

Appendix C

Traffic Analysis

ULTRAMAR REFINERY TRIP GENERATION ESTIMATE

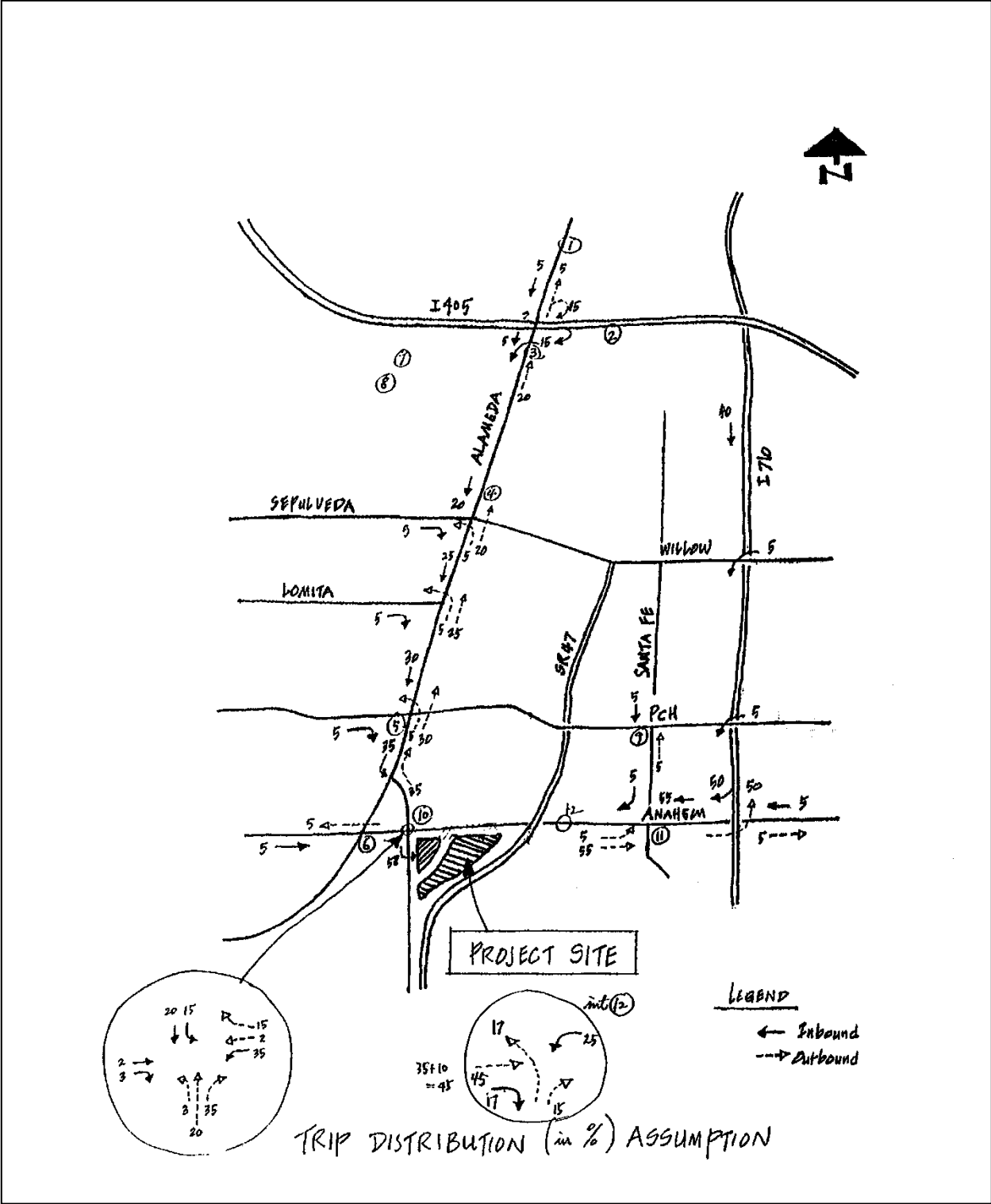
Scenario: **Construction Traffic Impact** (year 2001)

	<u>A.M. Peak Hour</u>		<u>P.M. Peak Hour</u>	
	<u>Inbound</u>	<u>Outbound</u>	<u>Inbound</u>	<u>Outbound</u>
200 worker vehicles/day (7a.m.-5:30p.m.)	0	0	0	200
6 pickup trucks/day	1	0	0	1
3 trucks/day x 3 PCE* = 9 PCE*	1	0	0	1
Total:	2	0	0	202

Note: PCE = Passenger Car Equivalent

Scenario: **Operational Phase Traffic Impact** (year 2003)

	<u>A.M. Peak Hour</u>		<u>P.M. Peak Hour</u>	
	<u>Inbound</u>	<u>Outbound</u>	<u>Inbound</u>	<u>Outbound</u>
8 worker vehicles/day (8 a.m.-5 p.m.)	8	0	0	8
10 trucks/day x 3 PCE* = 30 PCE*	4	0	0	4
Total:	12	0	0	12



**TRIP DISTRIBUTION ASSUMPTIONS
 ULTRAMAR REFINERY**

**ULTRAMAR REFINERY
CONSTRUCTION
TRAFFIC IMPACTS**

LEVEL OF SERVICE ANALYSIS

P.M. PEAK HOUR

Scenario: Construction Traffic Impacts
 Ambient Traffic Growth: 1 % per year

	Year 2000		Forecast Year 2001		Plus Proposed Project		+V/C
	LOS	DELAY V/C	LOS	DELAY V/C	LOS	DELAY V/C	
Alameda St and I-405 Ramps	A	5.0 0.382	A	5.0 0.385	A	5.0 0.390	+0.006
Alameda St and 223rd Ramp	A	5.0 0.327	A	5.0 0.330	A	5.0 0.330	+0.000
ICTF entry/I-405 Ramps and Wardlow/223rd St	A	5.0 0.549	A	5.0 0.554	A	5.0 0.565	+0.011
Alameda St and Sepulveda Blvd	A	5.0 0.432	A	5.0 0.436	A	5.0 0.447	+0.011
Alameda St and PCH	B	6.7 0.617	B	7.2 0.622	B	8.3 0.633	+0.011
Alameda St and Anaheim St	B	14.0 0.690	B	14.7 0.697	B/C	15.8 0.708	+0.011
Wilmington Ave and 223rd St	E	57.6 0.988	E	59.4 0.997	E	59.4 0.997	+0.000
Wilmington Ave and Sepulveda Blvd	A	5.0 0.595	B	5.1 0.601	A/B	5.1 0.601	+0.000
Santa Fe and PCH	B	14.3 0.693	B	15.0 0.700	B/C	15.5 0.705	+0.006
Henry Ford and Anaheim St.	A	5.0 0.581	A	5.0 0.587	A	5.0 0.591	+0.005
Santa Fe and Anaheim St.	A	5.0 0.535	A	5.0 0.540	A/B	5.1 0.601	+0.061
9th St./Ith St. and Anaheim St.	A	5.0 0.505	A	5.0 0.510	A	5.0 0.547	+0.038

Notes:

v/c = volume to capacity ratio (capacity utilization ratio)

delay = average stopped delay in seconds per vehicle

LOS = Level of Service

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	18	0	0	0	0	0	0	0	0	0	0	0	18
NR	18	0	0	0	0	0	0	0	0	0	0	0	18
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	36	0	0	0	0	0	0	0	0	0	0	0	36

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Construction Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2001		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	2.00	3200	381	0.119	385	0.120	403	0.126	403	0.126
RIGHT	1.00	1600	91	0.057	92	0.057	110	0.069	110	0.069
SB LEFT	1.00	1600	108	0.068	109	0.068	109	0.068	109	0.068
THRU	3.00	4800	354	0.074	358	0.074	358	0.074	358	0.074
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
WB LEFT	1.00	1600	232	0.145	234	0.146	234	0.146	234	0.146
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	106	0.066	107	0.067	107	0.067	107	0.067
Intersection Volume			1272		1285		1320		1320	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.382		0.385		0.390		0.390	
Stopped Delay (sec/veh)			5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)			A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	0	0	0	0	0	0	0	0	0	0	0	0	0

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Construction Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2001		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	3.00	4800	472	0.175	477	0.177	477	0.177	477	0.177
RIGHT	0.00	0	367	0.000	371	0.000	371	0.000	371	0.000
SB LEFT	1.00	1600	86	0.054	87	0.054	87	0.054	87	0.054
THRU	3.00	4800	480	0.100	485	0.101	485	0.101	485	0.101
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
WB LEFT	1.00	1600	78	0.049	79	0.049	79	0.049	79	0.049
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	103	0.064	104	0.065	104	0.065	104	0.065
Intersection Volume			1586		1602		1602		1602	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.327		0.330		0.330		0.330	
Stopped Delay (sec/veh)			5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)			A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	18	0	0	0	0	0	0	0	0	0	0	0	18
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	18	0	0	0	0	0	0	0	0	0	0	0	18

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Construction Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2001		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	1.00	1600	0	0.002	0	0.002	18	0.013	18	0.013
RIGHT	0.00	0	3	0.000	3	0.000	3	0.000	3	0.000
SB LEFT	1.00	1600	126	0.079	127	0.080	127	0.080	127	0.080
THRU	1.00	1600	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	33	0.021	33	0.021	33	0.021	33	0.021
EB LEFT	2.00	3120	706	0.226	713	0.229	713	0.229	713	0.229
THRU	2.00	3200	1337	0.418	1350	0.422	1350	0.422	1350	0.422
RIGHT	1.00	1600	1	0.001	1	0.001	1	0.001	1	0.001
WB LEFT	1.00	1600	1	0.001	1	0.001	1	0.001	1	0.001
THRU	2.00	3200	474	0.148	479	0.150	479	0.150	479	0.150
RIGHT	1.00	1600	285	0.178	288	0.180	288	0.180	288	0.180
Intersection Volume			2966		2996		3013		3013	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.549		0.554		0.565		0.565
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0
LEVEL OF SERVICE (LOS)				A		A		A		A

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	18	0	0	0	0	0	0	0	0	0	0	0	18
NT	71	0	0	0	0	0	0	0	0	0	0	0	71
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	89	0	0	0	0	0	0	0	0	0	0	0	89

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Construction Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2001		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	119	0.074	120	0.075	138	0.086	138	0.086
THRU	3.00	4800	422	0.120	426	0.121	497	0.136	497	0.136
RIGHT	0.00	0	154	0.000	156	0.000	156	0.000	156	0.000
SB LEFT	1.00	1600	6	0.004	6	0.004	6	0.004	6	0.004
THRU	2.00	3200	418	0.131	422	0.132	422	0.132	422	0.132
RIGHT	1.00	1600	122	0.076	123	0.077	123	0.077	123	0.077
EB LEFT	1.00	1600	128	0.080	129	0.081	129	0.081	129	0.081
THRU	2.00	3200	249	0.117	251	0.118	251	0.118	251	0.118
RIGHT	0.00	0	125	0.000	126	0.000	126	0.000	126	0.000
WB LEFT	1.00	1600	45	0.028	45	0.028	45	0.028	45	0.028
THRU	2.00	3200	311	0.097	314	0.098	314	0.098	314	0.098
RIGHT	1.00	1600	86	0.054	87	0.054	87	0.054	87	0.054
Intersection Volume			2185		2207		2296		2296	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.432		0.436		0.447		0.447	
Stopped Delay (sec/veh)			5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)			A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	18	0	0	0	0	0	0	0	0	0	0	0	18
NT	107	0	0	0	0	0	0	0	0	0	0	0	107
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	124	0	0	0	0	0	0	0	0	0	0	0	124

