

## **APPENDIX C**

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### **Traffic Analysis**

## TOSCO REFINERY TRIP GENERATION ESTIMATE

Scenario: **Construction Traffic Impact**

	A.M. Peak Hour		P.M. Peak Hour	
	Inbound	Outbound	Inbound	Outbound
300 worker vehicles/day (7 a.m.-5:30 p.m.)	0	0	0	300
19 trucks/day x 3 PCE* = 57 PCE*/8 hours	7	7	7	7
10 cars and pickups	0	10	10	0
<b>Total:</b>	<b>7</b>	<b>17</b>	<b>17</b>	<b>307</b>

*Note:* PCE = Passenger Car Equivalent

Scenario: **Operational Phase Traffic Impact**

	A.M. Peak Hour		P.M. Peak Hour	
	Inbound	Outbound	Inbound	Outbound
No new worker vehicles/day (8 a.m.-5 p.m.)	0	0	0	0
6 trucks/day x 3 PCE* = 18 PCE*/day				
18 PCE/9 hours (8 a.m.-5 p.m.)	2	2	2	2
<b>Total:</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>

*Note:* PCE = Passenger Car Equivalent





**TOSCO REFINERY  
CONSTRUCTION  
TRAFFIC IMPACTS**

## LEVEL OF SERVICE ANALYSIS

## P.M. PEAK HOUR

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

	Year 2000		Forecast Year 2001			Plus Proposed Project Construction				
	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	+V/C
Figueroa St and Anaheim St	B	10.4	0.654	B	11.1	0.661	B	13.0	0.680	+0.020
Figueroa Pl and Anaheim St	D	26.7	0.812	D	27.9	0.819	D	39.1	0.894	+0.075
Figueroa St and I St./I-110 on ramp	A	5.0	0.560	A	5.0	0.565	B	12.0	0.670	+0.106
Figueroa St and G St./I-110 off ramp	A	5.0	0.328	A	5.0	0.331	A	5.0	0.332	+0.001
Figueroa Pl and I Street/I-110 off ramp	D	31.1	0.841	D	32.3	0.849	D	33.2	0.854	+0.006
Figueroa Pl and I-110 on ramp/G Street	A	5.0	0.303	A	5.0	0.305	A	5.0	0.315	+0.010
Frigate Av and C Street/I-110 off ramp	A	5.0	0.573	A	5.0	0.578	A	5.0	0.578	+0.000
John S Gibson and truck entry/I-110 ramps	A	5.0	0.442	A	5.0	0.446	A	5.0	0.446	+0.000
John S Gibson and Channel St	B	6.2	0.612	B	6.8	0.618	B	6.8	0.618	+0.000
76 Products Lane and Anaheim St	A	5.0	0.439	A	5.0	0.443	A	5.0	0.487	+0.043
Gaffey St and Channel St	C	23.8	0.788	C	24.5	0.795	C	24.9	0.799	+0.004
Gaffey&PVDN/Normandie/Vermont and Anaheim St	B	-	0.700	B	-	0.700	C	-	0.720	+0.020

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



Intersection: **Gaffey Street-Palos Verdes Dr.north-Normandy/Vermont-Anaheim Street**  
 Scenario: **Construction traffic in the year 2001**

**INTERSECTION LEVEL OF SERVICE ANALYSIS**

5-leg1.xls

	<u>LANES</u>	<u>CAPACITY</u>	<u>PHASE NO.</u>	<u>A.M. PEAK HOUR</u>			<u>P.M. PEAK HOUR</u>		
				<u>VOLUME</u>	<u>V/C</u>	<u>CRITICAL</u>	<u>VOLUME</u>	<u>V/C</u>	<u>CRITICAL</u>
<b>Palos Verdes</b>									
NL	1	1800	2	5	0		12	0.01	
NT	4	7200	2	1,376	0.2	0.2	734	0.12	0.12
NR	0		2	73			103		
<b>Gaffey</b>									
NL	1	1600	*	46	0.03	0.03	35	0.02	0.02
NT	2	3600	1	101	0.03		72	0.02	
NR	1		FREE	520			361		
<b>Normandy/Vermont</b>									
SL	1	1600	*	56	0.04		75	0.05	
ST	3	5400	1	581	0.12	0.12	788	0.15	0.15
SR	0		1	47			46		
<b>Anaheim (west leg)</b>									
EL	1	1800	4	35	0.02		33	0.02	
ET	2	3600	4	252	0.12	0.12	299	0.15	0.15
ER	0		4	167			224		
<b>Anaheim (east leg)</b>									
WL	3	5400	3	1,067	0.2	0.2	1,245	0.23	0.23
WT	SHARED			707			826		
WR	SHARED			289			303		
	SHARED			71			116		
<b>LOST TIME:</b>						0.05	0.05		
						<b>SUM=</b>	<b>0.72</b>	<b>SUM=</b>	<b>0.72</b>
						<b>LOS= C</b>		<b>LOS= C</b>	

Note: \* = permissive left turn on through phase.



