

**Appendix 2**  
**Additions and Corrections to the 2000 Avenue  
of the Stars Traffic Study Report**

# Crain & Associates

## Of Southern California

2007 Sawtelle Boulevard, Suite 4  
Los Angeles, California 90025  
Telephone (310) 473-6508  
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HAND DELIVERED

November 5, 2002

Mr. Travis Cullen  
Envicom Corporation  
28328 Agoura Road  
Agoura Hills, California 91301

RE: Additions and Corrections to 2000 AOS Traffic Study Report

Dear Travis

Enclosed are the pages and sheets containing the additions and corrections that have been made to the 2000 AOS traffic study report, including the Appendices.

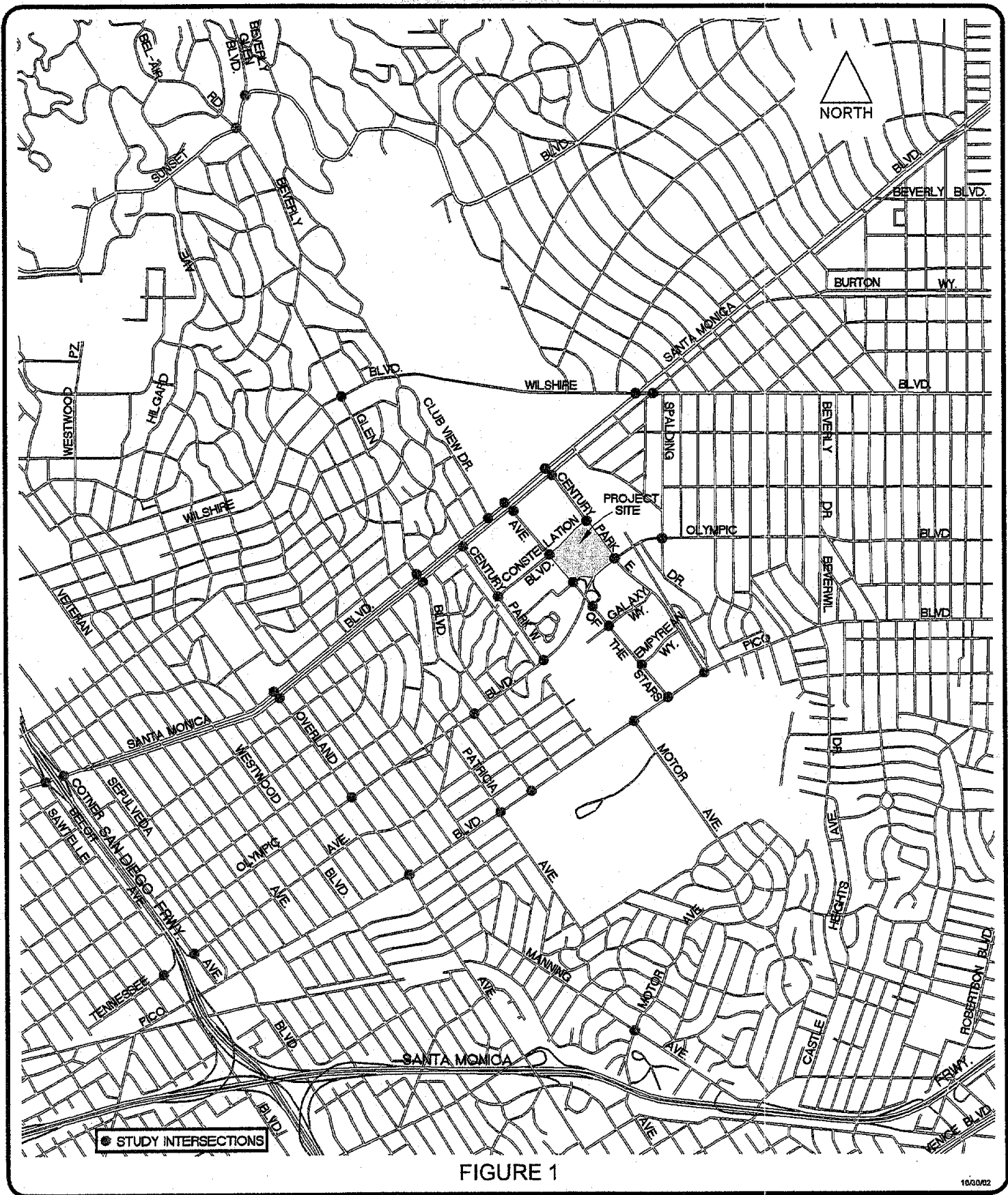
Please call if you have any questions.

Sincerely,



Roy Nakamura  
Senior Transportation Engineer

RN:n  
C12665  
enclosures



10/30/02

FN: ABC ENTERTAINMENT CTR-REVISED SITE VIC

**PROJECT SITE VICINITY MAP  
(REVISED)**



**CRAIN & ASSOCIATES**

2007 Sawtelle Boulevard  
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Transportation Planning - Traffic Engineering

Pico Boulevard, a Major Highway, provides up to three lanes both eastbound and westbound. Left-turn channelization is available at most intersections along Pico Boulevard.

Wilshire Boulevard, farther to the north, is a Major Highway and also a significant public transportation route. Wilshire Boulevard has three to four lanes per direction and left-turn channelization.

Constellation Boulevard is a Secondary Highway and limited to Century City, extending from Century Park West to Century Park East. Constellation Boulevard forms the northern boundary of the site. It has three lanes in each direction, along with left-turn channelization.

North-south streets providing immediate or nearby access to the project site include Overland Avenue, Beverly Glen Boulevard, Century Park West, Avenue of the Stars, Century Park East and Motor Avenue. Their descriptions are as follows:

Overland Avenue is a Major Highway from Pico Boulevard southerly and provides a direct connection to the Santa Monica Freeway. It has two lanes per direction, plus left-turn channelization along this route. North of Pico Boulevard, Overland Avenue becomes a two-lane local street, terminating at Santa Monica Boulevard.

Beverly Glen Boulevard, a Major Highway, extends from the San Fernando Valley, across the Santa Monica Mountains, and terminates at Pico Boulevard. It provides two lanes in each direction and left-turn channelization in the West Los Angeles area. At Sunset Boulevard, Beverly Glen Boulevard has jogged intersections.

Century Park West is a Secondary Highway in Century City. It runs between Santa Monica Boulevard (south roadway) and Olympic Boulevard. It provides two to four lanes, including turn lanes, in each direction.

Avenue of the Stars, a divided Major Highway in Century City, forms the western boundary of the site. It extends from Santa Monica Boulevard to Pico Boulevard and generally has three lanes per direction, plus left-turn channelization. Avenue of the Stars is grade-separated over Olympic Boulevard.

Century Park East, a Secondary Highway, also extends from Santa Monica Boulevard to Pico Boulevard in Century City. Century Park East runs along the east side of the block containing the project site. It provides three lanes in each direction, as well as left-turn channelization.

Motor Avenue is designated a Collector Street from Pico Boulevard to Manning Avenue, and a Secondary Highway south of Manning Avenue. Between Pico Boulevard and Monte Mar Drive, this variable width roadway has two lanes in the northbound direction, and in the southbound direction, one lane for most of this distance; thereafter it has one lane in each direction to Manning Avenue.

Other streets or their intersections expected to be involved with project access include the following:

- Sunset Boulevard: East-west Modified Major Highway.
- Galaxy Way: East-west Collector Street in south Century City.
- Empyrean Way: East-west Collector Street in south Century City.
- Manning Avenue: East-west Collector Street west of Motor Avenue and Secondary Highway to the east.
- Sawtelle Boulevard: North-south Collector Street north of Olympic Boulevard and Secondary Highway to the south.
- Beloit Avenue: North-south Collector Street.
- Cotner Avenue: North-south Collector Street.
- Patricia Avenue: North-south local street north of Pico Boulevard and Collector Street to the south.
- Spalding Drive: North-south local street in City of Beverly Hills.

### Constellation Place

This project, now under construction, has funded the installation of the state-of-the-art Adaptive Traffic Control System (ATCS) for an area generally bounded by the Santa Monica (I-10) Freeway, Sawtelle Boulevard, Wilshire Boulevard, Century Park East, Olympic Boulevard and La Cienega Boulevard (at approximately 73 locations). ATCS has been determined by LADOT to increase intersection capacity by at least three percent (which in combination with an Automated Traffic Surveillance and Control (ATSAC) intersection provides a cumulative 10 percent minimum increase in intersection capacity). This project is also responsible for installing the following intersection improvements:

- Constellation Blvd. & Ave. of the Stars – A westbound right-turn lane;
- Olympic Blvd. & Century Park West – An additional (second) eastbound left-turn lane; and

In addition, Constellation Place will be constructing a transit center facility on the south side of Constellation Boulevard between Century Park West and Garden Lane, a private street.

### Fox Studios

The Fox Studios expansion project is expected to implement the following additional intersection improvements by 2005:

- Constellation Blvd. & Ave. of the Stars – A shared northbound through/right-turn lane;
- Galaxy Wy. & Ave. of the Stars – An additional (second) eastbound left-turn lane and measures to prohibit east-west through traffic across Avenue of the Stars;
- Pico Blvd. & Century Park East – A westbound right-turn lane;

**Table 9 (Revised)**  
**Intersection Critical Movement Analysis (CMA) and Level of Service (LOS) Summary**  
**Existing (2001) and Future (2005) Conditions**

No.	Intersection	Peak Hour	Existing		Without Project		With Project		With Project + Mitigation			
			CMA	LOS	CMA	LOS	CMA	LOS	Impact	CMA	LOS	Impact
1.	Sunset Boulevard & Beverly Glen Boulevard (E.)	AM PM	0.894 1.023	D F	1.038 1.225	F F	1.037 1.216	F F	-0.001 -0.009	1.036 1.215	F F	-0.002 -0.010
2.	Sunset Boulevard & Beverly Glen Boulevard (W.)	AM PM	1.189 1.062	F F	1.385 1.264	F F	1.388 1.251	F F	0.003 -0.013	1.385 1.249	F F	0.000 -0.015
3.	Wilshire Boulevard & Beverly Glen Boulevard	AM PM	0.868 0.884	D D	1.030 1.140	F F	1.030 1.133	F F	0.000 -0.007	1.029 1.133	F F	-0.001 -0.007
4.	Santa Monica Boulevard (N.) & Overland Avenue	AM PM	0.861 0.814	D D	1.076 1.082	F F	1.080 1.054	F F	0.004 -0.028	1.078 1.054	F F	0.002 -0.028
5.	Santa Monica Boulevard (S.) & Overland Avenue	AM PM	0.478 0.428	A A	0.358 0.465	A A	0.358 0.465	A A	0.000 0.000	0.358 0.465	A A	0.000 0.000
6.	Santa Monica Boulevard (N.) & Beverly Glen Boulevard	AM PM	0.849 0.823	D D	1.099 1.139	F F	1.107 1.130	F F	0.008 -0.009	1.104 1.128	F F	0.005 -0.011
7.	Santa Monica Boulevard (S.) & Beverly Glen Boulevard	AM PM	0.849 0.884	D D	0.464 0.575	A A	0.464 0.575	A A	0.000 0.000	0.464 0.575	A A	0.000 0.000
8.	Santa Monica Boulevard (S.) & Century Park West	AM PM	0.325 0.397	A A	1.006 0.984	F E	1.007 0.969	F E	0.001 -0.015	1.005 0.966	F E	-0.001 -0.018
9.	Santa Monica Boulevard (N.) & Club View Drive	AM PM	0.613 0.707	B C	0.213 0.408	A A	0.213 0.408	A A	0.000 0.000	0.213 0.408	A A	0.000 0.000
10.	Santa Monica Boulevard (N.) & Avenue Of The Stairs	AM PM	0.825 0.755	D C	1.191 0.967	F E	1.205 0.956	F E	0.014 -0.011	1.199 0.955	F E	0.008 -0.012
11.	Santa Monica Boulevard (S.) & Avenue Of The Stairs	AM PM	0.506 0.544	A A	NA NA		NA NA			NA NA		
12.	Santa Monica Boulevard (N.) & Century Park East	AM PM	0.759 0.666	C B	0.950 0.846	E D	0.955 0.805	E D	0.005 -0.041	0.953 0.804	E D	0.003 -0.042
13.	Santa Monica Boulevard (S.) & Century Park East	AM PM	0.771 0.648	C B	NA NA		NA NA			NA NA		
14.	Santa Monica Boulevard (N.) & Wilshire Boulevard	AM PM	1.107 0.953	F E	1.319 1.205	F F	1.321 1.199	F F	0.002 -0.006	1.321 1.198	F F	0.002 -0.007

