	*57 / 43*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	*673*
v_p * highest directional split proportion[2] (pc/h)	*384*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
		Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Field Measured speed, S_{FM}	*mi/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Observed volume, V_f	*veh/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f * f_{HV})$	*mi/h*	Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*40.5*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	*672*
v_p * highest directional split proportion[2] (pc/h)	*383*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*44.6*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*44.6*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.21*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}= 0.25L_t(V/PHF)$	*251*
Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*926*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}= VMT_{15}/ATS$	*6.2*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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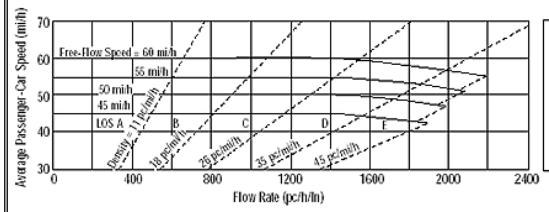
Appendix E:

Analysis Worksheets for Cumulative Conditions

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v

General Information

Analyst	
Agency or Company	Kimley-Horn and Associates
Date Performed	7/25/2008
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	O'Hara Avenue (Northbou
From/To	North of Central Boulevar
Jurisdiction	City of Brentwood
Analysis Year	Cumulative

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	198	Peak-Hour Factor, PHF	0.92
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearence, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	108
Speed, S (mi/h)	45.0
D (pc/mi/ln)	2.4
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

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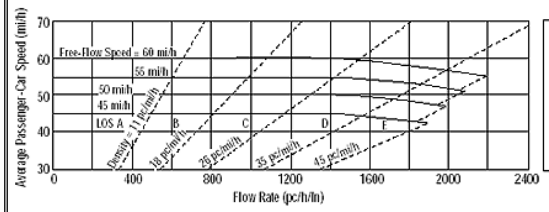
MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v

General Information

Analyst	
Agency or Company	Kimley-Horn and Associates
Date Performed	7/25/2008
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	O'Hara Avenue (Northbou
From/To	North of Central Boulevar
Jurisdiction	City of Brentwood
Analysis Year	Cumulative

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	579	Peak-Hour Factor, PHF	0.92
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearence, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)	
Flow Rate, v_p (pc/h/ln)	317
Speed, S (mi/h)	45.0
D (pc/mi/ln)	7.0
LOS	A

Design

Design (N)
Required Number of Lanes, N
Flow Rate, v_p (pc/h)
Max Service Flow Rate (pc/h/ln)
Design LOS

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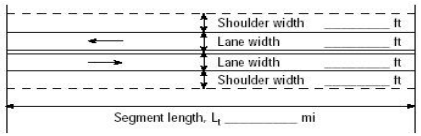
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*E. Cypress Rd to Delta Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Cumulative*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*288* veh/h
Directional split	*57 / 43*
Peak-hour factor, PHF	*0.92*
No-passing zone	*10*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*317*
v_p * highest directional split proportion[2] (pc/h)	*181*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
		Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Field Measured speed, S_{FM}	*mi/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Observed volume, V_f	*veh/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.6*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*42.6*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*314*
v_p * highest directional split proportion[2] (pc/h)	*179*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*24.1*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*6.2*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*30.3*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.10*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*117*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*432*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*2.7*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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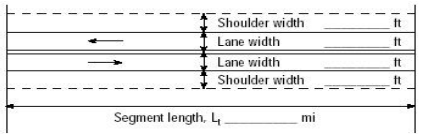
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Delta Rd to Sunset Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Cumulative*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*588* veh/h
Directional split	*59 / 41*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*642*
v_p * highest directional split proportion[2] (pc/h)	*379*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
		Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Field Measured speed, S_{FM}	*mi/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Observed volume, V_f	*veh/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*40.7*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*640*
v_p * highest directional split proportion[2] (pc/h)	*378*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*43.0*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*43.0*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.20*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*160*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*588*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*3.9*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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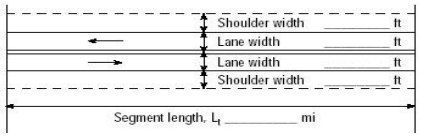
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Sunset Rd. to Chestnut Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Cumulative*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*794* veh/h
Directional split	*61 / 39*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*866*
v_p * highest directional split proportion[2] (pc/h)	*528*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*39.0*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*865*
v_p * highest directional split proportion[2] (pc/h)	*528*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*53.2*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*53.2*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c $v/c=V_p/3,200$	*0.27*
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*324*
Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*1191*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*8.3*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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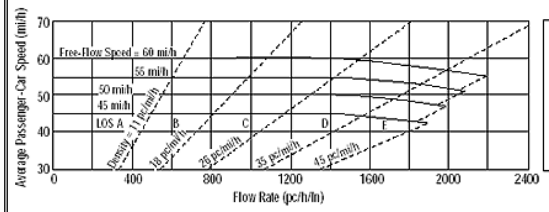
MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v

General Information

Analyst	
Agency or Company	Kimley-Horn and Associates
Date Performed	7/25/2008
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	O'Hara Avenue (Northbou
From/To	North of Central Boulevar
Jurisdiction	City of Brentwood
Analysis Year	Cumulative

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	543	Peak-Hour Factor, PHF	0.92
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearence, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	298
Speed, S (mi/h)	45.0
D (pc/mi/ln)	6.6
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