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Construction Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2001		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	128	0.080	129	0.081	147	0.092	147	0.092
THRU	2.00	3200	129	0.040	130	0.041	237	0.074	237	0.074
RIGHT	1.00	1600	137	0.086	138	0.086	138	0.086	138	0.086
SB LEFT	1.00	1600	68	0.043	69	0.043	69	0.043	69	0.043
THRU	2.00	3200	119	0.037	120	0.038	120	0.038	120	0.038
RIGHT	1.00	1600	132	0.083	133	0.083	133	0.083	133	0.083
EB LEFT	1.00	1600	111	0.069	112	0.070	112	0.070	112	0.070
THRU	2.00	3200	1168	0.395	1180	0.399	1180	0.399	1180	0.399
RIGHT	0.00	0	96	0.000	97	0.000	97	0.000	97	0.000
WB LEFT	1.00	1600	87	0.054	88	0.055	88	0.055	88	0.055
THRU	2.00	3200	1004	0.314	1014	0.317	1014	0.317	1014	0.317
RIGHT	1.00	1600	85	0.053	86	0.054	86	0.054	86	0.054
Intersection Volume			3264		3297		3421		3421	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.617		0.622		0.633		0.633
Stopped Delay (sec/veh)				6.7		7.2		8.3		8.3
LEVEL OF SERVICE (LOS)				B		B		B		B

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	18	0	0	0	0	0	0	0	0	0	0	0	18
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	18	0	0	0	0	0	0	0	0	0	0	0	18

INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Construction Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2001		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	19	0.012	19	0.012	19	0.012	19	0.012
THRU	2.00	3200	137	0.043	138	0.043	138	0.043	138	0.043
RIGHT	1.00	1600	536	0.335	541	0.338	541	0.338	541	0.338
SB LEFT	1.00	1600	6	0.004	6	0.004	6	0.004	6	0.004
THRU	2.00	3200	91	0.028	92	0.029	92	0.029	92	0.029
RIGHT	1.00	1600	116	0.072	117	0.073	117	0.073	117	0.073
EB LEFT	1.00	1600	73	0.046	74	0.046	74	0.046	74	0.046
THRU	2.00	3200	899	0.281	908	0.284	908	0.284	908	0.284
RIGHT	1.00	1600	8	0.005	8	0.005	8	0.005	8	0.005
WB LEFT	2.00	3120	244	0.078	246	0.079	246	0.079	246	0.079
THRU	1.00	1600	877	0.548	886	0.554	904	0.565	904	0.565
RIGHT	1.00	1600	32	0.020	32	0.020	32	0.020	32	0.020
Intersection Volume			3038		3068		3086		3086	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.690		0.697		0.708		0.708	
Stopped Delay (sec/veh)			14.0		14.7		15.8		15.8	
LEVEL OF SERVICE (LOS)			B		B		C		C	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Construction Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2001		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	44	0.027	44	0.028	44	0.028	44	0.028
THRU	2.00	3200	1108	0.346	1119	0.350	1119	0.350	1119	0.350
RIGHT	1.00	1600	567	0.354	573	0.358	573	0.358	573	0.358
SB LEFT	1.00	1600	209	0.131	211	0.132	211	0.132	211	0.132
THRU	2.00	3200	1026	0.321	1036	0.324	1036	0.324	1036	0.324
RIGHT	1.00	1600	372	0.233	376	0.235	376	0.235	376	0.235
EB LEFT	1.00	1600	466	0.291	471	0.294	471	0.294	471	0.294
THRU	2.00	3200	1121	0.350	1132	0.354	1132	0.354	1132	0.354
RIGHT	1.00	1600	14	0.009	14	0.009	14	0.009	14	0.009
WB LEFT	1.00	1600	177	0.111	179	0.112	179	0.112	179	0.112
THRU	2.00	3200	317	0.099	320	0.100	320	0.100	320	0.100
RIGHT	1.00	1600	172	0.108	174	0.109	174	0.109	174	0.109
Intersection Volume			5593		5649		5649		5649	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.988		0.997		0.997		0.997	
Stopped Delay (sec/veh)			57.6		59.4		59.4		59.4	
LEVEL OF SERVICE (LOS)			E		E		E		E	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Construction Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2001		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	29	0.018	29	0.018	29	0.018	29	0.018
THRU	2.00	3200	285	0.089	288	0.090	288	0.090	288	0.090
RIGHT	1.00	1600	70	0.044	71	0.044	71	0.044	71	0.044
SB LEFT	1.00	1600	94	0.059	95	0.059	95	0.059	95	0.059
THRU	2.00	3200	532	0.166	537	0.168	537	0.168	537	0.168
RIGHT	1.00	1600	294	0.184	297	0.186	297	0.186	297	0.186
EB LEFT	1.00	1600	228	0.142	230	0.144	230	0.144	230	0.144
THRU	2.00	3200	993	0.310	1003	0.313	1003	0.313	1003	0.313
RIGHT	1.00	(Free)	19		19		19		19	
WB LEFT	1.00	1600	81	0.051	82	0.051	82	0.051	82	0.051
THRU	2.00	3200	336	0.105	339	0.106	339	0.106	339	0.106
RIGHT	1.00	1600	73	0.046	74	0.046	74	0.046	74	0.046
Intersection Volume			3034		3064		3064		3064	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.595		0.601		0.601		0.601
Stopped Delay (sec/veh)				5.0		5.1		5.1		5.1
LEVEL OF SERVICE (LOS)				A		B		B		B

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	18	0	0	0	0	0	0	0	0	0	0	0	18
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	18	0	0	0	0	0	0	0	0	0	0	0	18

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Construction Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2001		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	119	0.074	120	0.075	120	0.075	120	0.075
THRU	2.00	3200	329	0.103	332	0.104	350	0.109	350	0.109
RIGHT	1.00	1600	134	0.084	135	0.085	135	0.085	135	0.085
SB LEFT	1.00	1600	137	0.086	138	0.086	138	0.086	138	0.086
THRU	2.00	3200	269	0.084	272	0.085	272	0.085	272	0.085
RIGHT	1.00	1600	73	0.046	74	0.046	74	0.046	74	0.046
EB LEFT	1.00	1600	134	0.084	135	0.085	135	0.085	135	0.085
THRU	2.00	3200	1293	0.404	1306	0.408	1306	0.408	1306	0.408
RIGHT	1.00	1600	90	0.056	91	0.057	91	0.057	91	0.057
WB LEFT	1.00	1600	81	0.051	82	0.051	82	0.051	82	0.051
THRU	2.00	3200	1019	0.318	1029	0.322	1029	0.322	1029	0.322
RIGHT	1.00	1600	108	0.068	109	0.068	109	0.068	109	0.068
Intersection Volume			3786		3824		3842		3842	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.693		0.700		0.705		0.705	
Stopped Delay (sec/veh)			14.3		15.0		15.5		15.5	
LEVEL OF SERVICE (LOS)			B		B		C		C	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	11	0	0	0	0	0	0	0	0	0	0	0	11
NT	71	0	0	0	0	0	0	0	0	0	0	0	71
NR	124	0	0	0	0	0	0	0	0	0	0	0	124
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	7	0	0	0	0	0	0	0	0	0	0	0	7
WR	53	0	0	0	0	0	0	0	0	0	0	0	53
Sum	266	0	0	0	0	0	0	0	0	0	0	0	266

INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Construction Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2001		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.50	2360	277	0.117	280	0.119	290	0.123	290	0.123
THRU	1.50	2400	113	0.080	114	0.081	185	0.163	185	0.163
RIGHT	0.00	0	80	0.000	81	0.000	205	0.000	205	0.000
SB LEFT	0.00	0	95	0.000	96	0.000	96	0.000	96	0.000
THRU	1.00	1600	22	0.073	22	0.074	22	0.074	22	0.074
RIGHT	1.00	1600	15	0.009	15	0.009	15	0.009	15	0.009
EB LEFT	1.00	1600	33	0.021	33	0.021	33	0.021	33	0.021
THRU	2.00	3200	991	0.310	1001	0.313	1001	0.313	1001	0.313
RIGHT	1.00	(Free)	70		71		71		71	
WB LEFT	1.00	1600	50	0.031	51	0.032	51	0.032	51	0.032
THRU	2.00	3200	925	0.289	934	0.292	941	0.294	941	0.294
RIGHT	1.00	1600	172	0.108	174	0.109	227	0.142	227	0.142
Intersection Volume			2843		2871		3138		3138	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.581		0.587		0.591		0.591	
Stopped Delay (sec/veh)			5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)			A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	18	0	0	0	0	0	0	0	0	0	0	0	18
ET	195	0	0	0	0	0	0	0	0	0	0	0	195
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	213	0	0	0	0	0	0	0	0	0	0	0	213

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Construction Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2001		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	23	0.014	23	0.015	23	0.015	23	0.015
THRU	2.00	3200	137	0.058	138	0.058	138	0.058	138	0.058
RIGHT	0.00	0	47	0.000	47	0.000	47	0.000	47	0.000
SB LEFT	1.00	1600	187	0.117	189	0.118	189	0.118	189	0.118
THRU	2.00	3200	129	0.077	130	0.078	130	0.078	130	0.078
RIGHT	0.00	0	118	0.000	119	0.000	119	0.000	119	0.000
EB LEFT	1.00	1600	78	0.049	79	0.049	97	0.060	97	0.060
THRU	2.00	3200	927	0.296	936	0.299	1132	0.360	1132	0.360
RIGHT	0.00	0	21	0.000	21	0.000	21	0.000	21	0.000
WB LEFT	1.00	1600	23	0.014	23	0.015	23	0.015	23	0.015
THRU	3.00	4800	729	0.152	736	0.153	736	0.153	736	0.153
RIGHT	1.00	1600	157	0.098	159	0.099	159	0.099	159	0.099
Intersection Volume			2576		2602		2815		2815	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.535		0.540		0.601		0.601
Stopped Delay (sec/veh)				5.0		5.0		5.1		5.1
LEVEL OF SERVICE (LOS)				A		A		B		B

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	60	0	0	0	0	0	0	0	0	0	0	0	60
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	53	0	0	0	0	0	0	0	0	0	0	0	53
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	160	0	0	0	0	0	0	0	0	0	0	0	160
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	273	0	0	0	0	0	0	0	0	0	0	0	273

INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Construction Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2001		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	272	0.170	275	0.172	335	0.209	335	0.209
THRU	2.00	3200	222	0.069	224	0.070	224	0.070	224	0.070
RIGHT	1.00	(Free)	59		60		113		113	
SB LEFT	1.00	1600	34	0.021	34	0.021	34	0.021	34	0.021
THRU	2.00	3200	33	0.010	33	0.010	33	0.010	33	0.010
RIGHT	1.00	(Free)	19		19		19		19	
EB LEFT	1.00	1600	23	0.014	23	0.015	23	0.015	23	0.015
THRU	3.00	4800	955	0.199	965	0.201	1124	0.234	1124	0.234
RIGHT	1.00	1600	229	0.143	231	0.145	231	0.145	231	0.145
WB LEFT	1.00	1600	8	0.005	8	0.005	8	0.005	8	0.005
THRU	2.00	3200	833	0.260	841	0.263	841	0.263	841	0.263
RIGHT	1.00	1600	150	0.094	152	0.095	152	0.095	152	0.095
Intersection Volume			2837		2865		3139		3139	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.505		0.510		0.547		0.547
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0
LEVEL OF SERVICE (LOS)				A		A		A		A

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

**ULTRAMAR REFINERY
OPERATIONAL PHASE
TRAFFIC IMPACTS**

LEVEL OF SERVICE ANALYSIS

A.M. PEAK HOUR

Scenario: Operational Phase Traffic Impacts
 Ambient Traffic Growth: 1 % per year