**Table 9 (Revised) (cont.)  
Intersection Critical Movement Analysis (CMA) and Level of Service (LOS) Summary  
Existing (2001) and Future (2005) Conditions**

No.	Intersection	Peak Hour	Existing		Without Project		With Project		With Project + Mitigation		
			CMA	LOS	CMA	LOS	CMA	LOS	CMA	LOS	Impact
15.	Santa Monica Boulevard (S.) & Wilshire Boulevard	AM PM	1.195 1.011	F F	1.368 1.211	F F	1.368 1.208	F F	1.368 1.208	F F	0.000 -0.003
16.	Constellation Boulevard & Century Park West	AM PM	0.265 0.260	A A	0.483 0.411	A A	0.499 0.381	A A	0.493 0.380	A A	0.010 -0.031
17.	Constellation Boulevard & Avenue Of The Stars	AM PM	0.646 0.537	B A	0.696 0.780	B C	0.710 0.773	C C	0.701 0.773	C C	0.005 -0.007
18.	Constellation Boulevard & Century Park East	AM PM	0.381 0.590	A A	0.514 0.664	A B	0.513 0.628	A B	0.511 0.626	A B	-0.003 -0.038
19.	Olympic Boulevard & Overland Avenue	AM PM	1.176 1.141	F F	1.484 1.414	F F	1.484 1.386	F F	1.481 1.384	F F	-0.003 -0.030
20.	Olympic Boulevard & Beverly Glen Boulevard	AM PM	0.820 0.851	D D	0.981 0.989	E E	0.984 0.982	E E	0.983 0.981	E E	0.002 -0.008
21.	Olympic Boulevard & Century Park West	AM PM	0.917 0.966	E E	0.941 1.195	E F	0.940 1.186	E F	0.938 1.184	E F	-0.003 -0.011
22.	Olympic Boulevard (WB) & Avenue Of The Stars	AM PM	0.461 0.415	A A	0.567 0.473	A A	0.575 0.467	A A	0.571 0.467	A A	0.004 -0.006
23.	Olympic Boulevard (EB) & Avenue Of The Stars	AM PM	0.379 0.348	A A	0.492 0.443	A A	0.501 0.446	A A	0.498 0.446	A A	0.006 0.003
24.	Olympic Boulevard & Century Park East	AM PM	0.749 0.792	C C	0.867 0.909	D E	0.862 0.901	D E	0.861 0.899	D D	-0.006 -0.010
25.	Olympic Boulevard & Spalding Drive	AM PM	0.983 0.865	E D	1.134 0.993	F E	1.137 0.971	F E	1.135 0.971	F E	0.001 -0.022
26.	Galaxy Way & Avenue Of The Stars	AM PM	0.381 0.427	A A	0.372 0.574	A A	0.373 0.574	A A	0.373 0.574	A A	0.001 0.000
27.	Empyrean Way & Avenue Of The Stars	AM PM	0.477 0.419	A A	0.636 0.541	B A	0.645 0.555	B A	0.643 0.555	B A	0.007 0.014
28.	Pico Boulevard & Overland Avenue	AM PM	0.894 1.234	D F	0.944 1.371	E F	0.942 1.347	E F	0.941 1.346	E F	-0.003 -0.025



**Table 9 (Revised) (cont.)  
Intersection Critical Movement Analysis (CMA) and Level of Service (LOS) Summary  
Existing (2001) and Future (2005) Conditions**

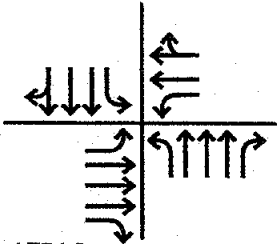
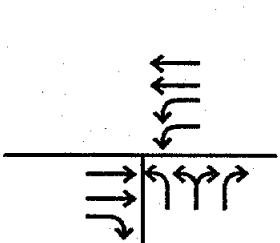
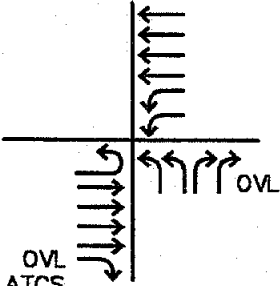
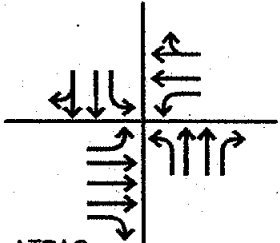
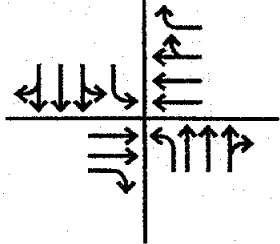
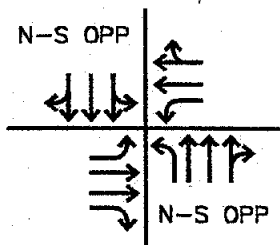
No.	Intersection	Peak Hour	Existing		Without Project		With Project		With Project + Mitigation		
			CMA	LOS	CMA	LOS	CMA	LOS	CMA	LOS	Impact
29.	Pico Boulevard & Patricia Avenue	AM PM	0.729 0.712	C C	0.736 0.706	C C	0.729 0.675	C B	0.729 0.674	C B	-0.007 -0.032
30.	Pico Boulevard & Beverly Glen Boulevard	AM PM	0.779 0.635	C B	0.841 0.661	D B	0.835 0.640	D B	0.834 0.638	D B	-0.007 -0.023
31.	Pico Boulevard & Motor Avenue	AM PM	0.934 0.963	E E	0.943 1.048	E F	0.944 1.025	E F	0.941 1.024	E F	-0.002 -0.024
32.	Pico Boulevard & Avenue Of The Stars	AM PM	0.837 0.967	D E	0.802 0.860	D D	0.799 0.823	C D	0.796 0.821	C D	-0.006 -0.039
33.	Pico Boulevard & Century Park East	AM PM	0.732 0.616	C B	0.715 0.668	C B	0.722 0.656	C B	0.720 0.654	C B	0.005 -0.014
34.	Manning Avenue & Motor Avenue	AM PM	0.827 0.843	D D	1.003 0.962	F E	1.001 0.960	F E	0.998 0.959	E E	-0.005 -0.003
35.	Santa Monica Boulevard & I-405 SB On/Off Ramps-Beloit Avenue	AM PM	0.768 0.658	C B	0.844 0.791	D C	0.842 0.777	D C	0.842 0.776	D C	-0.002 -0.015
36.	Santa Monica Boulevard & I-405 NB On/Off Ramps-Cotner Avenue	AM PM	0.830 0.814	D D	0.885 0.889	D D	0.885 0.873	D D	0.885 0.871	D D	0.000 -0.018
37.	I-405 SB Off Ramp/Tennessee Avenue & Sawtelle Boulevard	AM PM	0.537 0.803	A D	0.584 0.831	A D	0.585 0.831	A D	0.585 0.831	A D	0.001 0.000
38.	I-405 NB On Ramp/Tennessee Avenue & Cotner Avenue	AM PM	0.932 1.072	E F	0.863 0.844	D D	0.861 0.842	D D	0.861 0.839	D D	-0.002 -0.005

\* Indicates significant project impact.

N/A: Intersection does not exist in future due to Santa Monica Boulevard Transit Parkway project.

either the AM or PM peak-hour trips total in Table 10 for the project has been exceeded, then the Applicant shall have one year to achieve compliance. If the annual report subsequent to the noncompliance annual report shows that the project is still not in compliance, then LADOT may require additional operating improvements and/or modifications to the TDM measures. These may include requiring the Applicant to buy an annual bus pass for each excess trip occurring in the peak hour with the most excess trips up to a maximum of 47 annual bus passes, or requiring an increase in the number of reserved car and van pool preferential parking spaces in order to further encourage employee bus transit usage and ridesharing. As appropriate, the Applicant may submit additional reports or supplemental information for consideration that demonstrate measures which may have been additionally required by the City for noncompliance reasons can be rescinded. When the last five annual reports demonstrate continuous compliance with the peak-hour trip thresholds, the project shall be deemed to have satisfied the TDM mitigation measure requirement and no further action by the Applicant regarding this requirement will be necessary.

Based on the above project TDM program and accompanying analysis, no further traffic mitigation is necessary for the project.

INTERSECTION	2001 EXISTING	2005 WITHOUT PROJECT	2005 WITH PROJECT
11. Santa Monica Blvd.(S) & Avenue of the Stars	 30, ATSAC	N/A	N/A
12. Santa Monica Blvd.(N) & Century Park East	 30, ATSAC	 30, ATCS	SAME AS WITHOUT PROJECT
13. Santa Monica Blvd.(S) & Century Park East	 30, ATSAC	N/A	N/A
14. Santa Monica Blvd.(N) & Wilshire Blvd.	 30	SAME AS EXISTING	SAME AS EXISTING
15. Santa Monica Blvd.(S) & Wilshire Blvd.	 30	SAME AS EXISTING	SAME AS EXISTING

**LEGEND:**

ST : STOP CONTROLLED  
 OPP : OPPOSED PHASING  
 OVL : OVERLAP

ATSAC : AUTOMATED TRAFFIC  
 SURVEILLANCE AND CONTROL  
 ATCS : ADAPTIVE TRAFFIC CONTROL SYSTEM

\* FUNCTIONS AS A  
 SEPARATE LANE,  
 ALTHOUGH NOT STRIPED

**FIGURE B-1**

10/00/02

FN: ABC ENTERTAINMENT CTR-REVISED TURN MOVEMENTS-3

**STUDY INTERSECTION  
 GEOMETRIC AND TRAFFIC CONTROL CONDITIONS  
 (REVISED)**



**CRAIN & ASSOCIATES**

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INTERSECTION	2001 EXISTING	2005 WITHOUT PROJECT	2005 WITH PROJECT
16. Constellation Blvd. & Century Park West	<p>2<math>\phi</math>, ATSAC</p>	<p>3<math>\phi</math>, ATCS</p>	SAME AS WITHOUT PROJECT
17. Constellation Blvd. & Avenue of the Stars	<p>3<math>\phi</math>, ATSAC</p>	<p>4<math>\phi</math>, ATCS</p>	SAME AS WITHOUT PROJECT
18. Constellation Blvd. & Century Park East	<p>3<math>\phi</math>, ATSAC</p>	<p>3<math>\phi</math>, ATCS</p>	SAME AS WITHOUT PROJECT
19. Olympic Blvd. & Overland Ave.	<p>3<math>\phi</math>, ATSAC</p>	<p>3<math>\phi</math>, ATCS</p>	SAME AS WITHOUT PROJECT
20. Olympic Blvd. & Beverly Glen Blvd.	<p>3<math>\phi</math>, ATSAC</p>	<p>4<math>\phi</math>, ATCS</p>	SAME AS WITHOUT PROJECT

LEGEND:

ST :STOP CONTROLLED  
 OPP :OPPOSED PHASING  
 OVL :OVERLAP

ATSAC :AUTOMATED TRAFFIC SURVEILLANCE AND CONTROL  
 ATCS :ADAPTIVE TRAFFIC CONTROL SYSTEM

\* FUNCTIONS AS A SEPARATE LANE, ALTHOUGH NOT STRIPED

FIGURE B-1

10/30/02

FN: ABC ENTERTAINMENT CTR-REVISED TURN MOVEMENTS-4

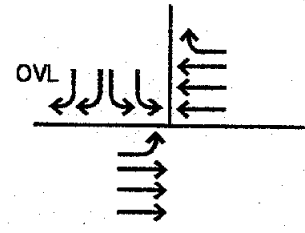
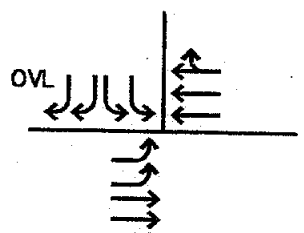
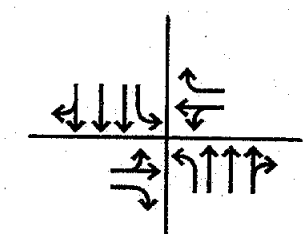
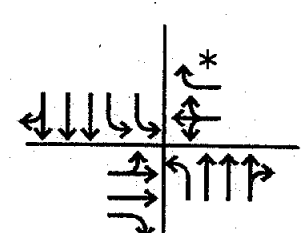
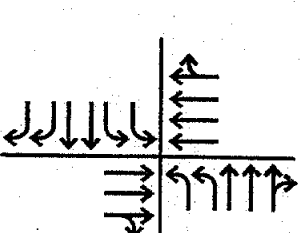
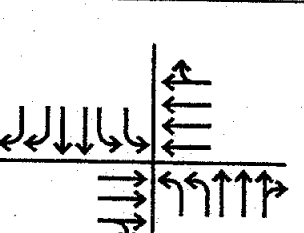
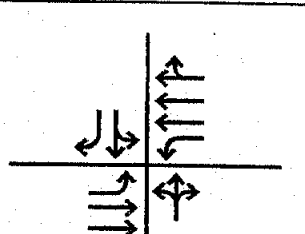
STUDY INTERSECTION  
 GEOMETRIC AND TRAFFIC CONTROL CONDITIONS  
 (REVISED)