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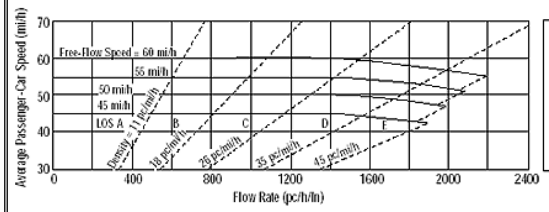
MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v

General Information

Analyst	
Agency or Company	Kimley-Horn and Associates
Date Performed	7/25/2008
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	O'Hara Avenue (Southbo
From/To	North of Central Boulevar
Jurisdiction	City of Brentwood
Analysis Year	Cumulative

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	359	Peak-Hour Factor, PHF	0.92
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearence, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	197
Speed, S (mi/h)	45.0
D (pc/mi/ln)	4.4
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

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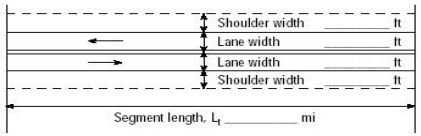
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Balfour Rd. and SR-4*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Cumulative*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*835* veh/h
Directional split	*55 / 45*
Peak-hour factor, PHF	*0.92*
No-passing zone	*25*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*911*
v_p * highest directional split proportion[2] (pc/h)	*501*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*40.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.4*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*32.3*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*909*
v_p * highest directional split proportion[2] (pc/h)	*500*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*55.0*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*8.2*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*63.2*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.28*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*227*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*835*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*7.0*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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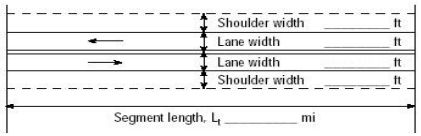
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Chestnut Rd. to Balfour Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Cumulative*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*862* veh/h
Directional split	*58 / 42*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	*941*
v_p * highest directional split proportion[2] (pc/h)	*546*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f * f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*40.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*33.4*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	*939*
v_p * highest directional split proportion[2] (pc/h)	*545*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*56.2*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*56.2*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.29*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}= 0.25L_t(V/PHF)$	*117*
Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*431*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}= VMT_{15}/ATS$	*3.5*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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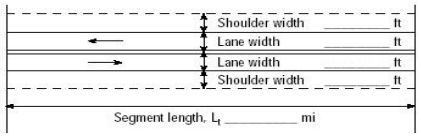
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*E. Cypress Rd to Delta Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Cumulative*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*467* veh/h
Directional split	*88 / 12*
Peak-hour factor, PHF	*0.92*
No-passing zone	*10*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*515*
v_p * highest directional split proportion[2] (pc/h)	*453*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
		Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Field Measured speed, S_{FM}	*mi/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Observed volume, V_f	*veh/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.8*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*40.9*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*509*
v_p * highest directional split proportion[2] (pc/h)	*448*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*36.1*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*9.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*45.1*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.16*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*190*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*701*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*4.6*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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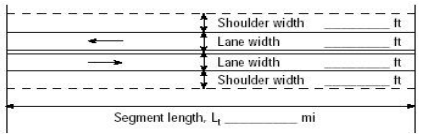
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Delta Rd to Sunset Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Cumulative*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*689* veh/h
Directional split	*63 / 37*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	*752*
v_p * highest directional split proportion[2] (pc/h)	*474*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f * f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*39.9*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	*750*
v_p * highest directional split proportion[2] (pc/h)	*473*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*48.3*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*48.3*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.23*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}= 0.25L_t(V/PHF)$	*187*
Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*689*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}= VMT_{15}/ATS$	*4.7*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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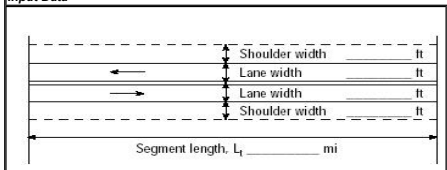
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Sunset Rd. to Chestnut Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Cumulative*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*828* veh/h
Directional split	*54 / 46*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*904*
v_p * highest directional split proportion[2] (pc/h)	*488*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*38.7*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*902*
v_p * highest directional split proportion[2] (pc/h)	*487*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*54.7*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*54.7*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.28*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*337*
Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*1242*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*8.7*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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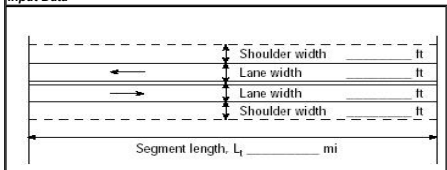
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Balfour Rd. and SR-4*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Cumulative*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*814* veh/h
Directional split	*58 / 42*
Peak-hour factor, PHF	*0.92*
No-passing zone	*25*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	*888*
v_p * highest directional split proportion[2] (pc/h)	*515*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f * f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*40.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.4*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*32.4*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	*887*
v_p * highest directional split proportion[2] (pc/h)	*514*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*54.1*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*7.9*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*62.1*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.28*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}= 0.25L_t(V/PHF)$	*221*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*814*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}= VMT_{15}/ATS$	*6.8*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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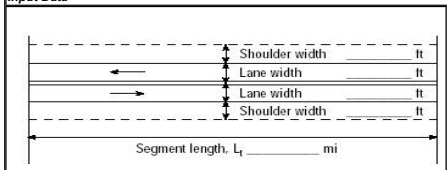
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Chestnut Rd. to Balfour Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Cumulative*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*828* veh/h
Directional split	*60 / 40*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*904*
v_p * highest directional split proportion[2] (pc/h)	*542*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*40.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*33.7*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*902*
v_p * highest directional split proportion[2] (pc/h)	*541*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*54.7*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*54.7*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.28*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*112*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*414*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*3.3*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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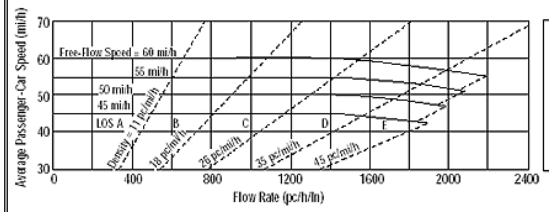
Appendix F:

Analysis Worksheets for Cumulative plus Proposed Project Conditions

MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v

General Information

Analyst	
Agency or Company	Kimley-Horn and Associates
Date Performed	7/25/2008
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	O'Hara Avenue (Northbou
From/To	North of Central Boulevar
Jurisdiction	City of Brentwood
Analysis Year	Cumulative + PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	195	Peak-Hour Factor, PHF	0.92
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearence, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)	
Flow Rate, v_p (pc/h/ln)	107
Speed, S (mi/h)	45.0
D (pc/mi/ln)	2.4
LOS	A

Design

Design (N)
Required Number of Lanes, N
Flow Rate, v_p (pc/h)
Max Service Flow Rate (pc/h/ln)
Design LOS

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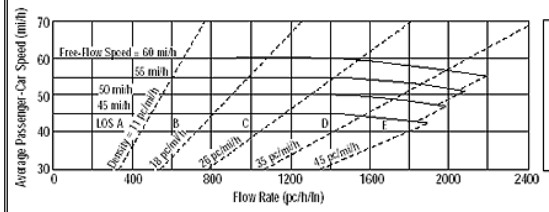
MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v

General Information

Analyst	
Agency or Company	Kimley-Horn and Associates
Date Performed	7/25/2008
Analysis Time Period	AM Peak

Site Information

Highway/Direction to Travel	O'Hara Avenue (Southbo
From/To	North of Central Boulevar
Jurisdiction	City of Brentwood
Analysis Year	Cumulative + PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	579	Peak-Hour Factor, PHF	0.92
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearence, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)	
Flow Rate, v_p (pc/h/ln)	317
Speed, S (mi/h)	45.0
D (pc/mi/ln)	7.0
LOS	A

Design

Design (N)
Required Number of Lanes, N
Flow Rate, v_p (pc/h)
Max Service Flow Rate (pc/h/ln)
Design LOS

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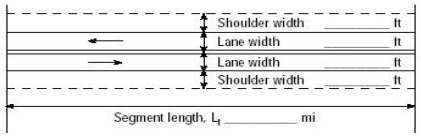
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Chestnut Rd. to Balfour Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Cumulative + Project*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*809* veh/h
Directional split	*58 / 42*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*883*
v_p * highest directional split proportion[2] (pc/h)	*512*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*40.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*33.8*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*881*
v_p * highest directional split proportion[2] (pc/h)	*511*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*53.9*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*53.9*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.28*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*110*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*405*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*3.2*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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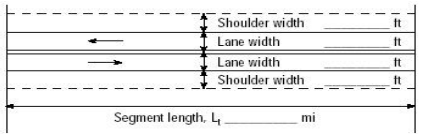
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*E. Cypress Rd to Delta Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Cumulative + Project*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*282* veh/h
Directional split	*59 / 41*
Peak-hour factor, PHF	*0.92*
No-passing zone	*10*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*311*
v_p * highest directional split proportion[2] (pc/h)	*183*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
		Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Field Measured speed, S_{FM}	*mi/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Observed volume, V_f	*veh/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.6*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*42.7*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*307*
v_p * highest directional split proportion[2] (pc/h)	*181*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*23.7*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*6.3*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*30.0*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*A*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.10*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*115*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*423*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*2.7*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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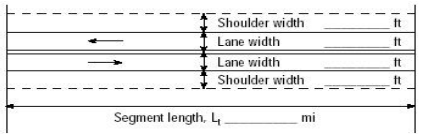
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Delta Rd to Sunset Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Cumulative + Project*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*573* veh/h
Directional split	*57 / 43*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	*625*
v_p * highest directional split proportion[2] (pc/h)	*356*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f * f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*40.9*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	*624*
v_p * highest directional split proportion[2] (pc/h)	*356*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*42.2*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*42.2*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.20*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}= 0.25L_t(V/PHF)$	*156*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*573*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}= VMT_{15}/ATS$	*3.8*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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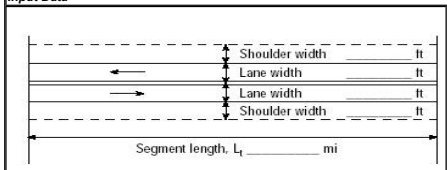
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Sunset Rd. to Chestnut Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Cumulative + Project*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*743* veh/h
Directional split	*58 / 42*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*811*
v_p * highest directional split proportion[2] (pc/h)	*470*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*39.4*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*809*
v_p * highest directional split proportion[2] (pc/h)	*469*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*50.9*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*50.9*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.25*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*303*
Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*1115*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*7.7*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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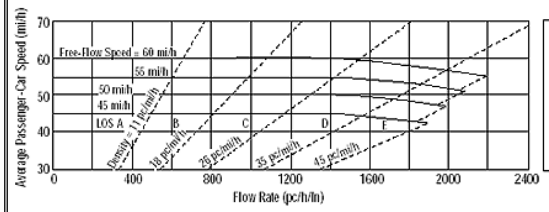
MULTILANE HIGHWAYS WORKSHEET(Direction 1)