	Year 2000		Forecast Year 2003		Plus Proposed Project		+V/C
	LOS	DELAY V/C	LOS	DELAY V/C	LOS	DELAY V/C	
Alameda St and I-405 Ramps	A	5.0 0.362	A	5.0 0.372	A	5.0 0.372	+0.000
Alameda St and 223rd Ramp	A	5.0 0.294	A	5.0 0.301	A	5.0 0.301	+0.000
ICTF entry/I-405 Ramps and Wardlow/223rd St	A	5.0 0.497	A	5.0 0.510	A	5.0 0.510	+0.000
Alameda St and Sepulveda Blvd	A	5.0 0.395	A	5.0 0.405	A	5.0 0.406	+0.001
Alameda St and PCH	A	5.0 0.497	A	5.0 0.511	A	5.0 0.512	+0.001
Alameda St and Anaheim St	B	7.3 0.623	B	9.0 0.640	B	9.0 0.640	+0.000
Wilmington Ave and 223rd St	E	44.7 0.924	E	50.0 0.950	E	50.0 0.950	+0.000
Wilmington Ave and Sepulveda Blvd	A	5.0 0.563	A	5.0 0.579	A	5.0 0.579	+0.000
Santa Fe and PCH	B	9.8 0.648	B	11.6 0.666	B	11.7 0.667	+0.000
Henry Ford and Anaheim St.	A	5.0 0.513	A	5.0 0.527	A	5.0 0.529	+0.003
Santa Fe and Anaheim St.	A	5.0 0.425	A	5.0 0.436	A	5.0 0.436	+0.000
9th St./Ith St. and Anaheim St.	A	5.0 0.506	A	5.0 0.519	A	5.0 0.519	+0.000

Notes:

v/c = volume to capacity ratio (capacity utilization ratio)

delay = average stopped delay in seconds per vehicle

LOS = Level of Service

A.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	1	0	0	0	0	0	0	0	0	0	0	0	1
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	1	0	0	0	0	0	0	0	0	0	0	0	1

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	2.00	3200	331	0.103	341	0.107	341	0.107	341	0.107
RIGHT	1.00	1600	17	0.011	18	0.011	18	0.011	18	0.011
SB LEFT	1.00	1600	60	0.038	62	0.039	62	0.039	62	0.039
THRU	3.00	4800	380	0.079	391	0.082	392	0.082	392	0.082
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
WB LEFT	1.00	1600	274	0.171	282	0.176	282	0.176	282	0.176
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	261	0.163	269	0.168	269	0.168	269	0.168
Intersection Volume			1323		1363		1363		1363	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.362		0.372		0.372		0.372
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0
LEVEL OF SERVICE (LOS)				A		A		A		A

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

A.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	1	0	0	0	0	0	0	0	0	0	0	0	1
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	1	0	0	0	0	0	0	0	0	0	0	0	1

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	3.00	4800	247	0.089	254	0.091	254	0.091	254	0.091
RIGHT	0.00	0	178	0.000	183	0.000	183	0.000	183	0.000
SB LEFT	1.00	1600	111	0.069	114	0.071	114	0.071	114	0.071
THRU	3.00	4800	513	0.107	528	0.110	529	0.110	529	0.110
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
WB LEFT	1.00	1600	137	0.086	141	0.088	141	0.088	141	0.088
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	128	0.080	132	0.082	132	0.082	132	0.082
Intersection Volume			1314		1353		1354		1354	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.294		0.301		0.301		0.301
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0
LEVEL OF SERVICE (LOS)				A		A		A		A

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

A.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	1	0	0	0	0	0	0	0	0	0	0	0	1
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	1	0	0	0	0	0	0	0	0	0	0	0	1
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	1	0	0	0	0	0	0	0	0	0	0	0	1

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	0.00	0	1	0.000	1	0.000	1	0.000	1	0.000
THRU	1.00	1600	0	0.005	0	0.005	0	0.005	0	0.005
RIGHT	0.00	0	7	0.000	7	0.000	7	0.000	7	0.000
SB LEFT	1.00	1600	63	0.039	65	0.041	65	0.041	65	0.041
THRU	1.00	1600	0	0.000	0	0.000	1	0.000	1	0.000
RIGHT	1.00	1600	112	0.070	115	0.072	115	0.072	115	0.072
EB LEFT	2.00	3120	337	0.108	347	0.111	347	0.111	347	0.111
THRU	2.00	3200	478	0.149	492	0.154	492	0.154	492	0.154
RIGHT	1.00	1600	2	0.001	2	0.001	2	0.001	2	0.001
WB LEFT	1.00	1600	8	0.005	8	0.005	9	0.006	9	0.006
THRU	2.00	3200	942	0.294	970	0.303	970	0.303	970	0.303
RIGHT	1.00	1600	148	0.093	152	0.095	152	0.095	152	0.095
Intersection Volume			2098		2161		2162		2162	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.497		0.510		0.510		0.510	
Stopped Delay (sec/veh)			5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)			A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

A.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	2	0	0	0	0	0	0	0	0	0	0	0	2
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	1	0	0	0	0	0	0	0	0	0	0	0	1
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	3	0	0	0	0	0	0	0	0	0	0	0	3

INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	120	0.075	124	0.077	124	0.077	124	0.077
THRU	3.00	4800	443	0.120	456	0.123	456	0.123	456	0.123
RIGHT	0.00	0	131	0.000	135	0.000	135	0.000	135	0.000
SB LEFT	1.00	1600	4	0.002	4	0.003	4	0.003	4	0.003
THRU	2.00	3200	388	0.121	400	0.125	402	0.126	402	0.126
RIGHT	1.00	1600	112	0.070	115	0.072	115	0.072	115	0.072
EB LEFT	1.00	1600	106	0.066	109	0.068	109	0.068	109	0.068
THRU	2.00	3200	282	0.122	290	0.125	290	0.125	290	0.125
RIGHT	0.00	0	107	0.000	110	0.000	111	0.000	111	0.000
WB LEFT	1.00	1600	43	0.027	44	0.028	44	0.028	44	0.028
THRU	2.00	3200	240	0.075	247	0.077	247	0.077	247	0.077
RIGHT	1.00	1600	71	0.044	73	0.046	73	0.046	73	0.046
Intersection Volume			2047		2108		2111		2111	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.395		0.405		0.406		0.406	
Stopped Delay (sec/veh)			5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)			A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

A.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	4	0	0	0	0	0	0	0	0	0	0	0	4
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	1	0	0	0	0	0	0	0	0	0	0	0	1
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	4	0	0	0	0	0	0	0	0	0	0	0	4

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	43	0.027	44	0.028	44	0.028	44	0.028
THRU	2.00	3200	52	0.016	54	0.017	54	0.017	54	0.017
RIGHT	1.00	1600	54	0.034	56	0.035	56	0.035	56	0.035
SB LEFT	1.00	1600	52	0.032	54	0.033	54	0.033	54	0.033
THRU	2.00	3200	88	0.027	91	0.028	94	0.029	94	0.029
RIGHT	1.00	1600	68	0.043	70	0.044	70	0.044	70	0.044
EB LEFT	1.00	1600	126	0.079	130	0.081	130	0.081	130	0.081
THRU	2.00	3200	738	0.256	760	0.263	760	0.263	760	0.263
RIGHT	0.00	0	80	0.000	82	0.000	83	0.000	83	0.000
WB LEFT	1.00	1600	96	0.060	99	0.062	99	0.062	99	0.062
THRU	2.00	3200	1005	0.314	1035	0.323	1035	0.323	1035	0.323
RIGHT	1.00	1600	42	0.026	43	0.027	43	0.027	43	0.027
Intersection Volume			2444		2517		2522		2522	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.497		0.511		0.512		0.512
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0
LEVEL OF SERVICE (LOS)				A		A		A		A

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

A.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	1	0	0	0	0	0	0	0	0	0	0	0	1
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	1	0	0	0	0	0	0	0	0	0	0	0	1

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	16	0.010	16	0.010	16	0.010	16	0.010
THRU	2.00	3200	92	0.029	95	0.030	95	0.030	95	0.030
RIGHT	1.00	1600	380	0.237	391	0.245	391	0.245	391	0.245
SB LEFT	1.00	1600	5	0.003	5	0.003	5	0.003	5	0.003
THRU	2.00	3200	159	0.050	164	0.051	164	0.051	164	0.051
RIGHT	1.00	1600	54	0.034	56	0.035	56	0.035	56	0.035
EB LEFT	1.00	1600	92	0.058	95	0.059	95	0.059	95	0.059
THRU	2.00	3200	1028	0.321	1059	0.331	1059	0.331	1059	0.331
RIGHT	1.00	1600	14	0.009	14	0.009	14	0.009	14	0.009
WB LEFT	2.00	3120	313	0.100	322	0.103	322	0.103	322	0.103
THRU	1.00	1600	729	0.456	751	0.469	751	0.469	751	0.469
RIGHT	1.00	1600	25	0.016	26	0.016	26	0.016	26	0.016
Intersection Volume			2907		2994		2995		2995	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.623		0.640		0.640		0.640	
Stopped Delay (sec/veh)			7.3		9.0		9.0		9.0	
LEVEL OF SERVICE (LOS)			B		B		B		B	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

A.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	0	0	0	0	0	0	0	0	0	0	0	0	0

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	14	0.009	14	0.009	14	0.009	14	0.009
THRU	2.00	3200	885	0.277	912	0.285	912	0.285	912	0.285
RIGHT	1.00	1600	339	0.212	349	0.218	349	0.218	349	0.218
SB LEFT	1.00	1600	161	0.101	166	0.104	166	0.104	166	0.104
THRU	2.00	3200	1158	0.362	1193	0.373	1193	0.373	1193	0.373
RIGHT	1.00	1600	434	0.271	447	0.279	447	0.279	447	0.279
EB LEFT	1.00	1600	483	0.302	497	0.311	497	0.311	497	0.311
THRU	2.00	3200	495	0.155	510	0.159	510	0.159	510	0.159
RIGHT	1.00	1600	26	0.016	27	0.017	27	0.017	27	0.017
WB LEFT	1.00	1600	307	0.192	316	0.198	316	0.198	316	0.198
THRU	2.00	3200	623	0.195	642	0.201	642	0.201	642	0.201
RIGHT	1.00	1600	121	0.076	125	0.078	125	0.078	125	0.078
Intersection Volume			5046		5197		5197		5197	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.924		0.950		0.950		0.950	
Stopped Delay (sec/veh)			44.7		50.0		50.0		50.0	
LEVEL OF SERVICE (LOS)			E		E		E		E	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

A.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	0	0	0	0	0	0	0	0	0	0	0	0	0

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	20	0.013	21	0.013	21	0.013	21	0.013
THRU	2.00	3200	537	0.168	553	0.173	553	0.173	553	0.173
RIGHT	1.00	1600	62	0.039	64	0.040	64	0.040	64	0.040
SB LEFT	1.00	1600	53	0.033	55	0.034	55	0.034	55	0.034
THRU	2.00	3200	325	0.102	335	0.105	335	0.105	335	0.105
RIGHT	1.00	1600	169	0.106	174	0.109	174	0.109	174	0.109
EB LEFT	1.00	1600	347	0.217	357	0.223	357	0.223	357	0.223
THRU	2.00	3200	197	0.062	203	0.063	203	0.063	203	0.063
RIGHT	1.00	(Free)	31		32		32		32	
WB LEFT	1.00	1600	85	0.053	88	0.055	88	0.055	88	0.055
THRU	2.00	3200	305	0.095	314	0.098	314	0.098	314	0.098
RIGHT	1.00	1600	70	0.044	72	0.045	72	0.045	72	0.045
Intersection Volume			2201		2267		2267		2267	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.563		0.579		0.579		0.579
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0
LEVEL OF SERVICE (LOS)				A		A		A		A

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

A.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	1	0	0	0	0	0	0	0	0	0	0	0	1
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	1	0	0	0	0	0	0	0	0	0	0	0	1