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INTERSECTION	2001 EXISTING	2005 WITHOUT PROJECT	2005 WITH PROJECT
21. Olympic Blvd. & Century Park West	 <p>3ø, ATSAC</p>	 <p>3ø, ATCS</p>	SAME AS WITHOUT PROJECT
22. Olympic Blvd. (WB Ramps) & Avenue of the Stars	 <p>2ø, ATSAC</p>	SAME AS EXISTING	SAME AS EXISTING
23. Olympic Blvd. (EB Ramps) & Avenue of the Stars	 <p>3ø, ATSAC</p>	SAME AS EXISTING	SAME AS EXISTING
24. Olympic Blvd. & Century Park East	 <p>3ø, ATSAC</p>	 <p>3ø, ATCS</p>	SAME AS WITHOUT PROJECT
25. Olympic Blvd. & Spalding Dr.	 <p>2ø</p>	SAME AS EXISTING	SAME AS EXISTING

**LEGEND:**

ST : STOP CONTROLLED  
 OPP : OPPOSED PHASING  
 OVL : OVERLAP

ATSAC : AUTOMATED TRAFFIC SURVEILLANCE AND CONTROL  
 ATCS : ADAPTIVE TRAFFIC CONTROL SYSTEM

\* FUNCTIONS AS A SEPARATE LANE, ALTHOUGH NOT STRIPED

FIGURE B-1

18/0002

FN: ABC ENTERTAINMENT CTR-REVISED TURN MOVEMENTS-6

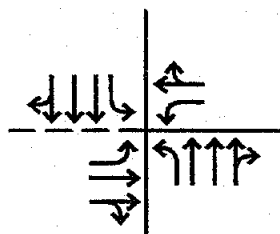
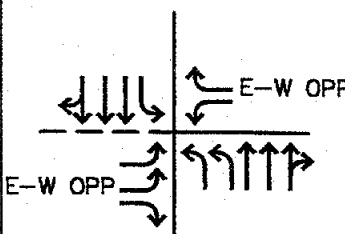
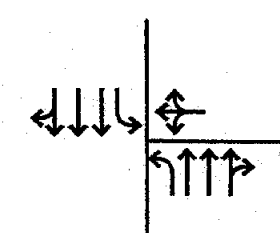
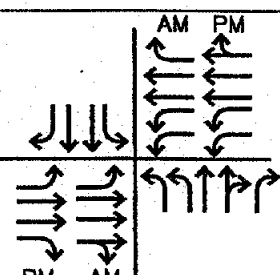
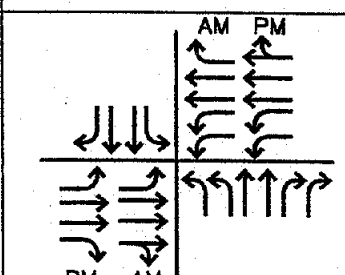
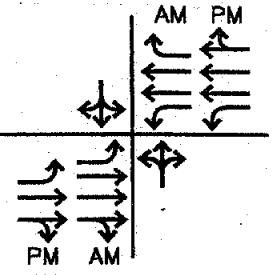
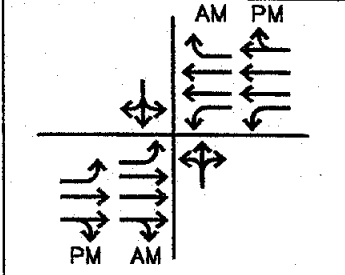
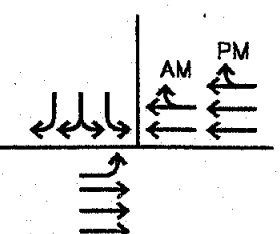
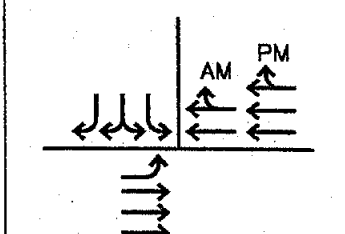
STUDY INTERSECTION  
 GEOMETRIC AND TRAFFIC CONTROL CONDITIONS  
 (REVISED)



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Transportation Planning • Traffic Engineering

INTERSECTION	2001 EXISTING	2005 WITHOUT PROJECT	2005 WITH PROJECT
26. Galaxy Way & Avenue of the Stars	 <p>2ø, ATCS</p>	 <p>3ø, ATCS</p>	SAME AS WITHOUT PROJECT
27. Empyrean Way & Avenue of the Stars	 <p>ST</p>	SAME AS EXISTING	SAME AS EXISTING
28. Pico Blvd. & Overland Ave.	 <p>4ø, ATCS</p>	 <p>4ø, ATCS</p>	SAME AS WITHOUT PROJECT
29. Pico Blvd. & Patricia Ave.	 <p>3ø, ATCS</p>	 <p>3ø, ATCS</p>	SAME AS WITHOUT PROJECT
30. Pico Blvd. & Beverly Glen Blvd.	 <p>2ø, ATCS</p>	 <p>2ø, ATCS</p>	SAME AS WITHOUT PROJECT

LEGEND:

ST : STOP CONTROLLED  
 OPP : OPPOSED PHASING  
 OVL : OVERLAP

ATCS : AUTOMATED TRAFFIC SURVEILLANCE AND CONTROL  
 ATCS : ADAPTIVE TRAFFIC CONTROL SYSTEM

\* FUNCTIONS AS A SEPARATE LANE, ALTHOUGH NOT STRIPED

FIGURE B-1

10/20/02

FN: ABC ENTERTAINMENT CTR-REVISED TURN MOVEMENTS 6

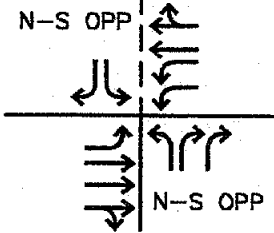
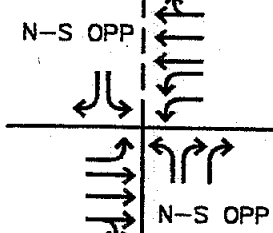
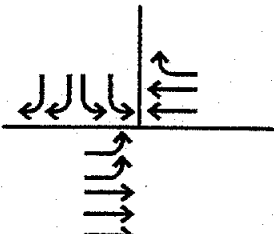
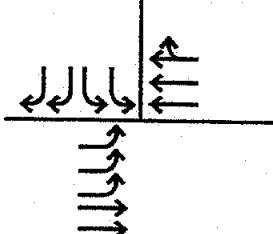
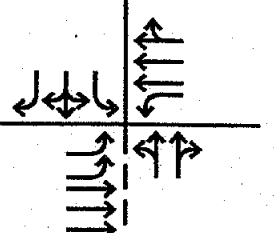
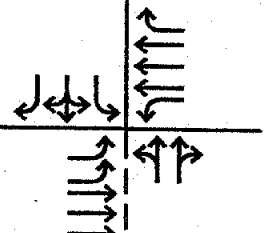
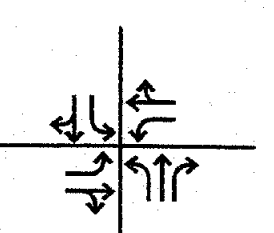
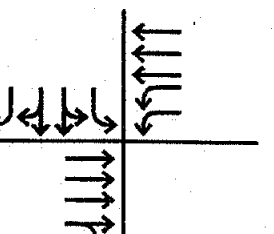
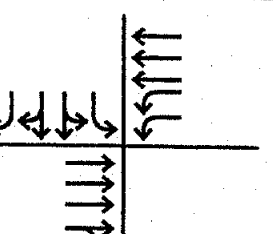
STUDY INTERSECTION  
 GEOMETRIC AND TRAFFIC CONTROL CONDITIONS  
 (REVISED)



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 Los Angeles, California 90025  
 (310) 473-6508

Transportation Planning - Traffic Engineering

INTERSECTION	2001 EXISTING	2005 WITHOUT PROJECT	2005 WITH PROJECT
31. Pico Blvd. & Motor Ave.	 <p>4<math>\phi</math>, ATCS</p>	 <p>4<math>\phi</math>, ATCS</p>	SAME AS WITHOUT PROJECT
32. Pico Blvd. & Avenue of the Stars	 <p>3<math>\phi</math>, ATCS</p>	 <p>3<math>\phi</math>, ATCS</p>	SAME AS WITHOUT PROJECT
33. Pico Blvd. & Century Park East	 <p>3<math>\phi</math>, ATCS</p>	 <p>3<math>\phi</math>, ATCS</p>	SAME AS WITHOUT PROJECT
34. Manning Ave. & Motor Ave.	 <p>2<math>\phi</math>, ATCS</p>	SAME AS EXISTING	SAME AS EXISTING
35. Santa Monica Blvd. & 405 Fwy. SB Ramps/ Beloit Ave.	 <p>3<math>\phi</math>, ATCS</p>	 <p>3<math>\phi</math>, ATCS</p>	SAME AS WITHOUT PROJECT

LEGEND:

ST : STOP CONTROLLED  
 OPP : OPPOSED PHASING  
 OVL : OVERLAP

ATCSAC : AUTOMATED TRAFFIC SURVEILLANCE AND CONTROL  
 ATCS : ADAPTIVE TRAFFIC CONTROL SYSTEM

\* FUNCTIONS AS A SEPARATE LANE, ALTHOUGH NOT STRIPED

FIGURE B-1

10/30/02

PN: ABC ENTERTAINMENT CTR-REVISED TURN MOVEMENTS-7

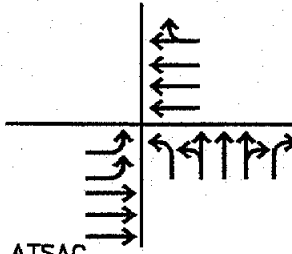
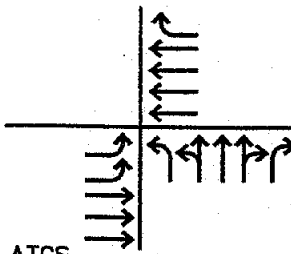
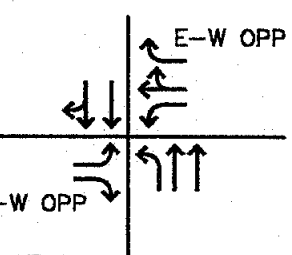
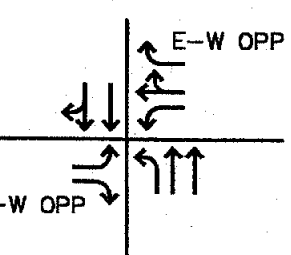
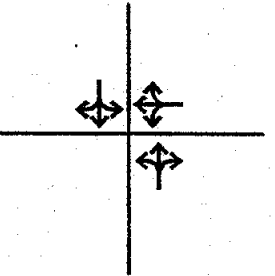
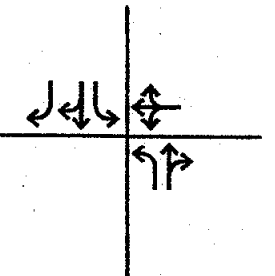
STUDY INTERSECTION  
 GEOMETRIC AND TRAFFIC CONTROL CONDITIONS  
 (REVISED)