Application	Input
Operational (LOS)	FFS, N, v_p
Design (N)	FFS, LOS, v_p
Design (v_p)	FFS, LOS, N
Planning (LOS)	FFS, N, AADT
Planning (N)	FFS, LOS, AADT
Planning (v_p)	FFS, LOS, N

General Information

Analyst	
Agency or Company	Kimley-Horn and Associates
Date Performed	7/25/2008
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	O'Hara Avenue (Northbou
From/To	North of Central Boulevar
Jurisdiction	City of Brentwood
Analysis Year	Cumulative + PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	511	Peak-Hour Factor, PHF	0.92
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearence, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)

Flow Rate, v_p (pc/h/ln)	280
Speed, S (mi/h)	45.0
D (pc/mi/ln)	6.2
LOS	A

Design

Design (N)

Required Number of Lanes, N	
Flow Rate, v_p (pc/h)	
Max Service Flow Rate (pc/h/ln)	
Design LOS	

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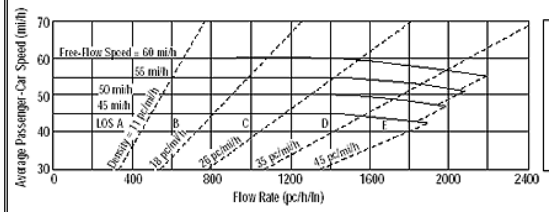
MULTILANE HIGHWAYS WORKSHEET(Direction 2)



Application	Input	C
Operational (LOS)	FFS, N, v_p	L
Design (N)	FFS, LOS, v_p	N
Design (v_p)	FFS, LOS, N	v
Planning (LOS)	FFS, N, AADT	L
Planning (N)	FFS, LOS, AADT	N
Planning (v_p)	FFS, LOS, N	v

General Information

Analyst	
Agency or Company	Kimley-Horn and Associates
Date Performed	7/25/2008
Analysis Time Period	PM Peak

Site Information

Highway/Direction to Travel	O'Hara Avenue (Southbo
From/To	North of Central Boulevar
Jurisdiction	City of Brentwood
Analysis Year	Cumulative + PP

Project Description

☑ Oper.(LOS) ☐ Des. (N) ☐ Plan. (vp)

Flow Inputs

Volume, V (veh/h)	359	Peak-Hour Factor, PHF	0.92
AADT(veh/h)		%Trucks and Buses, P_T	2
Peak-Hour Prop of AADT (veh/d)		%RVs, P_R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Grade Length (mi)	0.00
Driver Type Adjustment	1.00	Up/Down %	0.00
		Number of Lanes	2

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV}	0.990

Speed Inputs

Lane Width, LW (ft)	12.0
Total Lateral Clearence, LC (ft)	12.0
Access Points, A (A/mi)	0
Median Type, M	
FFS (measured)	45.0
Base Free-Flow Speed, BFFS	

Calc Speed Adj and FFS

f_{LW} (mi/h)	
f_{LC} (mi/h)	
f_A (mi/h)	
f_M (mi/h)	
FFS (mi/h)	45.0

Operations

Operational (LOS)	
Flow Rate, v_p (pc/h/ln)	197
Speed, S (mi/h)	45.0
D (pc/mi/ln)	4.4
LOS	A

Design

Design (N)
Required Number of Lanes, N
Flow Rate, v_p (pc/h)
Max Service Flow Rate (pc/h/ln)
Design LOS

HCS+™ Version 5.1 Generated: 7/28/2008 7:53 AM

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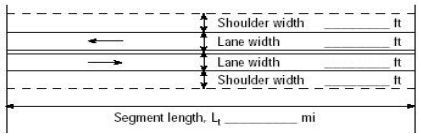
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Balfour Rd. and SR-4*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Cumulative + Project*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*804* veh/h
Directional split	*56 / 44*
Peak-hour factor, PHF	*0.92*
No-passing zone	*25*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*877*
v_p * highest directional split proportion[2] (pc/h)	*491*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*40.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.4*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*32.5*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*876*
v_p * highest directional split proportion[2] (pc/h)	*491*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*53.7*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*8.3*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*62.0*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.27*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*218*
Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*804*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*6.7*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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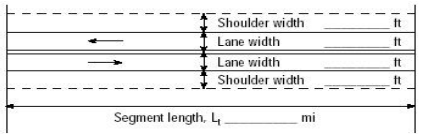
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Chestnut Rd. to Balfour Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Cumulative + Project*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*806* veh/h
Directional split	*58 / 42*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	*880*
v_p * highest directional split proportion[2] (pc/h)	*510*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
		Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Field Measured speed, S_{FM}	*mi/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Observed volume, V_f	*veh/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*40.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*33.9*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	*878*
v_p * highest directional split proportion[2] (pc/h)	*509*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*53.8*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*53.8*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.28*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}= 0.25L_t(V/PHF)$	*110*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*403*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}= VMT_{15}/ATS$	*3.2*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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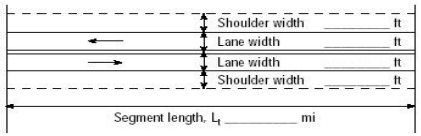
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*E. Cypress Rd to Delta Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Cumulative + Project*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*424* veh/h
Directional split	*86 / 14*
Peak-hour factor, PHF	*0.92*
No-passing zone	*10*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*467*
v_p * highest directional split proportion[2] (pc/h)	*402*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.8*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*41.2*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*462*
v_p * highest directional split proportion[2] (pc/h)	*397*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*33.4*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*9.3*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*42.7*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.15*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*173*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*636*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*4.2*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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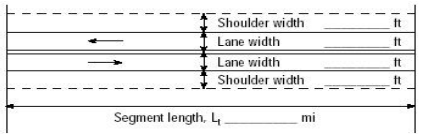
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Delta Rd to Sunset Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Cumulative + Project*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*620* veh/h
Directional split	*60 / 40*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	*677*
v_p * highest directional split proportion[2] (pc/h)	*406*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f * f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*40.4*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	*675*
v_p * highest directional split proportion[2] (pc/h)	*405*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*44.8*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*44.8*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.21*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}= 0.25L_t(V/PHF)$	*168*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*620*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}= VMT_{15}/ATS$	*4.2*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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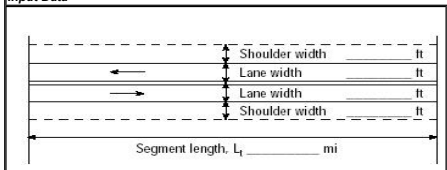
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Sunset Rd. to Chestnut Rd.*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*PM Peak*	Analysis Year	*Cumulative + Project*