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	124	0.078	128	0.080	128	0.080	128	0.080
THRU	2.00	3200	260	0.081	268	0.084	268	0.084	268	0.084
RIGHT	1.00	1600	68	0.043	70	0.044	70	0.044	70	0.044
SB LEFT	1.00	1600	133	0.083	137	0.086	137	0.086	137	0.086
THRU	2.00	3200	339	0.106	349	0.109	350	0.109	350	0.109
RIGHT	1.00	1600	124	0.078	128	0.080	128	0.080	128	0.080
EB LEFT	1.00	1600	68	0.043	70	0.044	70	0.044	70	0.044
THRU	2.00	3200	689	0.215	710	0.222	710	0.222	710	0.222
RIGHT	1.00	1600	94	0.059	97	0.061	97	0.061	97	0.061
WB LEFT	1.00	1600	79	0.049	81	0.051	81	0.051	81	0.051
THRU	2.00	3200	1192	0.373	1228	0.384	1228	0.384	1228	0.384
RIGHT	1.00	1600	212	0.132	218	0.136	218	0.136	218	0.136
Intersection Volume			3382		3483		3484		3484	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.648		0.666		0.667		0.667	
Stopped Delay (sec/veh)			9.8		11.6		11.7		11.7	
LEVEL OF SERVICE (LOS)			B		B		B		B	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

A.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	2	0	0	0	0	0	0	0	0	0	0	0	2
ST	2	0	0	0	0	0	0	0	0	0	0	0	2
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	4	0	0	0	0	0	0	0	0	0	0	0	4
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	9	0	0	0	0	0	0	0	0	0	0	0	9

INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.50	2360	142	0.060	146	0.062	146	0.062	146	0.062
THRU	1.50	2400	54	0.046	56	0.048	56	0.048	56	0.048
RIGHT	0.00	0	57	0.000	59	0.000	59	0.000	59	0.000
SB LEFT	0.00	0	45	0.000	46	0.000	48	0.000	48	0.000
THRU	1.00	1600	75	0.075	77	0.077	80	0.080	80	0.080
RIGHT	1.00	1600	12	0.007	12	0.008	12	0.008	12	0.008
EB LEFT	1.00	1600	12	0.007	12	0.008	12	0.008	12	0.008
THRU	2.00	3200	826	0.258	851	0.266	851	0.266	851	0.266
RIGHT	1.00	(Free)	419		432		432		432	
WB LEFT	1.00	1600	75	0.047	77	0.048	81	0.051	81	0.051
THRU	2.00	3200	1025	0.320	1056	0.330	1056	0.330	1056	0.330
RIGHT	1.00	1600	93	0.058	96	0.060	96	0.060	96	0.060
Intersection Volume			2835		2920		2929		2929	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.513		0.527		0.529		0.529
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0
LEVEL OF SERVICE (LOS)				A		A		A		A

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

A.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	1	0	0	0	0	0	0	0	0	0	0	0	1
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	7	0	0	0	0	0	0	0	0	0	0	0	7
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	7	0	0	0	0	0	0	0	0	0	0	0	7

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	30	0.019	31	0.019	31	0.019	31	0.019
THRU	2.00	3200	147	0.053	151	0.055	151	0.055	151	0.055
RIGHT	0.00	0	23	0.000	24	0.000	24	0.000	24	0.000
SB LEFT	1.00	1600	158	0.099	163	0.102	163	0.102	163	0.102
THRU	2.00	3200	141	0.078	145	0.080	145	0.081	145	0.081
RIGHT	0.00	0	109	0.000	112	0.000	113	0.000	113	0.000
EB LEFT	1.00	1600	66	0.041	68	0.042	68	0.042	68	0.042
THRU	2.00	3200	655	0.212	675	0.218	675	0.218	675	0.218
RIGHT	0.00	0	22	0.000	23	0.000	23	0.000	23	0.000
WB LEFT	1.00	1600	18	0.011	19	0.012	19	0.012	19	0.012
THRU	3.00	4800	770	0.160	793	0.165	800	0.167	800	0.167
RIGHT	1.00	1600	191	0.119	197	0.123	197	0.123	197	0.123
Intersection Volume			2330		2400		2407		2407	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.425		0.436		0.436		0.436
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0
LEVEL OF SERVICE (LOS)				A		A		A		A

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

A.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	2	0	0	0	0	0	0	0	0	0	0	0	2
WL	3	0	0	0	0	0	0	0	0	0	0	0	3
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	5	0	0	0	0	0	0	0	0	0	0	0	5

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	261	0.163	269	0.168	269	0.168	269	0.168
THRU	2.00	3200	50	0.016	52	0.016	52	0.016	52	0.016
RIGHT	1.00	(Free)	13		13		13		13	
SB LEFT	1.00	1600	34	0.021	35	0.022	35	0.022	35	0.022
THRU	2.00	3200	39	0.012	40	0.013	40	0.013	40	0.013
RIGHT	1.00	(Free)	9		9		9		9	
EB LEFT	1.00	1600	16	0.010	16	0.010	16	0.010	16	0.010
THRU	3.00	4800	659	0.137	679	0.141	679	0.141	679	0.141
RIGHT	1.00	1600	185	0.116	191	0.119	193	0.120	193	0.120
WB LEFT	1.00	1600	16	0.010	16	0.010	19	0.012	19	0.012
THRU	2.00	3200	865	0.270	891	0.278	891	0.278	891	0.278
RIGHT	1.00	1600	52	0.032	54	0.033	54	0.033	54	0.033
Intersection Volume			2199		2265		2270		2270	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.506		0.519		0.519		0.519
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0
LEVEL OF SERVICE (LOS)				A		A		A		A

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

LEVEL OF SERVICE ANALYSIS

P.M. PEAK HOUR

Scenario: Operational Phase Traffic Impacts
 Ambient Traffic Growth: 1 % per year

	Year 2000		Forecast Year 2003		Plus Proposed Project		+V/C
	LOS	DELAY V/C	LOS	DELAY V/C	LOS	DELAY V/C	
Alameda St and I-405 Ramps	A	5.0 0.382	A	5.0 0.392	A	5.0 0.392	+0.000
Alameda St and 223rd Ramp	A	5.0 0.327	A	5.0 0.336	A	5.0 0.336	+0.000
ICTF entry/I-405 Ramps and Wardlow/223rd St	A	5.0 0.549	A	5.0 0.564	A	5.0 0.564	+0.000
Alameda St and Sepulveda Blvd	A	5.0 0.432	A	5.0 0.444	A	5.0 0.444	+0.000
Alameda St and PCH	B	6.7 0.617	B	8.4 0.634	B	8.4 0.634	+0.000
Alameda St and Anaheim St	B	14.0 0.690	C	16.0 0.710	C	16.0 0.710	+0.000
Wilmington Ave and 223rd St	E	57.6 0.988	F	65.6 1.016	F	65.6 1.016	+0.000
Wilmington Ave and Sepulveda Blvd	A	5.0 0.595	B	6.2 0.612	B	6.2 0.612	+0.000
Santa Fe and PCH	B	14.3 0.693	C	16.2 0.712	C	16.3 0.713	+0.000
Henry Ford and Anaheim St.	A	5.0 0.581	A	5.0 0.597	A	5.0 0.598	+0.000
Santa Fe and Anaheim St.	A	5.0 0.535	A	5.0 0.550	A	5.0 0.552	+0.002
9th St./Ith St. and Anaheim St.	A	5.0 0.505	A	5.0 0.519	A	5.0 0.520	+0.001

Notes:

v/c = volume to capacity ratio (capacity utilization ratio)

delay = average stopped delay in seconds per vehicle

LOS = Level of Service

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	1	0	0	0	0	0	0	0	0	0	0	0	0
NR	1	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	1	0	0	0	0	0	0	0	0	0	0	0	1

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	2.00	3200	381	0.119	392	0.123	393	0.123	393	0.123
RIGHT	1.00	1600	91	0.057	94	0.059	94	0.059	94	0.059
SB LEFT	1.00	1600	108	0.068	111	0.070	111	0.070	111	0.070
THRU	3.00	4800	354	0.074	365	0.076	365	0.076	365	0.076
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
WB LEFT	1.00	1600	232	0.145	239	0.149	239	0.149	239	0.149
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	106	0.066	109	0.068	109	0.068	109	0.068
Intersection Volume			1272		1310		1311		1311	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.382		0.392		0.392		0.392
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0
LEVEL OF SERVICE (LOS)				A		A		A		A

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	0	0	0	0	0	0	0	0	0	0	0	0	0

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	3.00	4800	472	0.175	486	0.180	486	0.180	486	0.180
RIGHT	0.00	0	367	0.000	378	0.000	378	0.000	378	0.000
SB LEFT	1.00	1600	86	0.054	89	0.055	89	0.055	89	0.055
THRU	3.00	4800	480	0.100	494	0.103	494	0.103	494	0.103
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
WB LEFT	1.00	1600	78	0.049	80	0.050	80	0.050	80	0.050
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	103	0.064	106	0.066	106	0.066	106	0.066
Intersection Volume			1586		1634		1634		1634	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.327		0.336		0.336		0.336
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0
LEVEL OF SERVICE (LOS)				A		A		A		A

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	1	0	0	0	0	0	0	0	0	0	0	0	1
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	1	0	0	0	0	0	0	0	0	0	0	0	1

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	1.00	1600	0	0.002	0	0.002	1	0.002	1	0.002
RIGHT	0.00	0	3	0.000	3	0.000	3	0.000	3	0.000
SB LEFT	1.00	1600	126	0.079	130	0.081	130	0.081	130	0.081
THRU	1.00	1600	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	33	0.021	34	0.021	34	0.021	34	0.021
EB LEFT	2.00	3120	706	0.226	727	0.233	727	0.233	727	0.233
THRU	2.00	3200	1337	0.418	1377	0.430	1377	0.430	1377	0.430
RIGHT	1.00	1600	1	0.001	1	0.001	1	0.001	1	0.001
WB LEFT	1.00	1600	1	0.001	1	0.001	1	0.001	1	0.001
THRU	2.00	3200	474	0.148	488	0.153	488	0.153	488	0.153
RIGHT	1.00	1600	285	0.178	294	0.183	294	0.183	294	0.183
Intersection Volume			2966		3055		3056		3056	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.549		0.564		0.564		0.564
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0
LEVEL OF SERVICE (LOS)				A		A		A		A

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	1	0	0	0	0	0	0	0	0	0	0	0	1
NT	2	0	0	0	0	0	0	0	0	0	0	0	2
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	3	0	0	0	0	0	0	0	0	0	0	0	3

INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	119	0.074	123	0.077	123	0.077	123	0.077
THRU	3.00	4800	422	0.120	435	0.124	437	0.124	437	0.124
RIGHT	0.00	0	154	0.000	159	0.000	159	0.000	159	0.000
SB LEFT	1.00	1600	6	0.004	6	0.004	6	0.004	6	0.004
THRU	2.00	3200	418	0.131	431	0.135	431	0.135	431	0.135
RIGHT	1.00	1600	122	0.076	126	0.079	126	0.079	126	0.079
EB LEFT	1.00	1600	128	0.080	132	0.082	132	0.082	132	0.082
THRU	2.00	3200	249	0.117	256	0.120	256	0.120	256	0.120
RIGHT	0.00	0	125	0.000	129	0.000	129	0.000	129	0.000
WB LEFT	1.00	1600	45	0.028	46	0.029	46	0.029	46	0.029
THRU	2.00	3200	311	0.097	320	0.100	320	0.100	320	0.100
RIGHT	1.00	1600	86	0.054	89	0.055	89	0.055	89	0.055
Intersection Volume			2185		2251		2254		2254	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.432		0.444		0.444		0.444	
Stopped Delay (sec/veh)			5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)			A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	1	0	0	0	0	0	0	0	0	0	0	0	1
NT	4	0	0	0	0	0	0	0	0	0	0	0	4
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	4	0	0	0	0	0	0	0	0	0	0	0	4