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INTERSECTION	2001 EXISTING	2005 WITHOUT PROJECT	2005 WITH PROJECT
36. Santa Monica Blvd. & 405 Fwy. NB Ramps/ Cotner Ave.	 <p>3ø, ATC SAC</p>	 <p>3ø, ATCS</p>	SAME AS WITHOUT PROJECT
37. 405 SB Off-Ramp/ Tennessee Ave. & Sawtelle Blvd.	 <p>E-W OPP</p> <p>E-W OPP</p> <p>3ø, ATC SAC</p>	 <p>E-W OPP</p> <p>E-W OPP</p> <p>3ø, ATCS</p>	SAME AS WITHOUT PROJECT
38. 405 Fwy. NB On-Ramp/ Tennessee Ave. & Cotner Ave.	 <p>ST</p>	 <p>ST</p>	SAME AS WITHOUT PROJECT

**LEGEND:**

ST : STOP CONTROLLED  
 OPP : OPPOSED PHASING  
 OVL : OVERLAP

ATC SAC : AUTOMATED TRAFFIC SURVEILLANCE AND CONTROL  
 ATCS : ADAPTIVE TRAFFIC CONTROL SYSTEM

\* FUNCTIONS AS A SEPARATE LANE, ALTHOUGH NOT STRIPED

**FIGURE B-1**

10/30/02

FBI: ABC ENTERTAINMENT CTR-REVISED TURN MOVEMENTS-8

**STUDY INTERSECTION  
 GEOMETRIC AND TRAFFIC CONTROL CONDITIONS  
 (REVISED)**



**CRAIN & ASSOCIATES**

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CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 14, SANTA MONICA BOULEVARD (N) & WILSHIRE BOULEVARD  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: EXISTING (2001)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	1671	218	282
EASTBOUND	0	800	43	114
NORTHBOUND	227	1361	8	0
SOUTHBOUND	611	1554	34	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	0	0	2	1	1	0	4
EASTBOUND	0	0	2	0	1	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	1	1	1	0	0	4

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED
	ONLY	SHARED		SHARED	ONLY	
WESTBOUND	N/A	N/A	557	N/A	218	N/A
EASTBOUND	N/A	N/A	400	N/A	43	N/A
NORTHBOUND	227	N/A	456	456	N/A	N/A
SOUTHBOUND	306	N/A	794	794	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 557  
 NORTH-SOUTH CRITICAL VOLUMES ..... 1021  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1578  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3  
 CMA VALUE ..... 1.107  
 LEVEL OF SERVICE ..... F

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 14, SANTA MONICA BOULEVARD (N) & WILSHIRE BOULEVARD  
 DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2005) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	2005	160	355
EASTBOUND	0	1017	69	150
NORTHBOUND	300	1498	9	0
SOUTHBOUND	683	1789	36	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
				SHARED	ONLY		
WESTBOUND	0	0	2	1	1	0	4
EASTBOUND	0	0	2	0	1	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	1	1	1	0	0	4

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT		L/T/R SHARED
				SHARED	ONLY	
WESTBOUND	N/A	N/A	668	N/A	160	N/A
EASTBOUND	N/A	N/A	508	N/A	69	N/A
NORTHBOUND	300	N/A	502	502	N/A	N/A
SOUTHBOUND	342	N/A	912	912	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 668  
 NORTH-SOUTH CRITICAL VOLUMES ..... 1212  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1880  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3  
 CMA VALUE ..... 1.319  
 LEVEL OF SERVICE ..... F

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 14, SANTA MONICA BOULEVARD (N) & WILSHIRE BOULEVARD  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: FUTURE (2005) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	2013	161	354
EASTBOUND	0	1003	69	150
NORTHBOUND	300	1498	10	0
SOUTHBOUND	683	1789	36	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	0	0	2	0	1	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	1	1	1	0	0	4

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	N/A	N/A	502	N/A	69	N/A
NORTHBOUND	300	N/A	503	503	N/A	N/A
SOUTHBOUND	342	N/A	912	912	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 671  
 NORTH-SOUTH CRITICAL VOLUMES ..... 1212  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1883  
 NUMBER OF CRITICAL CLEARANCE INTERVALS ..... 3  
 CMA VALUE ..... 1.321  
 LEVEL OF SERVICE ..... F

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 14, SANTA MONICA BOULEVARD (N) & WILSHIRE BOULEVARD  
 DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2005) WITH PROJECT PLUS MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	2010	161	354
EASTBOUND	0	1002	69	150
NORTHBOUND	300	1498	10	0
SOUTHBOUND	683	1789	36	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	0	0	2	0	1	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	1	1	1	0	0	4

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	N/A	N/A	501	N/A	69	N/A
NORTHBOUND	300	N/A	503	503	N/A	N/A
SOUTHBOUND	342	N/A	912	912	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	670
NORTH-SOUTH CRITICAL VOLUMES .....	1212
	-----
THE SUM OF CRITICAL VOLUMES .....	1882
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3
CMA VALUE .....	1.321
LEVEL OF SERVICE .....	F

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 14, SANTA MONICA BOULEVARD (N) & WILSHIRE BOULEVARD  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: EXISTING (2001)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	RIGHT TURNS	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	1157	593	184
EASTBOUND	0	1014	55	98
NORTHBOUND	197	1414	35	0
SOUTHBOUND	699	1283	26	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
	WESTBOUND	0	0	2	1	1	0
EASTBOUND	0	0	2	0	1	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	1	1	1	0	0	4

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	N/A	N/A	438	438	438
EASTBOUND	N/A	N/A	507	N/A	55	N/A
NORTHBOUND	197	N/A	483	483	N/A	N/A
SOUTHBOUND	350	N/A	654	654	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 507  
 NORTH-SOUTH CRITICAL VOLUMES ..... 851  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1358  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3  
 CMA VALUE ..... 0.953  
 LEVEL OF SERVICE ..... E

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 14, SANTA MONICA BOULEVARD (N) & WILSHIRE BOULEVARD  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: FUTURE (2005) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	1487	660	222
EASTBOUND	0	1365	87	136
NORTHBOUND	271	1730	45	0
SOUTHBOUND	751	1499	28	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
				SHARED	ONLY		
WESTBOUND	0	0	2	1	1	0	4
EASTBOUND	0	0	2	0	1	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	1	1	1	0	0	4

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT		L/T/R SHARED
				SHARED	ONLY	
WESTBOUND	N/A	N/A	537	537	537	N/A
EASTBOUND	N/A	N/A	682	N/A	87	N/A
NORTHBOUND	271	N/A	592	592	N/A	N/A
SOUTHBOUND	376	N/A	764	764	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 682  
 NORTH-SOUTH CRITICAL VOLUMES ..... 1035  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1717  
 NUMBER OF CRITICAL CLEARANCE INTERVALS ..... 3  
 CMA VALUE ..... 1.205  
 LEVEL OF SERVICE ..... F

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 14, SANTA MONICA BOULEVARD (N) & WILSHIRE BOULEVARD  
 DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2005) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	1432	660	222
EASTBOUND	0	1348	87	136
NORTHBOUND	271	1730	45	0
SOUTHBOUND	751	1499	28	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	0	0	2	0	1	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	1	1	1	0	0	4

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	N/A	N/A	674	N/A	87	N/A
NORTHBOUND	271	N/A	592	592	N/A	N/A
SOUTHBOUND	376	N/A	764	764	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 674  
 NORTH-SOUTH CRITICAL VOLUMES ..... 1035  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1709  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3  
 CMA VALUE ..... 1.199  
 LEVEL OF SERVICE ..... F

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 14, SANTA MONICA BOULEVARD (N) & WILSHIRE BOULEVARD  
 DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2005) WITH PROJECT PLUS MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	1432	660	222
EASTBOUND	0	1345	87	136
NORTHBOUND	271	1730	45	0
SOUTHBOUND	751	1499	28	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
				SHARED	ONLY		
WESTBOUND	0	0	2	1	1	0	4
EASTBOUND	0	0	2	0	1	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	1	1	1	0	0	4

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT		L/T/R SHARED
				SHARED	ONLY	
WESTBOUND	N/A	N/A	523	523	523	N/A
EASTBOUND	N/A	N/A	672	N/A	87	N/A
NORTHBOUND	271	N/A	592	592	N/A	N/A
SOUTHBOUND	376	N/A	764	764	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 672  
 NORTH-SOUTH CRITICAL VOLUMES ..... 1035  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1707  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3  
 CMA VALUE ..... 1.198  
 LEVEL OF SERVICE ..... F



CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 15, SANTA MONICA BOULEVARD (S) & WILSHIRE BOULEVARD  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: EXISTING (2001)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	47	983	285	0
EASTBOUND	85	606	0	192
NORTHBOUND	177	1243	44	0
SOUTHBOUND	200	1362	107	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
				SHARED	ONLY		
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	0	1	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT		L/T/R SHARED
				SHARED	ONLY	
WESTBOUND	47	N/A	634	634	N/A	N/A
EASTBOUND	85	N/A	303	N/A	0	N/A
NORTHBOUND	177	N/A	429	429	N/A	N/A
SOUTHBOUND	N/A	556	556	556	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	718
NORTH-SOUTH CRITICAL VOLUMES .....	985
<hr/>	
THE SUM OF CRITICAL VOLUMES .....	1703
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3*
CMA VALUE .....	1.195
LEVEL OF SERVICE .....	F

-----  
Northbound and Southbound approaches have opposed signal phases.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 15, SANTA MONICA BOULEVARD (S) & WILSHIRE BOULEVARD  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: FUTURE (2005) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	50	1130	302	0
EASTBOUND	92	676	20	246
NORTHBOUND	334	1425	48	0
SOUTHBOUND	216	1602	134	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	0	1	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	92	N/A	338	N/A	20	N/A
NORTHBOUND	334	N/A	491	491	N/A	N/A
SOUTHBOUND	N/A	651	651	651	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 808  
 NORTH-SOUTH CRITICAL VOLUMES ..... 1142  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1950  
 NUMBER OF CRITICAL CLEARANCE INTERVALS ..... 3\*  
 CMA VALUE ..... 1.368  
 LEVEL OF SERVICE ..... F

-----  
 Northbound and Southbound approaches have opposed signal phases.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 15, SANTA MONICA BOULEVARD (S) & WILSHIRE BOULEVARD  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: FUTURE (2005) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	50	1131	302	0
EASTBOUND	92	674	13	246
NORTHBOUND	338	1425	48	0
SOUTHBOUND	216	1602	134	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
				SHARED	ONLY		
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	0	1	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT		L/T/R SHARED
				SHARED	ONLY	
WESTBOUND	50	N/A	716	716	N/A	N/A
EASTBOUND	92	N/A	337	N/A	13	N/A
NORTHBOUND	338	N/A	491	491	N/A	N/A
SOUTHBOUND	N/A	651	651	651	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 808  
 NORTH-SOUTH CRITICAL VOLUMES ..... 1142  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1950  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 1.368  
 LEVEL OF SERVICE ..... F

-----  
 Northbound and Southbound approaches have opposed signal phases.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 15, SANTA MONICA BOULEVARD (S) & WILSHIRE BOULEVARD  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: FUTURE (2005) WITH PROJECT PLUS MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	50	1131	302	0
EASTBOUND	92	674	13	246
NORTHBOUND	336	1425	48	0
SOUTHBOUND	216	1602	134	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
	WESTBOUND	1	0	1	1	0	0
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	0	1	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	50	N/A	716	716	N/A
EASTBOUND	92	N/A	337	N/A	13	N/A
NORTHBOUND	336	N/A	491	491	N/A	N/A
SOUTHBOUND	N/A	651	651	651	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	808
NORTH-SOUTH CRITICAL VOLUMES .....	1142
	-----
THE SUM OF CRITICAL VOLUMES .....	1950
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3*
CMA VALUE .....	1.368
LEVEL OF SERVICE .....	F

-----  
Northbound and Southbound approaches have opposed signal phases.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 15, SANTA MONICA BOULEVARD (S) & WILSHIRE BOULEVARD  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: EXISTING (2001)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	35	572	284	0
EASTBOUND	94	950	91	222
NORTHBOUND	240	1268	68	0
SOUTHBOUND	161	1214	45	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	0	1	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	35	N/A	428	428	N/A	N/A
EASTBOUND	94	N/A	475	N/A	91	N/A
NORTHBOUND	240	N/A	445	445	N/A	N/A
SOUTHBOUND	N/A	473	473	473	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 522  
 NORTH-SOUTH CRITICAL VOLUMES ..... 918  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1440  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 1.011  
 LEVEL OF SERVICE ..... F