Project Description:

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*776* veh/h
Directional split	*54 / 46*
Peak-hour factor, PHF	*0.92*
No-passing zone	*0*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*847*
v_p * highest directional split proportion[2] (pc/h)	*457*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*50.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f*f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*45.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*0.0*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*39.1*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF*f_G*f_{HV})$	*845*
v_p * highest directional split proportion[2] (pc/h)	*456*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*52.4*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*0.0*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*52.4*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*B*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.26*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	*316*
Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*1164*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	*8.1*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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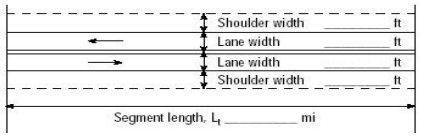
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst		Highway	*Sellers Avenue*
Agency or Company	*Kimley-Horn and Associates*	From/To	*Balfour Rd. and SR-4*
Date Performed	*6/17/2008*	Jurisdiction	*City of Brentwood*
Analysis Time Period	*AM Peak*	Analysis Year	*Cumulative + Project*

Project Description:

Input Data



Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	*828* veh/h
Directional split	*56 / 44*
Peak-hour factor, PHF	*0.92*
No-passing zone	*25*
% Trucks and Buses , P_T	*2* %
% Recreational vehicles, P_R	*0%*
Access points/ *mi*	*12*

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	*904*
v_p * highest directional split proportion[2] (pc/h)	*506*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	*45.0 mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*1.3 mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f * f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*3.0 mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	*40.7 mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	*1.4*
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	*32.3*

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	*1.00*
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	*1.0*
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	*902*
v_p * highest directional split proportion[2] (pc/h)	*505*
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	*54.7*
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	*8.1*
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	*62.8*

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	*C*
Volume to capacity ratio v/c v/c=V_p/ 3,200	*0.28*
Peak 15-min veh-miles of travel,VMT_{15} (veh- *mi*) $VMT_{15}= 0.25L_t(V/PHF)$	*225*

Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	*828*
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}= VMT_{15}/ATS$	*7.0*

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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Appendix G:

Analysis Worksheets for
Peak-Hour Signal Warrants

Scenario Report

Scenario:	Existing AM
Command:	Default Command
Volume:	Existing AM
Geometry:	Default Geometry
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 O'hara Avenue @ Southern Project Ro	No / No	??? / ???

Peak Hour Delay Signal Warrant Report

Intersection #1 O'hara Avenue @ Southern Project Roadway

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Lanes:	1	0	0	1	0		1	0	0	1	0		1	0	0	0	1		1	0	0	0	1	
Final Vol.:	0	289			0		0	384			0		0	0			0		0	0			0	
ApproachDel:	xxxxxx						xxxxxx						xxxxxx						xxxxxx					

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 O'hara Avenue @ Southern Project Roadway

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Lanes:	1	0	0	1	0		1	0	0	1	0		1	0	0	0	1		1	0	0	0	1	
Final Vol.:	0	289			0		0	384			0		0	0			0		0	0			0	

Major Street Volume: 673
Minor Approach Volume: 0
Minor Approach Volume Threshold: 544

Scenario Report

Scenario:	Existing PM
Command:	Default Command
Volume:	Existing PM
Geometry:	Default Geometry
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 O'hara Avenue @ Southern Project Ro	No / No	??? / ???

Peak Hour Delay Signal Warrant Report

Intersection #1 O'hara Avenue @ Southern Project Roadway

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Lanes:	1	0	0	1	0		1	0	0	1	0		1	0	0	0	1		1	0	0	0	1	
Final Vol.:	0	718			0		0	447			0		0	0			0		0	0			0	
ApproachDel:	xxxxxx						xxxxxx						xxxxxx						xxxxxx					

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 O'hara Avenue @ Southern Project Roadway

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Lanes:	1	0	0	1	0		1	0	0	1	0		1	0	0	0	1		1	0	0	0	1	
Final Vol.:	0	718			0		0	447			0		0	0			0		0	0			0	

Major Street Volume: 1165
Minor Approach Volume: 0
Minor Approach Volume Threshold: 308

Scenario Report

Scenario:	EPAP AM
Command:	Default Command
Volume:	EPAP AM
Geometry:	Default Geometry
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 O'hara Avenue @ Southern Project Ro	No / No	??? / ???