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	128	0.080	132	0.082	132	0.083	132	0.083
THRU	2.00	3200	129	0.040	133	0.042	136	0.043	136	0.043
RIGHT	1.00	1600	137	0.086	141	0.088	141	0.088	141	0.088
SB LEFT	1.00	1600	68	0.043	70	0.044	70	0.044	70	0.044
THRU	2.00	3200	119	0.037	123	0.038	123	0.038	123	0.038
RIGHT	1.00	1600	132	0.083	136	0.085	136	0.085	136	0.085
EB LEFT	1.00	1600	111	0.069	114	0.071	114	0.071	114	0.071
THRU	2.00	3200	1168	0.395	1203	0.407	1203	0.407	1203	0.407
RIGHT	0.00	0	96	0.000	99	0.000	99	0.000	99	0.000
WB LEFT	1.00	1600	87	0.054	90	0.056	90	0.056	90	0.056
THRU	2.00	3200	1004	0.314	1034	0.323	1034	0.323	1034	0.323
RIGHT	1.00	1600	85	0.053	88	0.055	88	0.055	88	0.055
Intersection Volume			3264		3362		3366		3366	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.617		0.634		0.634		0.634
Stopped Delay (sec/veh)				6.7		8.4		8.4		8.4
LEVEL OF SERVICE (LOS)				B		B		B		B

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	1	0	0	0	0	0	0	0	0	0	0	0	1
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	1	0	0	0	0	0	0	0	0	0	0	0	1

INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	19	0.012	20	0.012	20	0.012	20	0.012
THRU	2.00	3200	137	0.043	141	0.044	141	0.044	141	0.044
RIGHT	1.00	1600	536	0.335	552	0.345	552	0.345	552	0.345
SB LEFT	1.00	1600	6	0.004	6	0.004	6	0.004	6	0.004
THRU	2.00	3200	91	0.028	94	0.029	94	0.029	94	0.029
RIGHT	1.00	1600	116	0.072	119	0.075	119	0.075	119	0.075
EB LEFT	1.00	1600	73	0.046	75	0.047	75	0.047	75	0.047
THRU	2.00	3200	899	0.281	926	0.289	926	0.289	926	0.289
RIGHT	1.00	1600	8	0.005	8	0.005	8	0.005	8	0.005
WB LEFT	2.00	3120	244	0.078	251	0.081	251	0.081	251	0.081
THRU	1.00	1600	877	0.548	903	0.565	904	0.565	904	0.565
RIGHT	1.00	1600	32	0.020	33	0.021	33	0.021	33	0.021
Intersection Volume			3038		3129		3130		3130	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.690		0.710		0.710		0.710	
Stopped Delay (sec/veh)			14.0		16.0		16.0		16.0	
LEVEL OF SERVICE (LOS)			B		C		C		C	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	0	0	0	0	0	0	0	0	0	0	0	0	0

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	44	0.027	45	0.028	45	0.028	45	0.028
THRU	2.00	3200	1108	0.346	1141	0.357	1141	0.357	1141	0.357
RIGHT	1.00	1600	567	0.354	584	0.365	584	0.365	584	0.365
SB LEFT	1.00	1600	209	0.131	215	0.135	215	0.135	215	0.135
THRU	2.00	3200	1026	0.321	1057	0.330	1057	0.330	1057	0.330
RIGHT	1.00	1600	372	0.233	383	0.239	383	0.239	383	0.239
EB LEFT	1.00	1600	466	0.291	480	0.300	480	0.300	480	0.300
THRU	2.00	3200	1121	0.350	1155	0.361	1155	0.361	1155	0.361
RIGHT	1.00	1600	14	0.009	14	0.009	14	0.009	14	0.009
WB LEFT	1.00	1600	177	0.111	182	0.114	182	0.114	182	0.114
THRU	2.00	3200	317	0.099	327	0.102	327	0.102	327	0.102
RIGHT	1.00	1600	172	0.108	177	0.111	177	0.111	177	0.111
Intersection Volume			5593		5761		5761		5761	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.988		1.016		1.016		1.016	
Stopped Delay (sec/veh)			57.6		65.6		65.6		65.6	
LEVEL OF SERVICE (LOS)			E		F		F		F	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	0	0	0	0	0	0	0	0	0	0	0	0	0

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	29	0.018	30	0.019	30	0.019	30	0.019
THRU	2.00	3200	285	0.089	294	0.092	294	0.092	294	0.092
RIGHT	1.00	1600	70	0.044	72	0.045	72	0.045	72	0.045
SB LEFT	1.00	1600	94	0.059	97	0.061	97	0.061	97	0.061
THRU	2.00	3200	532	0.166	548	0.171	548	0.171	548	0.171
RIGHT	1.00	1600	294	0.184	303	0.189	303	0.189	303	0.189
EB LEFT	1.00	1600	228	0.142	235	0.147	235	0.147	235	0.147
THRU	2.00	3200	993	0.310	1023	0.320	1023	0.320	1023	0.320
RIGHT	1.00	(Free)	19		20		20		20	
WB LEFT	1.00	1600	81	0.051	83	0.052	83	0.052	83	0.052
THRU	2.00	3200	336	0.105	346	0.108	346	0.108	346	0.108
RIGHT	1.00	1600	73	0.046	75	0.047	75	0.047	75	0.047
Intersection Volume			3034		3125		3125		3125	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.595		0.612		0.612		0.612
Stopped Delay (sec/veh)				5.0		6.2		6.2		6.2
LEVEL OF SERVICE (LOS)				A		B		B		B

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	1	0	0	0	0	0	0	0	0	0	0	0	1
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	1	0	0	0	0	0	0	0	0	0	0	0	1

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	119	0.074	123	0.077	123	0.077	123	0.077
THRU	2.00	3200	329	0.103	339	0.106	339	0.106	339	0.106
RIGHT	1.00	1600	134	0.084	138	0.086	138	0.086	138	0.086
SB LEFT	1.00	1600	137	0.086	141	0.088	141	0.088	141	0.088
THRU	2.00	3200	269	0.084	277	0.087	277	0.087	277	0.087
RIGHT	1.00	1600	73	0.046	75	0.047	75	0.047	75	0.047
EB LEFT	1.00	1600	134	0.084	138	0.086	138	0.086	138	0.086
THRU	2.00	3200	1293	0.404	1332	0.416	1332	0.416	1332	0.416
RIGHT	1.00	1600	90	0.056	93	0.058	93	0.058	93	0.058
WB LEFT	1.00	1600	81	0.051	83	0.052	83	0.052	83	0.052
THRU	2.00	3200	1019	0.318	1050	0.328	1050	0.328	1050	0.328
RIGHT	1.00	1600	108	0.068	111	0.070	111	0.070	111	0.070
Intersection Volume			3786		3900		3900		3900	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.693		0.712		0.713		0.713	
Stopped Delay (sec/veh)			14.3		16.2		16.3		16.3	
LEVEL OF SERVICE (LOS)			B		C		C		C	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	2	0	0	0	0	0	0	0	0	0	0	0	2
NR	4	0	0	0	0	0	0	0	0	0	0	0	4
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	2	0	0	0	0	0	0	0	0	0	0	0	2
Sum	9	0	0	0	0	0	0	0	0	0	0	0	9

INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.50	2360	277	0.117	285	0.121	286	0.121	286	0.121
THRU	1.50	2400	113	0.080	116	0.083	119	0.086	119	0.086
RIGHT	0.00	0	80	0.000	82	0.000	87	0.000	87	0.000
SB LEFT	0.00	0	95	0.000	98	0.000	98	0.000	98	0.000
THRU	1.00	1600	22	0.073	23	0.075	23	0.075	23	0.075
RIGHT	1.00	1600	15	0.009	15	0.010	15	0.010	15	0.010
EB LEFT	1.00	1600	33	0.021	34	0.021	34	0.021	34	0.021
THRU	2.00	3200	991	0.310	1021	0.319	1021	0.319	1021	0.319
RIGHT	1.00	(Free)	70		72		72		72	
WB LEFT	1.00	1600	50	0.031	52	0.032	52	0.032	52	0.032
THRU	2.00	3200	925	0.289	953	0.298	953	0.298	953	0.298
RIGHT	1.00	1600	172	0.108	177	0.111	179	0.112	179	0.112
Intersection Volume			2843		2928		2937		2937	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.581		0.597		0.598		0.598	
Stopped Delay (sec/veh)			5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)			A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	1	0	0	0	0	0	0	0	0	0	0	0	1
ET	7	0	0	0	0	0	0	0	0	0	0	0	7
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	7	0	0	0	0	0	0	0	0	0	0	0	7

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	23	0.014	24	0.015	24	0.015	24	0.015
THRU	2.00	3200	137	0.058	141	0.059	141	0.059	141	0.059
RIGHT	0.00	0	47	0.000	48	0.000	48	0.000	48	0.000
SB LEFT	1.00	1600	187	0.117	193	0.120	193	0.120	193	0.120
THRU	2.00	3200	129	0.077	133	0.080	133	0.080	133	0.080
RIGHT	0.00	0	118	0.000	122	0.000	122	0.000	122	0.000
EB LEFT	1.00	1600	78	0.049	80	0.050	81	0.051	81	0.051
THRU	2.00	3200	927	0.296	955	0.305	961	0.307	961	0.307
RIGHT	0.00	0	21	0.000	22	0.000	22	0.000	22	0.000
WB LEFT	1.00	1600	23	0.014	24	0.015	24	0.015	24	0.015
THRU	3.00	4800	729	0.152	751	0.156	751	0.156	751	0.156
RIGHT	1.00	1600	157	0.098	162	0.101	162	0.101	162	0.101
Intersection Volume			2576		2653		2660		2660	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.535		0.550		0.552		0.552
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0
LEVEL OF SERVICE (LOS)				A		A		A		A

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	2	0	0	0	0	0	0	0	0	0	0	0	2
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	2	0	0	0	0	0	0	0	0	0	0	0	2
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	5	0	0	0	0	0	0	0	0	0	0	0	5
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	9	0	0	0	0	0	0	0	0	0	0	0	9

INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Operational Phase Traffic Impacts
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2003		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	272	0.170	280	0.175	282	0.176	282	0.176
THRU	2.00	3200	222	0.069	229	0.071	229	0.071	229	0.071
RIGHT	1.00	(Free)	59		61		63		63	
SB LEFT	1.00	1600	34	0.021	35	0.022	35	0.022	35	0.022
THRU	2.00	3200	33	0.010	34	0.011	34	0.011	34	0.011
RIGHT	1.00	(Free)	19		20		20		20	
EB LEFT	1.00	1600	23	0.014	24	0.015	24	0.015	24	0.015
THRU	3.00	4800	955	0.199	984	0.205	989	0.206	989	0.206
RIGHT	1.00	1600	229	0.143	236	0.147	236	0.147	236	0.147
WB LEFT	1.00	1600	8	0.005	8	0.005	8	0.005	8	0.005
THRU	2.00	3200	833	0.260	858	0.268	858	0.268	858	0.268
RIGHT	1.00	1600	150	0.094	155	0.097	155	0.097	155	0.097
Intersection Volume			2837		2922		2931		2931	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.505		0.519		0.520		0.520
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0
LEVEL OF SERVICE (LOS)				A		A		A		A