-----  
 Northbound and Southbound approaches have opposed signal phases.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 15, SANTA MONICA BOULEVARD (S) & WILSHIRE BOULEVARD  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: FUTURE (2005) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	38	650	310	0
EASTBOUND	129	1095	209	276
NORTHBOUND	340	1586	72	0
SOUTHBOUND	177	1464	51	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	0	1	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	38	N/A	480	480	N/A	N/A
EASTBOUND	129	N/A	548	N/A	209	N/A
NORTHBOUND	340	N/A	553	553	N/A	N/A
SOUTHBOUND	N/A	564	564	564	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 608  
 NORTH-SOUTH CRITICAL VOLUMES ..... 1117  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1725  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 1.211  
 LEVEL OF SERVICE ..... F

-----  
 Northbound and Southbound approaches have opposed signal phases.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 15, SANTA MONICA BOULEVARD (S) & WILSHIRE BOULEVARD  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: FUTURE (2005) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	38	643	310	0
EASTBOUND	129	1093	200	276
NORTHBOUND	313	1586	72	0
SOUTHBOUND	177	1464	51	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	0	1	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	129	N/A	546	N/A	200	N/A
NORTHBOUND	313	N/A	553	553	N/A	N/A
SOUTHBOUND	N/A	564	564	564	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	604
NORTH-SOUTH CRITICAL VOLUMES .....	1117
	-----
THE SUM OF CRITICAL VOLUMES .....	1721
NUMBER OF CRITICAL CLEARANCE INTERVALS ....	3*
CMA VALUE .....	1.208
LEVEL OF SERVICE .....	F

-----  
Northbound and Southbound approaches have opposed signal phases.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 15, SANTA MONICA BOULEVARD (S) & WILSHIRE BOULEVARD  
 DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2005) WITH PROJECT PLUS MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	38	643	310	0
EASTBOUND	129	1092	199	276
NORTHBOUND	312	1586	72	0
SOUTHBOUND	177	1464	51	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	0	1	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	38	N/A	476	476	N/A	N/A
EASTBOUND	129	N/A	546	N/A	199	N/A
NORTHBOUND	312	N/A	553	553	N/A	N/A
SOUTHBOUND	N/A	564	564	564	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 604  
 NORTH-SOUTH CRITICAL VOLUMES ..... 1117  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1721  
 NUMBER OF CRITICAL CLEARANCE INTERVALS ..... 3\*  
 CMA VALUE ..... 1.208  
 LEVEL OF SERVICE ..... F

-----  
 Northbound and Southbound approaches have opposed signal phases.



CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 18, CONSTELLATION BOULEVARD & CENTURY PARK EAST  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: EXISTING (2001)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	8	18	26	0
EASTBOUND	223	0	36	84
NORTHBOUND	168	1029	0	0
SOUTHBOUND	2	590	160	62

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	0	0	0	0	0	1	1
EASTBOUND	2	0	0	0	2	0	4
NORTHBOUND	1	0	3	0	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED
	ONLY	SHARED		SHARED	ONLY	
WESTBOUND	N/A	N/A	N/A	N/A	N/A	52
EASTBOUND	123	N/A	N/A	N/A	18	N/A
NORTHBOUND	168	N/A	343	N/A	N/A	N/A
SOUTHBOUND	2	N/A	295	N/A	160	N/A

EAST-WEST CRITICAL VOLUMES ..... 175  
 NORTH-SOUTH CRITICAL VOLUMES ..... 463  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 638  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 0.381  
 LEVEL OF SERVICE ..... A

\* Includes CMA value decreased due to ATSAC Implementation.

Eastbound and Westbound approaches have opposed signal phases.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 18, CONSTELLATION BOULEVARD & CENTURY PARK EAST  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: FUTURE (2005) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	8	19	28	0
EASTBOUND	248	0	0	156
NORTHBOUND	344	1137	0	0
SOUTHBOUND	2	678	340	68

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
	WESTBOUND	0	0	0	0	0	1
EASTBOUND	2	0	0	0	2	0	4
NORTHBOUND	1	0	3	0	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	N/A	N/A	N/A	N/A	N/A
EASTBOUND	136	N/A	N/A	N/A	0	N/A
NORTHBOUND	344	N/A	379	N/A	N/A	N/A
SOUTHBOUND	2	N/A	339	N/A	340	N/A

EAST-WEST CRITICAL VOLUMES .....	191
NORTH-SOUTH CRITICAL VOLUMES .....	684
	-----
THE SUM OF CRITICAL VOLUMES .....	875
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3*
CMA VALUE .....	0.514
LEVEL OF SERVICE .....	A

\* Includes CMA value decreased due to ATCS Implementation.

Eastbound and Westbound approaches have opposed signal phases.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 18, CONSTELLATION BOULEVARD & CENTURY PARK EAST  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: FUTURE (2005) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	10	19	28	0
EASTBOUND	212	0	0	142
NORTHBOUND	344	1137	0	0
SOUTHBOUND	10	686	355	58

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	2	0	0	0	2	0	4
NORTHBOUND	1	0	3	0	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	117	N/A	N/A	N/A	0	N/A
NORTHBOUND	344	N/A	379	N/A	N/A	N/A
SOUTHBOUND	10	N/A	343	N/A	355	N/A

EAST-WEST CRITICAL VOLUMES .....	174
NORTH-SOUTH CRITICAL VOLUMES .....	699
	-----
THE SUM OF CRITICAL VOLUMES .....	873
NUMBER OF CRITICAL CLEARANCE INTERVALS ....	3*
CMA VALUE .....	0.513
LEVEL OF SERVICE .....	A

\* Includes CMA value decreased due to ATCS Implementation.

Eastbound and Westbound approaches have opposed signal phases.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 18, CONSTELLATION BOULEVARD & CENTURY PARK EAST  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: FUTURE (2005) WITH PROJECT PLUS MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	10	19	28	0
EASTBOUND	211	0	0	139
NORTHBOUND	344	1137	0	0
SOUTHBOUND	10	683	353	58

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	2	0	0	0	2	0	4
NORTHBOUND	1	0	3	0	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	116	N/A	N/A	N/A	0	N/A
NORTHBOUND	344	N/A	379	N/A	N/A	N/A
SOUTHBOUND	10	N/A	342	N/A	353	N/A

EAST-WEST CRITICAL VOLUMES ..... 173

NORTH-SOUTH CRITICAL VOLUMES ..... 697

THE SUM OF CRITICAL VOLUMES ..... 870

NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*

CMA VALUE ..... 0.511

LEVEL OF SERVICE ..... A

\* Includes CMA value decreased due to ATCS Implementation.

Eastbound and Westbound approaches have opposed signal phases.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 18, CONSTELLATION BOULEVARD & CENTURY PARK EAST  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: EXISTING (2001)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	9	28	0
EASTBOUND	586	0	463	46
NORTHBOUND	92	502	0	0
SOUTHBOUND	45	978	55	161

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	2	0	0	0	2	0	4
NORTHBOUND	1	0	3	0	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	322	N/A	N/A	N/A	232	N/A
NORTHBOUND	92	N/A	167	N/A	N/A	N/A
SOUTHBOUND	45	N/A	489	N/A	55	N/A

EAST-WEST CRITICAL VOLUMES .....	359
NORTH-SOUTH CRITICAL VOLUMES .....	581
	-----
THE SUM OF CRITICAL VOLUMES .....	940
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3*
CMA VALUE .....	0.590
LEVEL OF SERVICE .....	A

\* Includes CMA value decreased due to ATSAC Implementation.

Eastbound and Westbound approaches have opposed signal phases.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 18, CONSTELLATION BOULEVARD & CENTURY PARK EAST  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: FUTURE (2005) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	10	30	0
EASTBOUND	695	0	545	74
NORTHBOUND	147	584	0	0
SOUTHBOUND	48	1038	73	191

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	2	0	0	0	2	0	4
NORTHBOUND	1	0	3	0	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	382	N/A	N/A	N/A	272	N/A
NORTHBOUND	147	N/A	195	N/A	N/A	N/A
SOUTHBOUND	48	N/A	519	N/A	73	N/A

EAST-WEST CRITICAL VOLUMES ..... 422  
 NORTH-SOUTH CRITICAL VOLUMES ..... 666  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1088  
 NUMBER OF CRITICAL CLEARANCE INTERVALS ..... 3\*  
 CMA VALUE ..... 0.664  
 LEVEL OF SERVICE ..... B

\* Includes CMA value decreased due to ATCS Implementation.

Eastbound and Westbound approaches have opposed signal phases.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 18, CONSTELLATION BOULEVARD & CENTURY PARK EAST  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: FUTURE (2005) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	10	30	0
EASTBOUND	652	0	480	74
NORTHBOUND	147	584	0	0
SOUTHBOUND	48	983	50	180

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
	WESTBOUND	0	0	0	0	0	1
EASTBOUND	2	0	0	0	2	0	4
NORTHBOUND	1	0	3	0	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	N/A	N/A	N/A	N/A	N/A
EASTBOUND	359	N/A	N/A	N/A	240	N/A
NORTHBOUND	147	N/A	195	N/A	N/A	N/A
SOUTHBOUND	48	N/A	492	N/A	50	N/A

EAST-WEST CRITICAL VOLUMES .....	399
NORTH-SOUTH CRITICAL VOLUMES .....	639
	-----
THE SUM OF CRITICAL VOLUMES .....	1038
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3*
CMA VALUE .....	0.628
LEVEL OF SERVICE .....	B

\* Includes CMA value decreased due to ATCS Implementation.

Eastbound and Westbound approaches have opposed signal phases.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 18, CONSTELLATION BOULEVARD & CENTURY PARK EAST  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: FUTURE (2005) WITH PROJECT PLUS MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	** RIGHT TURNS **			
	LEFT	THROUGH	MIN ON GREEN	MAX ON RED
WESTBOUND	0	10	30	0
EASTBOUND	645	0	476	74
NORTHBOUND	147	584	0	0
SOUTHBOUND	48	983	51	178

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
	WESTBOUND	0	0	0	0	0	1
EASTBOUND	2	0	0	0	2	0	4
NORTHBOUND	1	0	3	0	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	N/A	N/A	N/A	N/A	N/A
EASTBOUND	355	N/A	N/A	N/A	238	N/A
NORTHBOUND	147	N/A	195	N/A	N/A	N/A
SOUTHBOUND	48	N/A	492	N/A	51	N/A

EAST-WEST CRITICAL VOLUMES ..... 395  
 NORTH-SOUTH CRITICAL VOLUMES ..... 639  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1034  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 0.626  
 LEVEL OF SERVICE ..... B

\* Includes CMA value decreased due to ATCS Implementation.

Eastbound and Westbound approaches have opposed signal phases.



CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 24, OLYMPIC BOULEVARD & CENTURY PARK EAST  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: EXISTING (2001)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	RIGHT TURNS	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	2633	469	0
EASTBOUND	0	1948	51	0
NORTHBOUND	419	847	112	0
SOUTHBOUND	130	147	119	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
	WESTBOUND	0	0	3	1	0	0
EASTBOUND	0	0	2	1	0	0	3
NORTHBOUND	2	0	2	1	0	0	5
SOUTHBOUND	2	0	2	0	2	0	6

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	N/A	N/A	776	776	N/A
EASTBOUND	N/A	N/A	666	666	N/A	N/A
NORTHBOUND	230	N/A	320	320	N/A	N/A
SOUTHBOUND	71	N/A	74	N/A	60	N/A

EAST-WEST CRITICAL VOLUMES .....	776
NORTH-SOUTH CRITICAL VOLUMES .....	391
	-----
THE SUM OF CRITICAL VOLUMES .....	1167
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3
CMA VALUE .....	0.749
LEVEL OF SERVICE .....	C

\* Includes CMA value decreased due to ATISAC Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 24, OLYMPIC BOULEVARD & CENTURY PARK EAST  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: FUTURE (2005) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	2981	610	0
EASTBOUND	0	2119	61	0
NORTHBOUND	476	998	119	0
SOUTHBOUND	196	194	111	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	0	0	3	1	0	0	4
EASTBOUND	0	0	2	1	0	0	3
NORTHBOUND	2	0	2	1	0	0	5
SOUTHBOUND	2	0	2	0	2	0	6

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	898	898	N/A	N/A
EASTBOUND	N/A	N/A	727	727	N/A	N/A
NORTHBOUND	262	N/A	372	372	N/A	N/A
SOUTHBOUND	108	N/A	97	N/A	56	N/A

EAST-WEST CRITICAL VOLUMES .....	898
NORTH-SOUTH CRITICAL VOLUMES .....	480
	-----
THE SUM OF CRITICAL VOLUMES .....	1378
NUMBER OF CRITICAL CLEARANCE INTERVALS ....	3
CMA VALUE .....	0.867
LEVEL OF SERVICE .....	D