Peak Hour Delay Signal Warrant Report

Intersection #1 O'hara Avenue @ Southern Project Roadway

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Lanes:	1	0	0	1	0		1	0	0	1	0		1	0	0	0	1		1	0	0	0	1	
Final Vol.:	0	289		0			0	384		0			0	0		0			0	0		0		
ApproachDel:	xxxxxx						xxxxxx						xxxxxx						xxxxxx					

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 O'hara Avenue @ Southern Project Roadway

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Lanes:	1	0	0	1	0		1	0	0	1	0		1	0	0	0	1		1	0	0	0	1	
Final Vol.:	0	289		0			0	384		0			0	0		0			0	0		0		

Major Street Volume: 673
Minor Approach Volume: 0
Minor Approach Volume Threshold: 544

Scenario Report

Scenario:	EPAP PM
Command:	Default Command
Volume:	EPAP PM
Geometry:	Default Geometry
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 O'hara Avenue @ Southern Project Ro	No / No	??? / ???

Peak Hour Delay Signal Warrant Report

Intersection #1 O'hara Avenue @ Southern Project Roadway

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Lanes:	1	0	0	1	0		1	0	0	1	0		1	0	0	0	1		1	0	0	0	1	
Final Vol.:	0	718			0		0	447			0		0	0			0		0	0			0	
ApproachDel:	xxxxxx						xxxxxx						xxxxxx						xxxxxx					

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 O'hara Avenue @ Southern Project Roadway

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Lanes:	1	0	0	1	0		1	0	0	1	0		1	0	0	0	1		1	0	0	0	1	
Final Vol.:	0	718			0		0	447			0		0	0			0		0	0			0	

Major Street Volume: 1165
Minor Approach Volume: 0
Minor Approach Volume Threshold: 308

Scenario Report

Scenario:	EPAP + PP AM
Command:	Default Command
Volume:	EPAP + PP AM
Geometry:	Default Geometry
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 O'hara Avenue @ Southern Project Ro	Yes / No	??? / ???

Peak Hour Delay Signal Warrant Report

Intersection #1 O'hara Avenue @ Southern Project Roadway

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Lanes:	1	0	0	1	0		1	0	0	1	0		1	0	0	0	1		1	0	0	0	1	
Final Vol.:	130	289		130			173	384		173			83		0		110		110		0		83	
ApproachDel:	xxxxxx						xxxxxx						108.0						255.1					

Approach[eastbound][lanes=2][control=Stop]
Signal Warrant Rule #1: [vehicle-hours=5.8]
SUCCEED - Vehicle-hours >= 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=193]
SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1665]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=2][control=Stop]
Signal Warrant Rule #1: [vehicle-hours=13.7]
SUCCEED - Vehicle-hours >= 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=193]
SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1665]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 O'hara Avenue @ Southern Project Roadway

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Lanes:	1	0	0	1	0		1	0	0	1	0		1	0	0	0	1		1	0	0	0	1	
Final Vol.:	130	289		130			173	384		173			83		0		110		110		0		83	

Major Street Volume: 1279
Minor Approach Volume: 193
Minor Approach Volume Threshold: 268

Scenario Report

Scenario:	EPAP + PP PM
Command:	Default Command
Volume:	EPAP + PP PM
Geometry:	Default Geometry
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 O'hara Avenue @ Southern Project Ro	Yes / Yes	??? / ???

Peak Hour Delay Signal Warrant Report

Intersection #1 O'hara Avenue @ Southern Project Roadway

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	1	0	0	1 0	1	0	0	1 0	1	0	0	0 1	1	0	0	0 1
Final Vol.:	135	718		135	84	447		84	200		0	125	125		0	200
ApproachDel:	xxxxxx				xxxxxx				2116.4				428.6			

Approach[eastbound][lanes=2][control=Stop]
Signal Warrant Rule #1: [vehicle-hours=191.1]
SUCCEED - Vehicle-hours >= 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=325]
SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=2253]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=2][control=Stop]
Signal Warrant Rule #1: [vehicle-hours=38.7]
SUCCEED - Vehicle-hours >= 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=325]
SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=2253]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 O'hara Avenue @ Southern Project Roadway

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	1	0	0	1 0	1	0	0	1 0	1	0	0	0 1	1	0	0	0 1
Final Vol.:	135	718		135	84	447		84	200		0	125	125		0	200

Major Street Volume: 1603
Minor Approach Volume: 325
Minor Approach Volume Threshold: 171

Scenario Report

Scenario:	Cumulative AM
Command:	Default Command
Volume:	Cumulative AM
Geometry:	Default Geometry
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 O'hara Avenue @ Southern Project Ro	No / No	??? / ???

Peak Hour Delay Signal Warrant Report

Intersection #1 O'hara Avenue @ Southern Project Roadway

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	0	0	1	1	0	0	0	1
Final Vol.:	0	198			0	0	579			0	0	0			0	0	0			0
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					xxxxxx				

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 O'hara Avenue @ Southern Project Roadway

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	0	0	1	1	0	0	0	1
Final Vol.:	0	198			0	0	579			0	0	0			0	0	0			0

Major Street Volume: 777
Minor Approach Volume: 0
Minor Approach Volume Threshold: 483

Scenario Report

Scenario:	Cumulative PM
Command:	Default Command
Volume:	Cumulative PM
Geometry:	Default Geometry
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 O'hara Avenue @ Southern Project Ro	No / No	??? / ???