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

**ULTRAMAR REFINERY
CUMULATIVE
TRAFFIC IMPACTS
YEAR 2020**

LEVEL OF SERVICE ANALYSIS

A.M. PEAK HOUR

Scenario: Year 2020 Traffic
 Ambient Traffic Growth: 1 % per year

	Year 2000		Forecast Year 2020		Plus Proposed Project		+V/C
	LOS	DELAY V/C	LOS	DELAY V/C	LOS	DELAY V/C	
Alameda St and I-405 Ramps	A	5.0 0.362	A	5.0 0.425	A	5.0 0.425	+0.000
Alameda St and 223rd Ramp	A	5.0 0.294	A	5.0 0.342	A	5.0 0.342	+0.000
ICTF entry/I-405 Ramps and Wardlow/223rd St	A	5.0 0.497	A	5.0 0.586	A	5.0 0.586	+0.000
Alameda St and Sepulveda Blvd	A	5.0 0.395	A	5.0 0.464	A	5.0 0.465	+0.001
Alameda St and PCH	A	5.0 0.497	A	5.0 0.587	A	5.0 0.588	+0.001
Alameda St and Anaheim St	B	7.3 0.623	C	18.7 0.737	C	18.7 0.737	+0.000
Wilmington Ave and 223rd St	E	44.7 0.924	F	94.5 1.099	F	94.5 1.099	+0.000
Wilmington Ave and Sepulveda Blvd	A	5.0 0.563	B	11.6 0.666	B	11.6 0.666	+0.000
Santa Fe and PCH	B	9.8 0.648	C	21.8 0.768	C	21.8 0.768	+0.000
Henry Ford and Anaheim St.	A	5.0 0.513	B	5.6 0.606	B	5.8 0.608	+0.003
Santa Fe and Anaheim St.	A	5.0 0.425	A	5.0 0.500	A	5.0 0.500	+0.000
9th St./Ith St. and Anaheim St.	A	5.0 0.506	A	5.0 0.597	A	5.0 0.597	+0.000

Notes:

v/c = volume to capacity ratio (capacity utilization ratio)
 delay = average stopped delay in seconds per vehicle
 LOS = Level of Service

A.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	1	0	0	0	0	0	0	0	0	0	0	0	1
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	1	0	0	0	0	0	0	0	0	0	0	0	1

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	2.00	3200	331	0.103	397	0.124	397	0.124	397	0.124
RIGHT	1.00	1600	17	0.011	20	0.013	20	0.013	20	0.013
SB LEFT	1.00	1600	60	0.038	72	0.045	72	0.045	72	0.045
THRU	3.00	4800	380	0.079	456	0.095	457	0.095	457	0.095
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
WB LEFT	1.00	1600	274	0.171	329	0.206	329	0.206	329	0.206
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	261	0.163	313	0.196	313	0.196	313	0.196
Intersection Volume			1323		1588		1588		1588	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.362		0.425		0.425		0.425
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0
LEVEL OF SERVICE (LOS)				A		A		A		A

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

A.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	1	0	0	0	0	0	0	0	0	0	0	0	1
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	1	0	0	0	0	0	0	0	0	0	0	0	1

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	3.00	4800	247	0.089	296	0.106	296	0.106	296	0.106
RIGHT	0.00	0	178	0.000	214	0.000	214	0.000	214	0.000
SB LEFT	1.00	1600	111	0.069	133	0.083	133	0.083	133	0.083
THRU	3.00	4800	513	0.107	616	0.128	616	0.128	616	0.128
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
WB LEFT	1.00	1600	137	0.086	164	0.103	164	0.103	164	0.103
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	128	0.080	154	0.096	154	0.096	154	0.096
Intersection Volume			1314		1577		1577		1577	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.294		0.342		0.342		0.342
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0
LEVEL OF SERVICE (LOS)				A		A		A		A

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

A.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	1	0	0	0	0	0	0	0	0	0	0	0	1
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	1	0	0	0	0	0	0	0	0	0	0	0	1
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	1	0	0	0	0	0	0	0	0	0	0	0	1

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	0.00	0	1	0.000	1	0.000	1	0.000	1	0.000
THRU	1.00	1600	0	0.005	0	0.006	0	0.006	0	0.006
RIGHT	0.00	0	7	0.000	8	0.000	8	0.000	8	0.000
SB LEFT	1.00	1600	63	0.039	76	0.047	76	0.047	76	0.047
THRU	1.00	1600	0	0.000	0	0.000	1	0.000	1	0.000
RIGHT	1.00	1600	112	0.070	134	0.084	134	0.084	134	0.084
EB LEFT	2.00	3120	337	0.108	404	0.130	404	0.130	404	0.130
THRU	2.00	3200	478	0.149	574	0.179	574	0.179	574	0.179
RIGHT	1.00	1600	2	0.001	2	0.002	2	0.002	2	0.002
WB LEFT	1.00	1600	8	0.005	10	0.006	10	0.006	10	0.006
THRU	2.00	3200	942	0.294	1130	0.353	1130	0.353	1130	0.353
RIGHT	1.00	1600	148	0.093	178	0.111	178	0.111	178	0.111
Intersection Volume			2098		2518		2519		2519	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.497		0.586		0.586		0.586	
Stopped Delay (sec/veh)			5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)			A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

A.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	2	0	0	0	0	0	0	0	0	0	0	0	2
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	1	0	0	0	0	0	0	0	0	0	0	0	1
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	3	0	0	0	0	0	0	0	0	0	0	0	3

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	120	0.075	144	0.090	144	0.090	144	0.090
THRU	3.00	4800	443	0.120	532	0.144	532	0.144	532	0.144
RIGHT	0.00	0	131	0.000	157	0.000	157	0.000	157	0.000
SB LEFT	1.00	1600	4	0.002	5	0.003	5	0.003	5	0.003
THRU	2.00	3200	388	0.121	466	0.146	468	0.146	468	0.146
RIGHT	1.00	1600	112	0.070	134	0.084	134	0.084	134	0.084
EB LEFT	1.00	1600	106	0.066	127	0.080	127	0.080	127	0.080
THRU	2.00	3200	282	0.122	338	0.146	338	0.146	338	0.146
RIGHT	0.00	0	107	0.000	128	0.000	129	0.000	129	0.000
WB LEFT	1.00	1600	43	0.027	52	0.032	52	0.032	52	0.032
THRU	2.00	3200	240	0.075	288	0.090	288	0.090	288	0.090
RIGHT	1.00	1600	71	0.044	85	0.053	85	0.053	85	0.053
Intersection Volume			2047		2456		2459		2459	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.395		0.464		0.465		0.465	
Stopped Delay (sec/veh)			5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)			A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

A.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	4	0	0	0	0	0	0	0	0	0	0	0	4
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	1	0	0	0	0	0	0	0	0	0	0	0	1
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	4	0	0	0	0	0	0	0	0	0	0	0	4

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	43	0.027	52	0.032	52	0.032	52	0.032
THRU	2.00	3200	52	0.016	62	0.020	62	0.020	62	0.020
RIGHT	1.00	1600	54	0.034	65	0.041	65	0.041	65	0.041
SB LEFT	1.00	1600	52	0.032	62	0.039	62	0.039	62	0.039
THRU	2.00	3200	88	0.027	106	0.033	109	0.034	109	0.034
RIGHT	1.00	1600	68	0.043	82	0.051	82	0.051	82	0.051
EB LEFT	1.00	1600	126	0.079	151	0.095	151	0.095	151	0.095
THRU	2.00	3200	738	0.256	886	0.307	886	0.307	886	0.307
RIGHT	0.00	0	80	0.000	96	0.000	97	0.000	97	0.000
WB LEFT	1.00	1600	96	0.060	115	0.072	115	0.072	115	0.072
THRU	2.00	3200	1005	0.314	1206	0.377	1206	0.377	1206	0.377
RIGHT	1.00	1600	42	0.026	50	0.032	50	0.032	50	0.032
Intersection Volume			2444		2933		2937		2937	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.497		0.587		0.588		0.588
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0
LEVEL OF SERVICE (LOS)				A		A		A		A

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

A.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	1	0	0	0	0	0	0	0	0	0	0	0	1
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	1	0	0	0	0	0	0	0	0	0	0	0	1

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	16	0.010	19	0.012	19	0.012	19	0.012
THRU	2.00	3200	92	0.029	110	0.034	110	0.034	110	0.034
RIGHT	1.00	1600	380	0.237	456	0.285	456	0.285	456	0.285
SB LEFT	1.00	1600	5	0.003	6	0.004	6	0.004	6	0.004
THRU	2.00	3200	159	0.050	191	0.060	191	0.060	191	0.060
RIGHT	1.00	1600	54	0.034	65	0.041	65	0.041	65	0.041
EB LEFT	1.00	1600	92	0.058	110	0.069	110	0.069	110	0.069
THRU	2.00	3200	1028	0.321	1234	0.386	1234	0.386	1234	0.386
RIGHT	1.00	1600	14	0.009	17	0.011	17	0.011	17	0.011
WB LEFT	2.00	3120	313	0.100	376	0.120	376	0.120	376	0.120
THRU	1.00	1600	729	0.456	875	0.547	875	0.547	875	0.547
RIGHT	1.00	1600	25	0.016	30	0.019	30	0.019	30	0.019
Intersection Volume			2907		3488		3489		3489	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.623		0.737		0.737		0.737	
Stopped Delay (sec/veh)			7.3		18.7		18.7		18.7	
LEVEL OF SERVICE (LOS)			B		C		C		C	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

A.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	0	0	0	0	0	0	0	0	0	0	0	0	0

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	14	0.009	17	0.011	17	0.011	17	0.011
THRU	2.00	3200	885	0.277	1062	0.332	1062	0.332	1062	0.332
RIGHT	1.00	1600	339	0.212	407	0.254	407	0.254	407	0.254
SB LEFT	1.00	1600	161	0.101	193	0.121	193	0.121	193	0.121
THRU	2.00	3200	1158	0.362	1390	0.434	1390	0.434	1390	0.434
RIGHT	1.00	1600	434	0.271	521	0.326	521	0.326	521	0.326
EB LEFT	1.00	1600	483	0.302	580	0.362	580	0.362	580	0.362
THRU	2.00	3200	495	0.155	594	0.186	594	0.186	594	0.186
RIGHT	1.00	1600	26	0.016	31	0.020	31	0.020	31	0.020
WB LEFT	1.00	1600	307	0.192	368	0.230	368	0.230	368	0.230
THRU	2.00	3200	623	0.195	748	0.234	748	0.234	748	0.234
RIGHT	1.00	1600	121	0.076	145	0.091	145	0.091	145	0.091
Intersection Volume			5046		6055		6055		6055	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.924		1.099		1.099		1.099	
Stopped Delay (sec/veh)			44.7		94.5		94.5		94.5	
LEVEL OF SERVICE (LOS)			E		F		F		F	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

A.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	20	0.013	24	0.015	24	0.015	24	0.015
THRU	2.00	3200	537	0.168	644	0.201	644	0.201	644	0.201
RIGHT	1.00	1600	62	0.039	74	0.047	74	0.047	74	0.047
SB LEFT	1.00	1600	53	0.033	64	0.040	64	0.040	64	0.040
THRU	2.00	3200	325	0.102	390	0.122	390	0.122	390	0.122
RIGHT	1.00	1600	169	0.106	203	0.127	203	0.127	203	0.127
EB LEFT	1.00	1600	347	0.217	416	0.260	416	0.260	416	0.260
THRU	2.00	3200	197	0.062	236	0.074	236	0.074	236	0.074
RIGHT	1.00	(Free)	31		37		37		37	
WB LEFT	1.00	1600	85	0.053	102	0.064	102	0.064	102	0.064
THRU	2.00	3200	305	0.095	366	0.114	366	0.114	366	0.114
RIGHT	1.00	1600	70	0.044	84	0.052	84	0.052	84	0.052
Intersection Volume			2201		2641		2641		2641	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.563		0.666		0.666		0.666	
Stopped Delay (sec/veh)			5.0		11.6		11.6		11.6	
LEVEL OF SERVICE (LOS)			A		B		B		B	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

A.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	1	0	0	0	0	0	0	0	0	0	0	0	1
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	1	0	0	0	0	0	0	0	0	0	0	0	1

INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	124	0.078	149	0.093	149	0.093	149	0.093
THRU	2.00	3200	260	0.081	312	0.097	312	0.097	312	0.097
RIGHT	1.00	1600	68	0.043	82	0.051	82	0.051	82	0.051
SB LEFT	1.00	1600	133	0.083	160	0.100	160	0.100	160	0.100
THRU	2.00	3200	339	0.106	407	0.127	407	0.127	407	0.127
RIGHT	1.00	1600	124	0.078	149	0.093	149	0.093	149	0.093
EB LEFT	1.00	1600	68	0.043	82	0.051	82	0.051	82	0.051
THRU	2.00	3200	689	0.215	827	0.258	827	0.258	827	0.258
RIGHT	1.00	1600	94	0.059	113	0.071	113	0.071	113	0.071
WB LEFT	1.00	1600	79	0.049	95	0.059	95	0.059	95	0.059
THRU	2.00	3200	1192	0.373	1430	0.447	1430	0.447	1430	0.447
RIGHT	1.00	1600	212	0.132	254	0.159	254	0.159	254	0.159
Intersection Volume			3382		4058		4059		4059	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.648		0.768		0.768		0.768	
Stopped Delay (sec/veh)			9.8		21.8		21.8		21.8	
LEVEL OF SERVICE (LOS)			B		C		C		C	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

A.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	2	0	0	0	0	0	0	0	0	0	0	0	2
ST	2	0	0	0	0	0	0	0	0	0	0	0	2
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	4	0	0	0	0	0	0	0	0	0	0	0	4
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	9	0	0	0	0	0	0	0	0	0	0	0	9

INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.50	2360	142	0.060	170	0.072	170	0.072	170	0.072
THRU	1.50	2400	54	0.046	65	0.056	65	0.056	65	0.056
RIGHT	0.00	0	57	0.000	68	0.000	68	0.000	68	0.000
SB LEFT	0.00	0	45	0.000	54	0.000	56	0.000	56	0.000
THRU	1.00	1600	75	0.075	90	0.090	92	0.093	92	0.093
RIGHT	1.00	1600	12	0.007	14	0.009	14	0.009	14	0.009
EB LEFT	1.00	1600	12	0.007	14	0.009	14	0.009	14	0.009
THRU	2.00	3200	826	0.258	991	0.310	991	0.310	991	0.310
RIGHT	1.00	(Free)	419		503		503		503	
WB LEFT	1.00	1600	75	0.047	90	0.056	94	0.059	94	0.059
THRU	2.00	3200	1025	0.320	1230	0.384	1230	0.384	1230	0.384
RIGHT	1.00	1600	93	0.058	112	0.070	112	0.070	112	0.070
Intersection Volume			2835		3402		3411		3411	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.513		0.606		0.608		0.608
Stopped Delay (sec/veh)				5.0		5.6		5.8		5.8
LEVEL OF SERVICE (LOS)				A		B		B		B

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

A.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	1	0	0	0	0	0	0	0	0	0	0	0	1
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	7	0	0	0	0	0	0	0	0	0	0	0	7
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	7	0	0	0	0	0	0	0	0	0	0	0	7

INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	30	0.019	36	0.023	36	0.023	36	0.023
THRU	2.00	3200	147	0.053	176	0.064	176	0.064	176	0.064
RIGHT	0.00	0	23	0.000	28	0.000	28	0.000	28	0.000
SB LEFT	1.00	1600	158	0.099	190	0.119	190	0.119	190	0.119
THRU	2.00	3200	141	0.078	169	0.094	169	0.094	169	0.094
RIGHT	0.00	0	109	0.000	131	0.000	131	0.000	131	0.000
EB LEFT	1.00	1600	66	0.041	79	0.050	79	0.050	79	0.050
THRU	2.00	3200	655	0.212	786	0.254	786	0.254	786	0.254
RIGHT	0.00	0	22	0.000	26	0.000	26	0.000	26	0.000
WB LEFT	1.00	1600	18	0.011	22	0.014	22	0.014	22	0.014
THRU	3.00	4800	770	0.160	924	0.193	931	0.194	931	0.194
RIGHT	1.00	1600	191	0.119	229	0.143	229	0.143	229	0.143
Intersection Volume			2330		2796		2803		2803	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.425		0.500		0.500		0.500
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0
LEVEL OF SERVICE (LOS)				A		A		A		A

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

A.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	2	0	0	0	0	0	0	0	0	0	0	0	2
WL	3	0	0	0	0	0	0	0	0	0	0	0	3
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	5	0	0	0	0	0	0	0	0	0	0	0	5

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	261	0.163	313	0.196	313	0.196	313	0.196
THRU	2.00	3200	50	0.016	60	0.019	60	0.019	60	0.019
RIGHT	1.00	(Free)	13		16		16		16	
SB LEFT	1.00	1600	34	0.021	41	0.026	41	0.026	41	0.026
THRU	2.00	3200	39	0.012	47	0.015	47	0.015	47	0.015
RIGHT	1.00	(Free)	9		11		11		11	
EB LEFT	1.00	1600	16	0.010	19	0.012	19	0.012	19	0.012
THRU	3.00	4800	659	0.137	791	0.165	791	0.165	791	0.165
RIGHT	1.00	1600	185	0.116	222	0.139	224	0.140	224	0.140
WB LEFT	1.00	1600	16	0.010	19	0.012	22	0.014	22	0.014
THRU	2.00	3200	865	0.270	1038	0.324	1038	0.324	1038	0.324
RIGHT	1.00	1600	52	0.032	62	0.039	62	0.039	62	0.039
Intersection Volume			2199		2639		2644		2644	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.506		0.597		0.597		0.597
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0
LEVEL OF SERVICE (LOS)				A		A		A		A

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

LEVEL OF SERVICE ANALYSIS

P.M. PEAK HOUR

Scenario: Year 2020 Traffic
 Ambient Traffic Growth: 1 % per year

	Year 2000		Forecast Year 2020		Plus Proposed Project		+V/C
	LOS	DELAY V/C	LOS	DELAY V/C	LOS	DELAY V/C	
Alameda St and I-405 Ramps	A	5.0 0.382	A	5.0 0.448	A	5.0 0.448	+0.000
Alameda St and 223rd Ramp	A	5.0 0.327	A	5.0 0.383	A	5.0 0.383	+0.000
ICTF entry/I-405 Ramps and Wardlow/223rd St	A	5.0 0.549	B	9.9 0.649	B	9.9 0.649	+0.000
Alameda St and Sepulveda Blvd	A	5.0 0.432	A	5.0 0.509	A	5.0 0.509	+0.000
Alameda St and PCH	B	6.7 0.617	C	18.0 0.730	C	18.0 0.730	+0.000
Alameda St and Anaheim St	B	14.0 0.690	D	27.8 0.818	D	27.8 0.819	+0.000
Wilmington Ave and 223rd St	E	57.6 0.988	F	121.4 1.175	F	121.4 1.175	+0.000
Wilmington Ave and Sepulveda Blvd	A	5.0 0.595	C	15.4 0.704	C	15.4 0.704	+0.000
Santa Fe and PCH	B	14.3 0.693	D	28.3 0.822	D	28.3 0.822	+0.000
Henry Ford and Anaheim St.	A	5.0 0.581	B	13.8 0.688	B	13.8 0.688	+0.000
Santa Fe and Anaheim St.	A	5.0 0.535	B	8.2 0.632	B	8.4 0.634	+0.002
9th St./Ith St. and Anaheim St.	A	5.0 0.505	A	5.0 0.596	A	5.0 0.597	+0.001

Notes:

v/c = volume to capacity ratio (capacity utilization ratio)
 delay = average stopped delay in seconds per vehicle
 LOS = Level of Service

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	1	0	0	0	0	0	0	0	0	0	0	0	1
NR	1	0	0	0	0	0	0	0	0	0	0	0	1
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	1	0	0	0	0	0	0	0	0	0	0	0	1

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	2.00	3200	381	0.119	457	0.143	458	0.143	458	0.143
RIGHT	1.00	1600	91	0.057	109	0.068	110	0.069	110	0.069
SB LEFT	1.00	1600	108	0.068	130	0.081	130	0.081	130	0.081
THRU	3.00	4800	354	0.074	425	0.089	425	0.089	425	0.089
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
WB LEFT	1.00	1600	232	0.145	278	0.174	278	0.174	278	0.174
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	106	0.066	127	0.080	127	0.080	127	0.080
Intersection Volume			1272		1526		1528		1528	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.382		0.448		0.448		0.448
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0
LEVEL OF SERVICE (LOS)				A		A		A		A

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	0	0	0	0	0	0	0	0	0	0	0	0	0

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	3.00	4800	472	0.175	566	0.210	566	0.210	566	0.210
RIGHT	0.00	0	367	0.000	440	0.000	440	0.000	440	0.000
SB LEFT	1.00	1600	86	0.054	103	0.065	103	0.065	103	0.065
THRU	3.00	4800	480	0.100	576	0.120	576	0.120	576	0.120
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
WB LEFT	1.00	1600	78	0.049	94	0.059	94	0.059	94	0.059
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	103	0.064	124	0.077	124	0.077	124	0.077
Intersection Volume			1586		1903		1903		1903	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.327		0.383		0.383		0.383	
Stopped Delay (sec/veh)			5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)			A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	1	0	0	0	0	0	0	0	0	0	0	0	1
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	1	0	0	0	0	0	0	0	0	0	0	0	1

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	1.00	1600	0	0.002	0	0.002	1	0.003	1	0.003
RIGHT	0.00	0	3	0.000	4	0.000	4	0.000	4	0.000
SB LEFT	1.00	1600	126	0.079	151	0.095	151	0.095	151	0.095
THRU	1.00	1600	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	33	0.021	40	0.025	40	0.025	40	0.025
EB LEFT	2.00	3120	706	0.226	847	0.272	847	0.272	847	0.272
THRU	2.00	3200	1337	0.418	1604	0.501	1604	0.501	1604	0.501
RIGHT	1.00	1600	1	0.001	1	0.001	1	0.001	1	0.001
WB LEFT	1.00	1600	1	0.001	1	0.001	1	0.001	1	0.001
THRU	2.00	3200	474	0.148	569	0.178	569	0.178	569	0.178
RIGHT	1.00	1600	285	0.178	342	0.214	342	0.214	342	0.214
Intersection Volume			2966		3559		3560		3560	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.549		0.649		0.649		0.649	
Stopped Delay (sec/veh)			5.0		9.9		9.9		9.9	
LEVEL OF SERVICE (LOS)			A		B		B		B	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	1	0	0	0	0	0	0	0	0	0	0	0	1
NT	2	0	0	0	0	0	0	0	0	0	0	0	2
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	3	0	0	0	0	0	0	0	0	0	0	0	3

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	119	0.074	143	0.089	143	0.090	143	0.090
THRU	3.00	4800	422	0.120	506	0.144	509	0.145	509	0.145
RIGHT	0.00	0	154	0.000	185	0.000	185	0.000	185	0.000
SB LEFT	1.00	1600	6	0.004	7	0.005	7	0.005	7	0.005
THRU	2.00	3200	418	0.131	502	0.157	502	0.157	502	0.157
RIGHT	1.00	1600	122	0.076	146	0.092	146	0.092	146	0.092
EB LEFT	1.00	1600	128	0.080	154	0.096	154	0.096	154	0.096
THRU	2.00	3200	249	0.117	299	0.140	299	0.140	299	0.140
RIGHT	0.00	0	125	0.000	150	0.000	150	0.000	150	0.000
WB LEFT	1.00	1600	45	0.028	54	0.034	54	0.034	54	0.034
THRU	2.00	3200	311	0.097	373	0.117	373	0.117	373	0.117
RIGHT	1.00	1600	86	0.054	103	0.065	103	0.065	103	0.065
Intersection Volume			2185		2622		2625		2625	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.432		0.509		0.509		0.509	
Stopped Delay (sec/veh)			5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)			A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	1	0	0	0	0	0	0	0	0	0	0	0	1
NT	4	0	0	0	0	0	0	0	0	0	0	0	4
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	4	0	0	0	0	0	0	0	0	0	0	0	4