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\* Includes CMA value decreased due to ATCS Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 24, OLYMPIC BOULEVARD & CENTURY PARK EAST  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: FUTURE (2005) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	RIGHT TURNS	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	2995	610	0
EASTBOUND	0	2119	61	0
NORTHBOUND	481	998	119	0
SOUTHBOUND	178	192	82	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	0	0	2	1	0	0	3
NORTHBOUND	2	0	2	1	0	0	5
SOUTHBOUND	2	0	2	0	2	0	6

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	N/A	N/A	727	727	N/A	N/A
NORTHBOUND	265	N/A	372	372	N/A	N/A
SOUTHBOUND	98	N/A	96	N/A	41	N/A

EAST-WEST CRITICAL VOLUMES .....	901
NORTH-SOUTH CRITICAL VOLUMES .....	470
	-----
THE SUM OF CRITICAL VOLUMES .....	1371
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3
CMA VALUE .....	0.862
LEVEL OF SERVICE .....	D

\* Includes CMA value decreased due to ATCS Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 24, OLYMPIC BOULEVARD & CENTURY PARK EAST  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: FUTURE (2005) WITH PROJECT PLUS MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	2989	610	0
EASTBOUND	0	2119	61	0
NORTHBOUND	479	998	119	0
SOUTHBOUND	177	192	81	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	0	0	2	1	0	0	3
NORTHBOUND	2	0	2	1	0	0	5
SOUTHBOUND	2	0	2	0	2	0	6

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	N/A	N/A	727	727	N/A	N/A
NORTHBOUND	264	N/A	372	372	N/A	N/A
SOUTHBOUND	97	N/A	96	N/A	40	N/A

EAST-WEST CRITICAL VOLUMES ..... 900  
 NORTH-SOUTH CRITICAL VOLUMES ..... 469  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1369  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3  
 CMA VALUE ..... 0.861  
 LEVEL OF SERVICE ..... D

\* Includes CMA value decreased due to ATCS Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 24, OLYMPIC BOULEVARD & CENTURY PARK EAST  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: EXISTING (2001)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	2531	249	0
EASTBOUND	0	2218	95	0
NORTHBOUND	88	234	127	0
SOUTHBOUND	600	571	585	38

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
	WESTBOUND	0	0	3	1	0	0
EASTBOUND	0	0	2	1	0	0	3
NORTHBOUND	2	0	2	1	0	0	5
SOUTHBOUND	2	0	2	0	2	0	6

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	N/A	N/A	695	695	N/A
EASTBOUND	N/A	N/A	771	771	N/A	N/A
NORTHBOUND	48	N/A	117	N/A	127	N/A
SOUTHBOUND	330	N/A	286	N/A	292	N/A

EAST-WEST CRITICAL VOLUMES .....	771
NORTH-SOUTH CRITICAL VOLUMES .....	457
	-----
THE SUM OF CRITICAL VOLUMES .....	1228
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3
CMA VALUE .....	0.792
LEVEL OF SERVICE .....	C

\* Includes CMA value decreased due to ATSAC Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 24, OLYMPIC BOULEVARD & CENTURY PARK EAST  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: FUTURE (2005) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	2804	336	0
EASTBOUND	0	2537	127	0
NORTHBOUND	100	277	138	0
SOUTHBOUND	749	668	514	52

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	0	0	3	1	0	0	4
EASTBOUND	0	0	2	1	0	0	3
NORTHBOUND	2	0	2	1	0	0	5
SOUTHBOUND	2	0	2	0	2	0	6

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED
	ONLY	SHARED		SHARED	ONLY	
WESTBOUND	N/A	N/A	785	785	N/A	N/A
EASTBOUND	N/A	N/A	888	888	N/A	N/A
NORTHBOUND	55	N/A	138	138	N/A	N/A
SOUTHBOUND	412	N/A	334	N/A	257	N/A

EAST-WEST CRITICAL VOLUMES .....	888
NORTH-SOUTH CRITICAL VOLUMES .....	550
	-----
THE SUM OF CRITICAL VOLUMES .....	1438
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3
CMA VALUE .....	0.909
LEVEL OF SERVICE .....	E

\* Includes CMA value decreased due to ATCS Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 24, OLYMPIC BOULEVARD & CENTURY PARK EAST  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: FUTURE (2005) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	2708	336	0
EASTBOUND	0	2537	127	0
NORTHBOUND	66	277	138	0
SOUTHBOUND	727	666	467	64

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	0	0	2	1	0	0	3
NORTHBOUND	2	0	2	1	0	0	5
SOUTHBOUND	2	0	2	0	2	0	6

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	N/A	N/A	888	888	N/A	N/A
NORTHBOUND	36	N/A	138	138	N/A	N/A
SOUTHBOUND	400	N/A	333	N/A	234	N/A

EAST-WEST CRITICAL VOLUMES .....	888
NORTH-SOUTH CRITICAL VOLUMES .....	538
THE SUM OF CRITICAL VOLUMES .....	1426
NUMBER OF CRITICAL CLEARANCE INTERVALS ....	3
CMA VALUE .....	0.901
LEVEL OF SERVICE .....	E

\* Includes CMA value decreased due to ATCS Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 24, OLYMPIC BOULEVARD & CENTURY PARK EAST  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: FUTURE (2005) WITH PROJECT PLUS MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	2707	336	0
EASTBOUND	0	2537	127	0
NORTHBOUND	65	277	138	0
SOUTHBOUND	724	665	462	64

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	0	0	2	1	0	0	3
NORTHBOUND	2	0	2	1	0	0	5
SOUTHBOUND	2	0	2	0	2	0	6

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	N/A	N/A	888	888	N/A	N/A
NORTHBOUND	36	N/A	138	138	N/A	N/A
SOUTHBOUND	398	N/A	332	N/A	231	N/A

EAST-WEST CRITICAL VOLUMES .....	888
NORTH-SOUTH CRITICAL VOLUMES .....	536
THE SUM OF CRITICAL VOLUMES .....	1424
NUMBER OF CRITICAL CLEARANCE INTERVALS ....	3
CMA VALUE .....	0.899
LEVEL OF SERVICE .....	D

\* Includes CMA value decreased due to ATCS Implementation.



CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 29, PICO BOULEVARD & PATRICIA AVENUE  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: EXISTING (2001)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	79	1530	42	5
EASTBOUND	43	1727	69	0
NORTHBOUND	28	107	186	0
SOUTHBOUND	10	63	34	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	2	0	1	0	4
EASTBOUND	1	0	2	1	0	0	4
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	79	N/A	765	N/A	42	N/A
EASTBOUND	43	N/A	599	599	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	321
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	107

EAST-WEST CRITICAL VOLUMES .....	808
NORTH-SOUTH CRITICAL VOLUMES .....	331
THE SUM OF CRITICAL VOLUMES .....	1139
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3
CMA VALUE .....	0.729
LEVEL OF SERVICE .....	C

\* Includes CMA value decreased due to ATISAC Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 29, PICO BOULEVARD & PATRICIA AVENUE  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: FUTURE (2005) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	84	1583	44	5
EASTBOUND	45	1959	72	0
NORTHBOUND	29	112	204	0
SOUTHBOUND	10	66	36	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	0	2	0	1	0	4
EASTBOUND	1	0	2	1	0	0	4
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	84	N/A	792	N/A	44	N/A
EASTBOUND	45	N/A	677	677	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	345
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	112

EAST-WEST CRITICAL VOLUMES ..... 837  
 NORTH-SOUTH CRITICAL VOLUMES ..... 355  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1192  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3  
 CMA VALUE ..... 0.736  
 LEVEL OF SERVICE ..... C

\* Includes CMA value decreased due to ATCS Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 29, PICO BOULEVARD & PATRICIA AVENUE  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: FUTURE (2005) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	82	1559	44	5
EASTBOUND	45	1971	72	0
NORTHBOUND	29	112	205	0
SOUTHBOUND	10	66	36	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	2	1	0	0	4
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	45	N/A	681	681	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	346
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	112

EAST-WEST CRITICAL VOLUMES ..... 825  
 NORTH-SOUTH CRITICAL VOLUMES ..... 356  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1181  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3  
 CMA VALUE ..... 0.729  
 LEVEL OF SERVICE ..... C

\* Includes CMA value decreased due to ATCS Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 29, PICO BOULEVARD & PATRICIA AVENUE  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: FUTURE (2005) WITH PROJECT PLUS MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	82	1559	44	5
EASTBOUND	45	1966	72	0
NORTHBOUND	29	112	205	0
SOUTHBOUND	10	66	36	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
	WESTBOUND	1	0	2	0	1	0
EASTBOUND	1	0	2	1	0	0	4
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	82	N/A	780	N/A	44
EASTBOUND	45	N/A	679	679	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	346
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	112

EAST-WEST CRITICAL VOLUMES .....	825
NORTH-SOUTH CRITICAL VOLUMES .....	356
THE SUM OF CRITICAL VOLUMES .....	1181
NUMBER OF CRITICAL CLEARANCE INTERVALS ....	3
CMA VALUE .....	0.729
LEVEL OF SERVICE .....	C

\* Includes CMA value decreased due to ATCS Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 29, PICO BOULEVARD & PATRICIA AVENUE  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: EXISTING (2001)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	138	1904	28	0
EASTBOUND	44	1241	39	0
NORTHBOUND	81	56	115	0
SOUTHBOUND	10	202	43	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	44	N/A	640	640	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	252
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	255

EAST-WEST CRITICAL VOLUMES .....	778
NORTH-SOUTH CRITICAL VOLUMES .....	336
	-----
THE SUM OF CRITICAL VOLUMES .....	1114
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3
CMA VALUE .....	0.712
LEVEL OF SERVICE .....	C

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\* Includes CMA value decreased due to ATISAC Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 29, PICO BOULEVARD & PATRICIA AVENUE  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: FUTURE (2005) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	157	2012	29	0
EASTBOUND	46	1238	41	0
NORTHBOUND	85	59	123	0
SOUTHBOUND	10	211	45	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	46	N/A	640	640	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	267
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	266

EAST-WEST CRITICAL VOLUMES .....	797
NORTH-SOUTH CRITICAL VOLUMES .....	351
	-----
THE SUM OF CRITICAL VOLUMES .....	1148
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3
CMA VALUE .....	0.706
LEVEL OF SERVICE .....	C

\* Includes CMA value decreased due to ATCS Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 29, PICO BOULEVARD & PATRICIA AVENUE  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: FUTURE (2005) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	155	1984	29	0
EASTBOUND	46	1156	41	0
NORTHBOUND	85	59	116	0
SOUTHBOUND	10	211	45	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	46	N/A	598	598	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	260
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	266

EAST-WEST CRITICAL VOLUMES .....	753
NORTH-SOUTH CRITICAL VOLUMES .....	351
	-----
THE SUM OF CRITICAL VOLUMES .....	1104
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3
CMA VALUE .....	0.675
LEVEL OF SERVICE .....	B

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\* Includes CMA value decreased due to ATCS Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 29, PICO BOULEVARD & PATRICIA AVENUE  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: FUTURE (2005) WITH PROJECT PLUS MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	154	1979	29	0
EASTBOUND	46	1155	41	0
NORTHBOUND	85	59	116	0
SOUTHBOUND	10	211	45	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	46	N/A	598	598	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	260
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	266

EAST-WEST CRITICAL VOLUMES ..... 752  
 NORTH-SOUTH CRITICAL VOLUMES ..... 351  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1103  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3  
 CMA VALUE ..... 0.674  
 LEVEL OF SERVICE ..... B

\* Includes CMA value decreased due to ATCS Implementation.



CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 30, PICO BOULEVARD & BEVERLY GLEN BOULEVARD  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: EXISTING (2001)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	1352	234	0
EASTBOUND	352	1674	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	258	0	71	176

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	3	0	0	0	4
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	352	N/A	558	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	129	129	N/A	N/A	71	N/A

EAST-WEST CRITICAL VOLUMES .....	1145
NORTH-SOUTH CRITICAL VOLUMES .....	129
	-----
THE SUM OF CRITICAL VOLUMES .....	1274
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	2
CMA VALUE .....	0.779
LEVEL OF SERVICE .....	C

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\* Includes CMA value decreased due to ATSAC Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 30, PICO BOULEVARD & BEVERLY GLEN BOULEVARD  
 DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2005) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	1399	228	0
EASTBOUND	470	1844	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	254	0	47	235

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	3	0	0	0	4
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	470	N/A	615	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	127	127	N/A	N/A	47	N/A

EAST-WEST CRITICAL VOLUMES .....	1284
NORTH-SOUTH CRITICAL VOLUMES .....	127
	-----
THE SUM OF CRITICAL VOLUMES .....	1411
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	2
CMA VALUE .....	0.841
LEVEL OF SERVICE .....	D

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 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 30, PICO BOULEVARD & BEVERLY GLEN BOULEVARD  
 DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2005) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	1375	228	0
EASTBOUND	474	1853	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	254	0	43	237

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	3	0	0	0	4
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	474	N/A	618	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	127	127	N/A	N/A	43	N/A

EAST-WEST CRITICAL VOLUMES .....	1276
NORTH-SOUTH CRITICAL VOLUMES .....	127
THE SUM OF CRITICAL VOLUMES .....	1403
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	2
CMA VALUE .....	0.835
LEVEL OF SERVICE .....	D

\* Includes CMA value decreased due to ATCS Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 30, PICO BOULEVARD & BEVERLY GLEN BOULEVARD  
 DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2005) WITH PROJECT PLUS MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	1375	228	0
EASTBOUND	472	1849	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	254	0	44	236

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	3	0	0	0	4
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	472	N/A	616	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	127	127	N/A	N/A	44	N/A

EAST-WEST CRITICAL VOLUMES .....	1274
NORTH-SOUTH CRITICAL VOLUMES .....	127
	-----
THE SUM OF CRITICAL VOLUMES .....	1401
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	2
CMA VALUE .....	0.834
LEVEL OF SERVICE .....	D

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 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 30, PICO BOULEVARD & BEVERLY GLEN BOULEVARD  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: EXISTING (2001)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	1702	288	0
EASTBOUND	198	1244	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	343	0	246	99

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	3	0	0	0	4
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	198	N/A	415	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	196	N/A	N/A	N/A	196	196

EAST-WEST CRITICAL VOLUMES .....	861
NORTH-SOUTH CRITICAL VOLUMES .....	196
THE SUM OF CRITICAL VOLUMES .....	1057
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	2
CMA VALUE .....	0.635
LEVEL OF SERVICE .....	B

\* Includes CMA value decreased due to ATSAC Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 30, PICO BOULEVARD & BEVERLY GLEN BOULEVARD  
 DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2005) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	1756	264	0
EASTBOUND	252	1223	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	329	0	322	126

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	3	0	0	0	4
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	252	N/A	408	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	217	N/A	N/A	N/A	217	217

EAST-WEST CRITICAL VOLUMES .....	925
NORTH-SOUTH CRITICAL VOLUMES .....	217
	-----
THE SUM OF CRITICAL VOLUMES .....	1142
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	2
CMA VALUE .....	0.661
LEVEL OF SERVICE .....	B

\* Includes CMA value decreased due to ATCS Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 30, PICO BOULEVARD & BEVERLY GLEN BOULEVARD  
 DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2005) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	1728	264	0
EASTBOUND	225	1162	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	329	0	334	112

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	3	0	0	0	4
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	225	N/A	387	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	221	N/A	N/A	N/A	221	221

EAST-WEST CRITICAL VOLUMES .....	889
NORTH-SOUTH CRITICAL VOLUMES .....	221
THE SUM OF CRITICAL VOLUMES .....	1110
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	2
CMA VALUE .....	0.640
LEVEL OF SERVICE .....	B

\* Includes CMA value decreased due to ATCS Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 30, PICO BOULEVARD & BEVERLY GLEN BOULEVARD  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: FUTURE (2005) WITH PROJECT PLUS MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	1723	264	0
EASTBOUND	224	1161	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	329	0	333	112

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	0	0	2	1	0	0	3
EASTBOUND	1	0	3	0	0	0	4
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	662	662	N/A	N/A
EASTBOUND	224	N/A	387	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	221	N/A	N/A	N/A	221	221

EAST-WEST CRITICAL VOLUMES .....	886
NORTH-SOUTH CRITICAL VOLUMES .....	221
	-----
THE SUM OF CRITICAL VOLUMES .....	1107
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	2
CMA VALUE .....	0.638
LEVEL OF SERVICE .....	B

\* Includes CMA value decreased due to ATCS Implementation.



CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 33, PICO BOULEVARD & CENTURY PARK EAST  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: EXISTING (2001)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	22	1607	600	0
EASTBOUND	619	1037	0	0
NORTHBOUND	6	5	3	0
SOUTHBOUND	108	13	0	75

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	2	0	3	0	0	0	5
NORTHBOUND	0	1	0	1	0	0	2
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	340	N/A	346	N/A	N/A	N/A
NORTHBOUND	N/A	7	N/A	7	N/A	N/A
SOUTHBOUND	60	60	N/A	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES .....	1076
NORTH-SOUTH CRITICAL VOLUMES .....	67
	-----
THE SUM OF CRITICAL VOLUMES .....	1143
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3
CMA VALUE .....	0.732
LEVEL OF SERVICE .....	C

\* Includes CMA value decreased due to ATISAC Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 33, PICO BOULEVARD & CENTURY PARK EAST  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: FUTURE (2005) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	23	1820	707	45
EASTBOUND	651	1137	0	0
NORTHBOUND	6	5	3	0
SOUTHBOUND	166	14	0	75

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
	WESTBOUND	1	0	3	0	1	0
EASTBOUND	2	0	3	0	0	0	5
NORTHBOUND	0	1	0	1	0	0	2
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	23	N/A	607	N/A	707
EASTBOUND	358	N/A	379	N/A	N/A	N/A
NORTHBOUND	N/A	7	N/A	7	N/A	N/A
SOUTHBOUND	90	90	N/A	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES .....	1065
NORTH-SOUTH CRITICAL VOLUMES .....	97
	-----
THE SUM OF CRITICAL VOLUMES .....	1162
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3
CMA VALUE .....	0.715
LEVEL OF SERVICE .....	C

\* Includes CMA value decreased due to ATCS Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 33, PICO BOULEVARD & CENTURY PARK EAST  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: FUTURE (2005) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	23	1821	717	40
EASTBOUND	651	1137	0	0
NORTHBOUND	10	10	10	0
SOUTHBOUND	148	14	0	37

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
	WESTBOUND	1	0	3	0	1	0
EASTBOUND	2	0	3	0	0	0	5
NORTHBOUND	0	1	0	1	0	0	2
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	23	N/A	607	N/A	717
EASTBOUND	358	N/A	379	N/A	N/A	N/A
NORTHBOUND	N/A	15	N/A	15	N/A	N/A
SOUTHBOUND	81	81	N/A	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES ..... 1075  
 NORTH-SOUTH CRITICAL VOLUMES ..... 96  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1171  
 NUMBER OF CRITICAL CLEARANCE INTERVALS ..... 3  
 CMA VALUE ..... 0.722  
 LEVEL OF SERVICE ..... C

\* Includes CMA value decreased due to ATCS Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 33, PICO BOULEVARD & CENTURY PARK EAST  
 DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2005) WITH PROJECT PLUS MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	23	1821	715	40
EASTBOUND	651	1137	0	0
NORTHBOUND	10	10	10	0
SOUTHBOUND	147	14	0	36

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
	WESTBOUND	1	0	3	0	1	0
EASTBOUND	2	0	3	0	0	0	5
NORTHBOUND	0	1	0	1	0	0	2
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	23	N/A	607	N/A	715
EASTBOUND	358	N/A	379	N/A	N/A	N/A
NORTHBOUND	N/A	15	N/A	15	N/A	N/A
SOUTHBOUND	80	80	N/A	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES ..... 1073  
 NORTH-SOUTH CRITICAL VOLUMES ..... 95  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1168  
 NUMBER OF CRITICAL CLEARANCE INTERVALS ..... 3  
 CMA VALUE ..... 0.720  
 LEVEL OF SERVICE ..... C

\* Includes CMA value decreased due to ATCS Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 33, PICO BOULEVARD & CENTURY PARK EAST  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: EXISTING (2001)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	7	1226	178	0
EASTBOUND	172	1891	0	0
NORTHBOUND	7	19	12	0
SOUTHBOUND	548	3	407	84

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
	WESTBOUND	1	0	2	1	0	0
EASTBOUND	2	0	3	0	0	0	5
NORTHBOUND	0	1	0	1	0	0	2
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	7	N/A	468	468	N/A
EASTBOUND	95	N/A	630	N/A	N/A	N/A
NORTHBOUND	N/A	15	N/A	22	N/A	N/A
SOUTHBOUND	319	N/A	N/A	N/A	319	319

EAST-WEST CRITICAL VOLUMES .....	637
NORTH-SOUTH CRITICAL VOLUMES .....	341
THE SUM OF CRITICAL VOLUMES .....	978
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3
CMA VALUE .....	0.616
LEVEL OF SERVICE .....	B

\* Includes CMA value decreased due to ATSAC Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 33, PICO BOULEVARD & CENTURY PARK EAST  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: FUTURE (2005) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	7	1373	64	174
EASTBOUND	175	2151	0	0
NORTHBOUND	7	20	13	0
SOUTHBOUND	657	3	382	133

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	2	0	3	0	0	0	5
NORTHBOUND	0	1	0	1	0	0	2
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	96	N/A	717	N/A	N/A	N/A
NORTHBOUND	N/A	17	N/A	23	N/A	N/A
SOUTHBOUND	347	N/A	N/A	N/A	347	347

EAST-WEST CRITICAL VOLUMES .....	724
NORTH-SOUTH CRITICAL VOLUMES .....	370
THE SUM OF CRITICAL VOLUMES .....	1094
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3
CMA VALUE .....	0.668
LEVEL OF SERVICE .....	B

\* Includes CMA value decreased due to ATCS Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 33, PICO BOULEVARD & CENTURY PARK EAST  
 DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2005) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	10	1366	41	163
EASTBOUND	175	2151	0	0
NORTHBOUND	10	20	13	0
SOUTHBOUND	635	10	334	136

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	3	0	1	0	5
EASTBOUND	2	0	3	0	0	0	5
NORTHBOUND	0	1	0	1	0	0	2
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	10	N/A	455	N/A	41	N/A
EASTBOUND	96	N/A	717	N/A	N/A	N/A
NORTHBOUND	N/A	18	N/A	25	N/A	N/A
SOUTHBOUND	326	N/A	N/A	N/A	326	326

EAST-WEST CRITICAL VOLUMES .....	727
NORTH-SOUTH CRITICAL VOLUMES .....	351
	-----
THE SUM OF CRITICAL VOLUMES .....	1078
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3
CMA VALUE .....	0.656
LEVEL OF SERVICE .....	B

\* Includes CMA value decreased due to ATCS Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 33, PICO BOULEVARD & CENTURY PARK EAST  
 DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2005) WITH PROJECT PLUS MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	10	1366	41	162
EASTBOUND	175	2151	0	0
NORTHBOUND	10	20	13	0
SOUTHBOUND	632	10	326	136

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
	WESTBOUND	1	0	3	0	1	0
EASTBOUND	2	0	3	0	0	0	5
NORTHBOUND	0	1	0	1	0	0	2
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	10	N/A	455	N/A	41
EASTBOUND	96	N/A	717	N/A	N/A	N/A
NORTHBOUND	N/A	18	N/A	25	N/A	N/A
SOUTHBOUND	323	N/A	N/A	N/A	323	323

EAST-WEST CRITICAL VOLUMES .....	727
NORTH-SOUTH CRITICAL VOLUMES .....	348
THE SUM OF CRITICAL VOLUMES .....	1075
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3
CMA VALUE .....	0.654
LEVEL OF SERVICE .....	B

\* Includes CMA value decreased due to ATCS Implementation.



CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 34, MANNING AVENUE & MOTOR AVENUE  
 DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2001)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	75	319	220	0
EASTBOUND	21	178	68	0
NORTHBOUND	253	653	0	66
SOUTHBOUND	132	254	7	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	21	N/A	N/A	246	N/A	N/A
NORTHBOUND	253	N/A	653	N/A	0	N/A
SOUTHBOUND	132	N/A	N/A	261	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	560
NORTH-SOUTH CRITICAL VOLUMES .....	785
	-----
THE SUM OF CRITICAL VOLUMES .....	1345
NUMBER OF CRITICAL CLEARANCE INTERVALS ....	2
CMA VALUE .....	0.827
LEVEL OF SERVICE .....	D

\* Includes CMA value decreased due to ATSAC Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 34, MANNING AVENUE & MOTOR AVENUE  
 DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2005) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	80	355	297	0
EASTBOUND	22	191	72	0
NORTHBOUND	269	784	0	70
SOUTHBOUND	151	283	7	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
	WESTBOUND	1	0	0	1	0	0
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	80	N/A	N/A	652	N/A
EASTBOUND	22	N/A	N/A	263	N/A	N/A
NORTHBOUND	269	N/A	784	N/A	0	N/A
SOUTHBOUND	151	N/A	N/A	290	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 674  
 NORTH-SOUTH CRITICAL VOLUMES ..... 935  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1609  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2  
 CMA VALUE ..... 1.003  
 LEVEL OF SERVICE ..... F

\* Includes CMA value decreased due to ATSAC Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 34, MANNING AVENUE & MOTOR AVENUE  
 DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2005) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	80	356	304	0
EASTBOUND	22	189	72	0
NORTHBOUND	269	786	0	70
SOUTHBOUND	138	279	10	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	22	N/A	N/A	261	N/A	N/A
NORTHBOUND	269	N/A	786	N/A	0	N/A
SOUTHBOUND	138	N/A	N/A	289	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	682
NORTH-SOUTH CRITICAL VOLUMES .....	924
	-----
THE SUM OF CRITICAL VOLUMES .....	1606
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	2
CMA VALUE .....	1.001
LEVEL OF SERVICE .....	F

\* Includes CMA value decreased due to ATSAC Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 34, MANNING AVENUE & MOTOR AVENUE  
 DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2005) WITH PROJECT PLUS MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	80	356	301	0
EASTBOUND	22	189	72	0
NORTHBOUND	269	785	0	70
SOUTHBOUND	138	279	10	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	22	N/A	N/A	261	N/A	N/A
NORTHBOUND	269	N/A	785	N/A	0	N/A
SOUTHBOUND	138	N/A	N/A	289	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	679
NORTH-SOUTH CRITICAL VOLUMES .....	923
THE SUM OF CRITICAL VOLUMES .....	1602
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	2
CMA VALUE .....	0.998
LEVEL OF SERVICE .....	E

\* Includes CMA value decreased due to ATSAC Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 34, MANNING AVENUE & MOTOR AVENUE  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: EXISTING (2001)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	65	163	216	0
EASTBOUND	27	361	211	0
NORTHBOUND	60	469	68	32
SOUTHBOUND	189	665	7	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	27	N/A	N/A	572	N/A	N/A
NORTHBOUND	60	N/A	469	N/A	68	N/A
SOUTHBOUND	189	N/A	N/A	672	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	637
NORTH-SOUTH CRITICAL VOLUMES .....	732
THE SUM OF CRITICAL VOLUMES .....	1369
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	2
CMA VALUE .....	0.843
LEVEL OF SERVICE .....	D

\* Includes CMA value decreased due to ATSAC Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 34, MANNING AVENUE & MOTOR AVENUE  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: FUTURE (2005) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	69	178	251	0
EASTBOUND	29	400	224	0
NORTHBOUND	64	525	72	34
SOUTHBOUND	273	784	7	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	29	N/A	N/A	624	N/A	N/A
NORTHBOUND	64	N/A	525	N/A	72	N/A
SOUTHBOUND	273	N/A	N/A	791	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	693
NORTH-SOUTH CRITICAL VOLUMES .....	855
THE SUM OF CRITICAL VOLUMES .....	1548
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	2
CMA VALUE .....	0.962
LEVEL OF SERVICE .....	E

\* Includes CMA value decreased due to ATSAC Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 34, MANNING AVENUE & MOTOR AVENUE  
 DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2005) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	69	171	203	0
EASTBOUND	29	398	224	0
NORTHBOUND	64	511	72	34
SOUTHBOUND	258	780	10	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	0	1	0	0	2
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	69	N/A	N/A	374	N/A	N/A
EASTBOUND	29	N/A	N/A	622	N/A	N/A
NORTHBOUND	64	N/A	511	N/A	72	N/A
SOUTHBOUND	258	N/A	N/A	790	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	691
NORTH-SOUTH CRITICAL VOLUMES .....	854
THE SUM OF CRITICAL VOLUMES .....	1545
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	2
CMA VALUE .....	0.960
LEVEL OF SERVICE .....	E

\* Includes CMA value decreased due to ATSAC Implementation.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 34, MANNING AVENUE & MOTOR AVENUE  
 DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2005) WITH PROJECT PLUS MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	69	171	203	0
EASTBOUND	29	397	224	0
NORTHBOUND	64	511	72	34
SOUTHBOUND	255	779	10	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	0	1	0	0	2
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	69	N/A	N/A	374	N/A	N/A
EASTBOUND	29	N/A	N/A	621	N/A	N/A
NORTHBOUND	64	N/A	511	N/A	72	N/A
SOUTHBOUND	255	N/A	N/A	789	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	690
NORTH-SOUTH CRITICAL VOLUMES .....	853
THE SUM OF CRITICAL VOLUMES .....	1543
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	2
CMA VALUE .....	0.959
LEVEL OF SERVICE .....	E

\* Includes CMA value decreased due to ATSAC Implementation.



CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 37, I-405 SB OFF RAMP/TENNESSEE AVENUE & SAWTELLE BOULEVARD  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: EXISTING (2001)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	281	190	558	28
EASTBOUND	30	0	0	50
NORTHBOUND	199	811	0	0
SOUTHBOUND	0	493	31	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	1	1	0	3
EASTBOUND	1	0	0	0	1	0	2
NORTHBOUND	1	0	2	0	0	0	3
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	281	N/A	N/A	374	374	N/A
EASTBOUND	30	N/A	N/A	N/A	0	N/A
NORTHBOUND	199	N/A	406	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	262	262	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 404  
NORTH-SOUTH CRITICAL VOLUMES ..... 461

THE SUM OF CRITICAL VOLUMES ..... 865

NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*

CMA VALUE ..... 0.537

LEVEL OF SERVICE ..... A

\* Includes CMA value decreased due to ATSAC Implementation.

Eastbound and Westbound approaches have opposed signal phases.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 37, I-405 SB OFF RAMP/TENNESSEE AVENUE & SAWTELLE BOULEVARD  
 DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2005) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	330	199	708	28
EASTBOUND	31	0	0	52
NORTHBOUND	208	869	0	0
SOUTHBOUND	0	530	32	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
				SHARED	ONLY		
WESTBOUND	1	0	0	1	1	0	3
EASTBOUND	1	0	0	0	1	0	2
NORTHBOUND	1	0	2	0	0	0	3
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT		L/T/R SHARED
				SHARED	ONLY	
WESTBOUND	330	N/A	N/A	454	454	N/A
EASTBOUND	31	N/A	N/A	N/A	0	N/A
NORTHBOUND	208	N/A	434	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	281	281	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	485
NORTH-SOUTH CRITICAL VOLUMES .....	489
	-----
THE SUM OF CRITICAL VOLUMES .....	974
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3*
CMA VALUE .....	0.584
LEVEL OF SERVICE .....	A

\* Includes CMA value decreased due to ATCS Implementation.

Eastbound and Westbound approaches have opposed signal phases.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 37, I-405 SB OFF RAMP/TENNESSEE AVENUE & SAWTELLE BOULEVARD  
DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
CASE: FUTURE (2005) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	330	199	714	28
EASTBOUND	31	0	0	52
NORTHBOUND	208	869	0	0
SOUTHBOUND	0	530	32	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	0	0	1	0	2
NORTHBOUND	1	0	2	0	0	0	3
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	31	N/A	N/A	N/A	0	N/A
NORTHBOUND	208	N/A	434	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	281	281	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	487
NORTH-SOUTH CRITICAL VOLUMES .....	489
	-----
THE SUM OF CRITICAL VOLUMES .....	976
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3*
CMA VALUE .....	0.585
LEVEL OF SERVICE .....	A

\* Includes CMA value decreased due to ATCS Implementation.

Eastbound and Westbound approaches have opposed signal phases.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 37, I-405 SB OFF RAMP/TENNESSEE AVENUE & SAWTELLE BOULEVARD  
 DATE: 10/30/2002 INITIALS: CT PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2005) WITH PROJECT PLUS MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	330	199	712	28
EASTBOUND	31	0	0	52
NORTHBOUND	208	869	0	0
SOUTHBOUND	0	530	32	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	1	1	0	3
EASTBOUND	1	0	0	0	1	0	2
NORTHBOUND	1	0	2	0	0	0	3
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	330	N/A	N/A	456	456	N/A
EASTBOUND	31	N/A	N/A	N/A	0	N/A
NORTHBOUND	208	N/A	434	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	281	281	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	487
NORTH-SOUTH CRITICAL VOLUMES .....	489
THE SUM OF CRITICAL VOLUMES .....	976
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3*
CMA VALUE .....	0.585
LEVEL OF SERVICE .....	A

\* Includes CMA value decreased due to ATCS Implementation.

Eastbound and Westbound approaches have opposed signal phases.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 37, I-405 SB OFF RAMP/TENNESSEE AVENUE & SAWTELLE BOULEVARD  
 DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2001)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	323	46	2	152
EASTBOUND	172	0	236	60
NORTHBOUND	119	764	0	0
SOUTHBOUND	0	1093	40	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	0	0	1	0	2
NORTHBOUND	1	0	2	0	0	0	3
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	172	N/A	N/A	N/A	236	N/A
NORTHBOUND	119	N/A	382	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	566	566	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 559  
 NORTH-SOUTH CRITICAL VOLUMES ..... 685  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1244  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 0.803  
 LEVEL OF SERVICE ..... D

\* Includes CMA value decreased due to ATSAC Implementation.

Eastbound and Westbound approaches have opposed signal phases.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 37, I-405 SB OFF RAMP/TENNESSEE AVENUE & SAWTELLE BOULEVARD  
DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
CASE: FUTURE (2005) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	347	48	34	160
EASTBOUND	180	0	248	62
NORTHBOUND	124	823	0	0
SOUTHBOUND	0	1172	42	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	0	1	1	0	3
EASTBOUND	1	0	0	0	1	0	2
NORTHBOUND	1	0	2	0	0	0	3
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	347	N/A	48	N/A	34	N/A
EASTBOUND	180	N/A	N/A	N/A	248	N/A
NORTHBOUND	124	N/A	412	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	607	607	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 595  
 NORTH-SOUTH CRITICAL VOLUMES ..... 731  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1326  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 0.831  
 LEVEL OF SERVICE ..... D

\* Includes CMA value decreased due to ATCS Implementation.

Eastbound and Westbound approaches have opposed signal phases.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 37, I-405 SB OFF RAMP/TENNESSEE AVENUE & SAWTELLE BOULEVARD  
 DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2005) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	347	48	0	153
EASTBOUND	180	0	248	62
NORTHBOUND	124	823	0	0
SOUTHBOUND	0	1172	42	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	0	1	1	0	3
EASTBOUND	1	0	0	0	1	0	2
NORTHBOUND	1	0	2	0	0	0	3
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	347	N/A	48	N/A	0	N/A
EASTBOUND	180	N/A	N/A	N/A	248	N/A
NORTHBOUND	124	N/A	412	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	607	607	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 595  
 NORTH-SOUTH CRITICAL VOLUMES ..... 731  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1326  
 NUMBER OF CRITICAL CLEARANCE INTERVALS ..... 3\*  
 CMA VALUE ..... 0.831  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

Eastbound and Westbound approaches have opposed signal phases.

CRAIN AND ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 37, I-405 SB OFF RAMP/TENNESSEE AVENUE & SAWTELLE BOULEVARD  
 DATE: 10/30/2002 INITIALS: CT PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2005) WITH PROJECT PLUS MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	347	48	0	153
EASTBOUND	180	0	248	62
NORTHBOUND	124	823	0	0
SOUTHBOUND	0	1172	42	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	0	0	1	0	2
NORTHBOUND	1	0	2	0	0	0	3
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	180	N/A	N/A	N/A	248	N/A
NORTHBOUND	124	N/A	412	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	607	607	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	595
NORTH-SOUTH CRITICAL VOLUMES .....	731
	-----
THE SUM OF CRITICAL VOLUMES .....	1326
NUMBER OF CRITICAL CLEARANCE INTERVALS .....	3*
CMA VALUE .....	0.831
LEVEL OF SERVICE .....	D

\* Includes CMA value decreased due to ATCS Implementation.

Eastbound and Westbound approaches have opposed signal phases.