Peak Hour Delay Signal Warrant Report

Intersection #1 O'hara Avenue @ Southern Project Roadway

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	1	0	1	1 0	1	0	1	1 0	1	0	0	0 1	1	0	0	0 1
Final Vol.:	0	543		0	0	359		0	0	0		0	0	0		0
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				xxxxxx			

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 O'hara Avenue @ Southern Project Roadway

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	1	0	1	1 0	1	0	1	1 0	1	0	0	0 1	1	0	0	0 1
Final Vol.:	0	543		0	0	359		0	0	0		0	0	0		0

Major Street Volume: 902
Minor Approach Volume: 0
Minor Approach Volume Threshold: 418

Scenario Report

Scenario:	Cumulative + PP AM
Command:	Default Command
Volume:	Cumulative + PP AM
Geometry:	Default Geometry
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 O'hara Avenue @ Southern Project Ro	Yes / No	??? / ???

Peak Hour Delay Signal Warrant Report

Intersection #1 O'hara Avenue @ Southern Project Roadway

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	1	0	1	1 0	1	0	1	1 0	1	0	0	0 1	1	0	0	0 1
Final Vol.:	76	195			76	227	579		227	49	0		144	144	0	
ApproachDel:	xxxxxx				xxxxxx				37.1				246.9			

Approach[eastbound][lanes=2][control=Stop]
Signal Warrant Rule #1: [vehicle-hours=2.0]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=193]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1766]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.

Approach[westbound][lanes=2][control=Stop]
Signal Warrant Rule #1: [vehicle-hours=13.2]
   SUCCEED - Vehicle-hours >= 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=193]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1766]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 O'hara Avenue @ Southern Project Roadway

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	1	0	1	1 0	1	0	1	1 0	1	0	0	0 1	1	0	0	0 1
Final Vol.:	76	195			76	227	579		227	49	0		144	144	0	

Major Street Volume: 1380
Minor Approach Volume: 193
Minor Approach Volume Threshold: 236

Scenario Report

Scenario:	Cumulative + PP PM
Command:	Default Command
Volume:	Cumulative + PP PM
Geometry:	Default Geometry
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 O'hara Avenue @ Southern Project Ro	Yes / Yes	??? / ???

Peak Hour Delay Signal Warrant Report

Intersection #1 O'hara Avenue @ Southern Project Roadway

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	1	0	1	1 0	1	0	1	1 0	1	0	0	0 1	1	0	0	0 1
Final Vol.:	128	511		128	90	359		90	191	0		134	134	0		191
ApproachDel:	xxxxxx				xxxxxx				286.1				118.7			

Approach[eastbound][lanes=2][control=Stop]
Signal Warrant Rule #1: [vehicle-hours=25.8]
   SUCCEED - Vehicle-hours >= 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=325]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1956]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.

Approach[westbound][lanes=2][control=Stop]
Signal Warrant Rule #1: [vehicle-hours=10.7]
   SUCCEED - Vehicle-hours >= 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=325]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1956]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 O'hara Avenue @ Southern Project Roadway

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	1	0	1	1 0	1	0	1	1 0	1	0	0	0 1	1	0	0	0 1
Final Vol.:	128	511		128	90	359		90	191	0		134	134	0		191

Major Street Volume: 1306
Minor Approach Volume: 325
Minor Approach Volume Threshold: 259

APPENDIX F

Kimley-Horn
and Associates, Inc.

August 11, 2011

Suite 200
11919 Foundation Place
Gold River, California
95670

Mr. Nick Pappani
Raney Planning & Management, Inc.
1501 Sports Drive
Sacramento, California 95834

Re: Trip Generation Comparison
Brentwood Boulevard Specific Plan Update
Brentwood, California

Dear Mr. Pappani:

As requested, we have prepared a trip generation comparison for the above referenced project. The purpose of this effort is to quantify the change in project trips resulting from the new, 2011 land use plan. The baseline for comparison is the previously completed study from 2008[1]. Table 1 provides a summary of the baseline (2008) and new (2011) land uses for the proposed project. As depicted in Table 1, the 2011 project generally reduces the overall project development size, while only increasing the number of single-family units (+61) and commercial (+308.2 ksf) land uses

Table 1 – Project Land Use Comparison (2008, 2008-Scortino Ranch, and 2011)

Land Use (ITE Code)	Size (2008)		Size (2008 - Scortino)		Delta		Size (2011)		Delta (2011 vs Full 2008)		Delta (2011 vs 2008-Scortino)	
General Light Industrial (110)	539.7	ksf	539.7	ksf	0.0	ksf	333.8	ksf	(205.9)	ksf	(205.9)	ksf
Single-Family Detached Housing (210)	421	units	421	units	0	units	482	units	61	units	61	units
Apartment (220)	1825	units	1825	units	0	units	1510	units	(315)	units	(315)	units
City Park (411)	8.1	acres	8.1	acres	0.0	acres	0.0	acres	(8.1)	acres	(8.1)	acres
General Office Building (710)	1940.7	ksf	1799.9	ksf	(140.8)	ksf	417.3	ksf	(1523.4)	ksf	(1382.6)	ksf
Shopping Center (820)	381.4	ksf	271.4	ksf	(110.0)	ksf	689.6	ksf	308.2	ksf	418.2	ksf

Furthermore, the baseline (2008) project was confirmed to have included the Scortino Ranch project site within the proposed project boundary. As such, the 2008 project included approximately 110 ksf of commercial and 141 ksf of office land uses. Table 1 also includes data from which it is possible to compare the 2011 project against the 2008 project without the Scortino Ranch project area (2008-Scortino).