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	128	0.080	154	0.096	154	0.096	154	0.096
THRU	2.00	3200	129	0.040	155	0.048	158	0.049	158	0.049
RIGHT	1.00	1600	137	0.086	164	0.103	164	0.103	164	0.103
SB LEFT	1.00	1600	68	0.043	82	0.051	82	0.051	82	0.051
THRU	2.00	3200	119	0.037	143	0.045	143	0.045	143	0.045
RIGHT	1.00	1600	132	0.083	158	0.099	158	0.099	158	0.099
EB LEFT	1.00	1600	111	0.069	133	0.083	133	0.083	133	0.083
THRU	2.00	3200	1168	0.395	1402	0.474	1402	0.474	1402	0.474
RIGHT	0.00	0	96	0.000	115	0.000	115	0.000	115	0.000
WB LEFT	1.00	1600	87	0.054	104	0.065	104	0.065	104	0.065
THRU	2.00	3200	1004	0.314	1205	0.377	1205	0.377	1205	0.377
RIGHT	1.00	1600	85	0.053	102	0.064	102	0.064	102	0.064
Intersection Volume			3264		3917		3921		3921	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.617		0.730		0.730		0.730
Stopped Delay (sec/veh)				6.7		18.0		18.0		18.0
LEVEL OF SERVICE (LOS)				B		C		C		C

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	1	0	0	0	0	0	0	0	0	0	0	0	1
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	1	0	0	0	0	0	0	0	0	0	0	0	1

INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	19	0.012	23	0.014	23	0.014	23	0.014
THRU	2.00	3200	137	0.043	164	0.051	164	0.051	164	0.051
RIGHT	1.00	1600	536	0.335	643	0.402	643	0.402	643	0.402
SB LEFT	1.00	1600	6	0.004	7	0.005	7	0.005	7	0.005
THRU	2.00	3200	91	0.028	109	0.034	109	0.034	109	0.034
RIGHT	1.00	1600	116	0.072	139	0.087	139	0.087	139	0.087
EB LEFT	1.00	1600	73	0.046	88	0.055	88	0.055	88	0.055
THRU	2.00	3200	899	0.281	1079	0.337	1079	0.337	1079	0.337
RIGHT	1.00	1600	8	0.005	10	0.006	10	0.006	10	0.006
WB LEFT	2.00	3120	244	0.078	293	0.094	293	0.094	293	0.094
THRU	1.00	1600	877	0.548	1052	0.658	1053	0.658	1053	0.658
RIGHT	1.00	1600	32	0.020	38	0.024	38	0.024	38	0.024
Intersection Volume			3038		3646		3646		3646	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.690		0.818		0.819		0.819	
Stopped Delay (sec/veh)			14.0		27.8		27.8		27.8	
LEVEL OF SERVICE (LOS)			B		D		D		D	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	0	0	0	0	0	0	0	0	0	0	0	0	0

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	44	0.027	53	0.033	53	0.033	53	0.033
THRU	2.00	3200	1108	0.346	1330	0.416	1330	0.416	1330	0.416
RIGHT	1.00	1600	567	0.354	680	0.425	680	0.425	680	0.425
SB LEFT	1.00	1600	209	0.131	251	0.157	251	0.157	251	0.157
THRU	2.00	3200	1026	0.321	1231	0.385	1231	0.385	1231	0.385
RIGHT	1.00	1600	372	0.233	446	0.279	446	0.279	446	0.279
EB LEFT	1.00	1600	466	0.291	559	0.350	559	0.350	559	0.350
THRU	2.00	3200	1121	0.350	1345	0.420	1345	0.420	1345	0.420
RIGHT	1.00	1600	14	0.009	17	0.011	17	0.011	17	0.011
WB LEFT	1.00	1600	177	0.111	212	0.133	212	0.133	212	0.133
THRU	2.00	3200	317	0.099	380	0.119	380	0.119	380	0.119
RIGHT	1.00	1600	172	0.108	206	0.129	206	0.129	206	0.129
Intersection Volume			5593		6712		6712		6712	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.988		1.175		1.175		1.175	
Stopped Delay (sec/veh)			57.6		121.4		121.4		121.4	
LEVEL OF SERVICE (LOS)			E		F		F		F	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	29	0.018	35	0.022	35	0.022	35	0.022
THRU	2.00	3200	285	0.089	342	0.107	342	0.107	342	0.107
RIGHT	1.00	1600	70	0.044	84	0.052	84	0.052	84	0.052
SB LEFT	1.00	1600	94	0.059	113	0.071	113	0.071	113	0.071
THRU	2.00	3200	532	0.166	638	0.200	638	0.200	638	0.200
RIGHT	1.00	1600	294	0.184	353	0.221	353	0.221	353	0.221
EB LEFT	1.00	1600	228	0.142	274	0.171	274	0.171	274	0.171
THRU	2.00	3200	993	0.310	1192	0.372	1192	0.372	1192	0.372
RIGHT	1.00	(Free)	19		23		23		23	
WB LEFT	1.00	1600	81	0.051	97	0.061	97	0.061	97	0.061
THRU	2.00	3200	336	0.105	403	0.126	403	0.126	403	0.126
RIGHT	1.00	1600	73	0.046	88	0.055	88	0.055	88	0.055
Intersection Volume			3034		3641		3641		3641	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.595		0.704		0.704		0.704	
Stopped Delay (sec/veh)			5.0		15.4		15.4		15.4	
LEVEL OF SERVICE (LOS)			A		C		C		C	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	1	0	0	0	0	0	0	0	0	0	0	0	1
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	1	0	0	0	0	0	0	0	0	0	0	0	1

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	119	0.074	143	0.089	143	0.089	143	0.089
THRU	2.00	3200	329	0.103	395	0.123	395	0.124	395	0.124
RIGHT	1.00	1600	134	0.084	161	0.101	161	0.101	161	0.101
SB LEFT	1.00	1600	137	0.086	164	0.103	164	0.103	164	0.103
THRU	2.00	3200	269	0.084	323	0.101	323	0.101	323	0.101
RIGHT	1.00	1600	73	0.046	88	0.055	88	0.055	88	0.055
EB LEFT	1.00	1600	134	0.084	161	0.101	161	0.101	161	0.101
THRU	2.00	3200	1293	0.404	1552	0.485	1552	0.485	1552	0.485
RIGHT	1.00	1600	90	0.056	108	0.068	108	0.068	108	0.068
WB LEFT	1.00	1600	81	0.051	97	0.061	97	0.061	97	0.061
THRU	2.00	3200	1019	0.318	1223	0.382	1223	0.382	1223	0.382
RIGHT	1.00	1600	108	0.068	130	0.081	130	0.081	130	0.081
Intersection Volume			3786		4543		4544		4544	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.693		0.822		0.822		0.822	
Stopped Delay (sec/veh)			14.3		28.3		28.3		28.3	
LEVEL OF SERVICE (LOS)			B		D		D		D	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	2	0	0	0	0	0	0	0	0	0	0	0	2
NR	4	0	0	0	0	0	0	0	0	0	0	0	4
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	2	0	0	0	0	0	0	0	0	0	0	0	2
Sum	9	0	0	0	0	0	0	0	0	0	0	0	9

INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.50	2360	277	0.117	332	0.141	333	0.141	333	0.141
THRU	1.50	2400	113	0.080	136	0.097	138	0.099	138	0.099
RIGHT	0.00	0	80	0.000	96	0.000	100	0.000	100	0.000
SB LEFT	0.00	0	95	0.000	114	0.000	114	0.000	114	0.000
THRU	1.00	1600	22	0.073	26	0.088	26	0.088	26	0.088
RIGHT	1.00	1600	15	0.009	18	0.011	18	0.011	18	0.011
EB LEFT	1.00	1600	33	0.021	40	0.025	40	0.025	40	0.025
THRU	2.00	3200	991	0.310	1189	0.372	1189	0.372	1189	0.372
RIGHT	1.00	(Free)	70		84		84		84	
WB LEFT	1.00	1600	50	0.031	60	0.038	60	0.038	60	0.038
THRU	2.00	3200	925	0.289	1110	0.347	1110	0.347	1110	0.347
RIGHT	1.00	1600	172	0.108	206	0.129	208	0.130	208	0.130
Intersection Volume			2843		3412		3421		3421	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.581		0.688		0.688		0.688	
Stopped Delay (sec/veh)			5.0		13.8		13.8		13.8	
LEVEL OF SERVICE (LOS)			A		B		B		B	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	1	0	0	0	0	0	0	0	0	0	0	0	1
ET	7	0	0	0	0	0	0	0	0	0	0	0	7
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	7	0	0	0	0	0	0	0	0	0	0	0	7

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	23	0.014	28	0.017	28	0.017	28	0.017
THRU	2.00	3200	137	0.058	164	0.069	164	0.069	164	0.069
RIGHT	0.00	0	47	0.000	56	0.000	56	0.000	56	0.000
SB LEFT	1.00	1600	187	0.117	224	0.140	224	0.140	224	0.140
THRU	2.00	3200	129	0.077	155	0.093	155	0.093	155	0.093
RIGHT	0.00	0	118	0.000	142	0.000	142	0.000	142	0.000
EB LEFT	1.00	1600	78	0.049	94	0.059	94	0.059	94	0.059
THRU	2.00	3200	927	0.296	1112	0.356	1119	0.358	1119	0.358
RIGHT	0.00	0	21	0.000	25	0.000	25	0.000	25	0.000
WB LEFT	1.00	1600	23	0.014	28	0.017	28	0.017	28	0.017
THRU	3.00	4800	729	0.152	875	0.182	875	0.182	875	0.182
RIGHT	1.00	1600	157	0.098	188	0.118	188	0.118	188	0.118
Intersection Volume			2576		3091		3098		3098	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.535		0.632		0.634		0.634	
Stopped Delay (sec/veh)			5.0		8.2		8.4		8.4	
LEVEL OF SERVICE (LOS)			A		B		B		B	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

P.M. PEAK HOUR

 TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												Sum
	1	2	3	4	5	6	7	8	9	10	11	12	
NL	2	0	0	0	0	0	0	0	0	0	0	0	2
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	2	0	0	0	0	0	0	0	0	0	0	0	2
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	5	0	0	0	0	0	0	0	0	0	0	0	5
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	9	0	0	0	0	0	0	0	0	0	0	0	9

 INTERSECTION LEVEL OF SERVICE (LOS)

- * Scenario: Year 2020 Traffic
- * Geometrics: Existing Geometrics
- * Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2020		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	272	0.170	326	0.204	328	0.205	328	0.205
THRU	2.00	3200	222	0.069	266	0.083	266	0.083	266	0.083
RIGHT	1.00	(Free)	59		71		73		73	
SB LEFT	1.00	1600	34	0.021	41	0.026	41	0.026	41	0.026
THRU	2.00	3200	33	0.010	40	0.012	40	0.012	40	0.012
RIGHT	1.00	(Free)	19		23		23		23	
EB LEFT	1.00	1600	23	0.014	28	0.017	28	0.017	28	0.017
THRU	3.00	4800	955	0.199	1146	0.239	1151	0.240	1151	0.240
RIGHT	1.00	1600	229	0.143	275	0.172	275	0.172	275	0.172
WB LEFT	1.00	1600	8	0.005	10	0.006	10	0.006	10	0.006
THRU	2.00	3200	833	0.260	1000	0.312	1000	0.312	1000	0.312
RIGHT	1.00	1600	150	0.094	180	0.112	180	0.112	180	0.112
Intersection Volume			2837		3404		3414		3414	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.505		0.596		0.597		0.597
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0
LEVEL OF SERVICE (LOS)				A		A		A		A

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.