Table 2 through Table 4 provide detailed trip generation characteristics for each of the project conditions (2008, 2008-Scortino, and 2011).

[1] *Traffic Impact Analysis, Brentwood Boulevard Specific Plan*, Kimley-Horn and Associates, Inc., April 14, 2008

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FAX 916 608 0885

Table 2 – Proposed Project Trip Generation (Full 2008)

Land Use (ITE Code)	Size	Daily Trips	AM Peak-Hour					PM Peak-Hour				
			Total Trips	IN		OUT		Total Trips	IN		OUT	
				%	Trips	%	Trips		%	Trips	%	Trips
General Light Industrial (110)	539.7 ksf	3,930	548	88%	482	12%	66	608	12%	73	88%	535
Single-Family Detached Housing (210)	421 units	3,902	304	25%	76	75%	228	391	63%	246	37%	145
Apartment (220)	1825 units	11,119	898	20%	180	80%	718	1,021	65%	664	35%	357
City Park (411)	8.1 acres	13	0	0%	0	100%	0	0	0%	0	100%	0
General Office Building (710)	1940.7 ksf	13,089	2,012	88%	1,770	12%	241	2,252	17%	383	83%	1,869
Shopping Center (820)	381.4 ksf	16,212	349	61%	213	39%	136	1,515	48%	727	52%	788
Subtotal New Trips (Full 2008):		**48,264**	**4,111**		**2,721**		**1,390**	**5,788**		**2,093**		**3,695**

Source: *Trip Generation, 7th Edition*, ITE.

Table 3 – Proposed Project Trip Generation (2008-Scortino Ranch)

Land Use (ITE Code)	Size	Daily Trips	AM Peak-Hour					PM Peak-Hour				
			Total Trips	IN		OUT		Total Trips	IN		OUT	
				%	Trips	%	Trips		%	Trips	%	Trips
General Light Industrial (110)	539.7 ksf	3,930	548	88%	482	12%	66	608	12%	73	88%	535
Single-Family Detached Housing (210)	421 units	3,902	304	25%	76	75%	228	391	63%	246	37%	145
Apartment (220)	1825 units	11,119	898	20%	180	80%	718	1,021	65%	664	35%	357
City Park (411)	8.1 acres	13	0	0%	0	100%	0	0	0%	0	100%	0
General Office Building (710)	1799.9 ksf	12,351	1,894	88%	1,667	12%	227	2,095	17%	356	83%	1,739
Shopping Center (820)	271.4 ksf	12,996	285	61%	174	39%	111	1,210	48%	581	52%	629
Subtotal New Trips (2008-Scortino):		**44,310**	**3,928**		**2,578**		**1,351**	**5,325**		**1,920**		**3,405**

Source: *Trip Generation, 7th Edition*, ITE

Note: Shaded cells identify Scortino Ranch land uses and changes to the 2008 project.

Table 4 – Proposed Project Trip Generation (2011)

Land Use (ITE Code)	Size	Daily Trips	AM Peak-Hour					PM Peak-Hour				
			Total Trips	IN		OUT		Total Trips	IN		OUT	
				%	Trips	%	Trips		%	Trips	%	Trips
General Light Industrial (110)	333.8 ksf	2,392	305	88%	268	12%	37	314	12%	38	88%	276
Single-Family Detached Housing (210)	482 units	4,419	347	25%	87	75%	260	441	63%	278	37%	163
Apartment (220)	1510 units	9,225	744	20%	149	80%	595	848	65%	551	35%	297
City Park (411)	0.0 acres	0	0	0%	0	100%	0	0	0%	0	100%	0
General Office Building (710)	417.3 ksf	4,008	588	88%	518	12%	71	546	17%	93	83%	453
Shopping Center (820)	689.6 ksf	23,825	499	61%	304	39%	194	2,239	48%	1,075	52%	1,164
Subtotal New Trips (2011):		**43,869**	**2,482**		**1,325**		**1,157**	**4,389**		**2,035**		**2,354**
Subtotal New Trips from Table 2 (Full 2008):		48,264	4,111					5,788				
Delta (2011 vs. Full 2008):		*(4,395)*	*(1,629)*					*(1,399)*				
Subtotal New Trips from Table 3 (2008-Scortino):		44,310	3,928					5,325				
Delta (2011 vs. 2008-Scortino):		*(441)*	*(1,447)*					*(937)*				

Source: *Trip Generation, 7th Edition*, ITE.

As summarized in Table 4, the new (2011) project is anticipated to generate fewer trips (Daily, AM, and PM) when compared to the 2008 project, both with and without the Scortino Ranch project.

The new (2011) project is anticipated to generate approximately 10 percent fewer daily trips, approximately 40 percent fewer AM peak-hour, and approximately 25 percent fewer PM peak-hour trips than the baseline (2008) project. When compared to the baseline project without Scortino Ranch, the proposed project is anticipated to generate approximately the same daily trips, approximately 35 percent fewer AM peak-hour trips, and approximately 15 percent fewer PM peak-hour trips

Subsequent discussions with the City will determine if the magnitude of the trip reduction associated with the new (2011) project warrants revisions to, or an update of the previously completed traffic study for the proposed project[1].

Please contact me at (916) 878-7142 if you have any questions or require additional information.

Very truly yours,

KIMLEY-HORN AND ASSOCIATES, INC.

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