P.M. PEAK HOUR

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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	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	169	0	0	0	0	0	0	0	0	0	0	0	169
ET	31	0	0	0	0	0	0	0	0	0	0	0	31
ER	15	0	0	0	0	0	0	0	0	0	0	0	15
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	2	0	0	0	0	0	0	0	0	0	0	0	2
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	218	0	0	0	0	0	0	0	0	0	0	0	218

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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	231	0.000	233	0.000	235	0.000	235	0.000
THRU	2.00	3200	122	0.110	123	0.111	123	0.112	123	0.112
RIGHT	1.00	1600	183	0.114	185	0.116	185	0.116	185	0.116
SB LEFT	0.00	0	48	0.000	48	0.000	48	0.000	48	0.000
THRU	2.00	3200	57	0.033	58	0.033	58	0.033	58	0.033
RIGHT	1.00	1600	31	0.019	31	0.020	31	0.020	31	0.020
EB LEFT	1.50	2360	139	0.059	140	0.059	309	0.131	309	0.131
THRU	1.50	2400	770	0.470	778	0.475	808	0.494	808	0.494
RIGHT	0.00	0	359	0.000	363	0.000	378	0.000	378	0.000
WB LEFT	1.00	1600	38	0.024	38	0.024	38	0.024	38	0.024
THRU	2.00	3200	512	0.268	517	0.270	519	0.271	519	0.271
RIGHT	0.00	0	344	0.000	347	0.000	347	0.000	347	0.000
Intersection Volume			2834		2862		3081		3081	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.654		0.661		0.680		0.680	
Stopped Delay (sec/veh)			10.4		11.1		13.0		13.0	
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.



P.M. PEAK HOUR

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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	9	0	0	0	0	0	0	0	0	0	0	0	9
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	215	0	0	0	0	0	0	0	0	0	0	0	215
ER	15	0	0	0	0	0	0	0	0	0	0	0	15
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	3	0	0	0	0	0	0	0	0	0	0	0	3
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	243	0	0	0	0	0	0	0	0	0	0	0	243

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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	6	0.000	6	0.000	6	0.000	6	0.000
THRU	1.00	1600	3	0.006	3	0.006	3	0.006	3	0.006
RIGHT	1.00	1600	22	0.014	22	0.014	22	0.014	22	0.014
SB LEFT	0.00	0	404	0.000	408	0.000	408	0.000	408	0.000
THRU	2.00	3200	67	0.342	68	0.346	68	0.349	68	0.349
RIGHT	0.00	0	624	0.000	630	0.000	640	0.000	640	0.000
EB LEFT	1.00	1600	27	0.017	27	0.017	27	0.017	27	0.017
THRU	2.00	3200	894	0.311	903	0.314	1118	0.386	1118	0.386
RIGHT	0.00	0	102	0.000	103	0.000	118	0.000	118	0.000
WB LEFT	1.00	1600	173	0.108	175	0.109	175	0.109	175	0.109
THRU	2.00	3200	523	0.169	528	0.171	532	0.172	532	0.172
RIGHT	0.00	0	18	0.000	18	0.000	18	0.000	18	0.000
Intersection Volume			2863		2892		3135		3135	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.812		0.819		0.894		0.894	
Stopped Delay (sec/veh)			26.7		27.9		39.1		39.1	
LEVEL OF SERVICE (LOS)			D		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

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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	169	0	0	0	0	0	0	0	0	0	0	0	169
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	169	0	0	0	0	0	0	0	0	0	0	0	169

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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	700	0.438	707	0.442	876	0.547	876	0.547
THRU	1.00	1600	199	0.142	201	0.143	201	0.143	201	0.143
RIGHT	0.00	0	28	0.000	28	0.000	28	0.000	28	0.000
SB LEFT	0.00	0	4	0.000	4	0.000	4	0.000	4	0.000
THRU	2.00	3200	139	0.045	140	0.045	140	0.045	140	0.045
RIGHT	1.00	1600	25	0.016	25	0.016	25	0.016	25	0.016
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	0.00	0	4	0.000	4	0.000	4	0.000	4	0.000
THRU	1.00	1600	24	0.027	24	0.028	24	0.028	24	0.028
RIGHT	0.00	0	16	0.000	16	0.000	16	0.000	16	0.000
Intersection Volume			1139		1150		1319		1319	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.560		0.565		0.670		0.670	
Stopped Delay (sec/veh)			5.0		5.0		12.0		12.0	
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

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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	15	0	0	0	0	0	0	0	0	0	0	0	15
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	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	17	0	0	0	0	0	0	0	0	0	0	0	17

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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	204	0.064	206	0.065	207	0.065	207	0.065
RIGHT	0.00	0	1	0.000	1	0.000	1	0.000	1	0.000
SB LEFT	0.00	0	5	0.000	5	0.000	5	0.000	5	0.000
THRU	2.00	3200	92	0.030	93	0.031	108	0.035	108	0.035
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB LEFT	0.00	0	340	0.000	343	0.000	344	0.000	344	0.000
THRU	1.00	1600	3	0.214	3	0.217	3	0.217	3	0.217
RIGHT	1.00	1600	4	0.002	4	0.003	4	0.003	4	0.003
WB LEFT	0.00	0	2	0.000	2	0.000	2	0.000	2	0.000
THRU	1.00	1600	0	0.013	0	0.013	0	0.013	0	0.013
RIGHT	0.00	0	19	0.000	19	0.000	19	0.000	19	0.000
Intersection Volume			670		677		694		694	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.328		0.331		0.332		0.332	
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

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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	9	0	0	0	0	0	0	0	0	0	0	0	9
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

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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	1	0.000	1	0.000	1	0.000	1	0.000
THRU	1.00	1600	53	0.034	54	0.034	54	0.034	54	0.034
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
SB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	1.00	1600	118	0.084	119	0.085	119	0.085	119	0.085
RIGHT	0.00	0	17	0.000	17	0.000	17	0.000	17	0.000
EB LEFT	0.00	0	6	0.000	6	0.000	6	0.000	6	0.000
THRU	1.00	1600	0	0.006	0	0.006	0	0.006	0	0.006
RIGHT	0.00	0	3	0.000	3	0.000	3	0.000	3	0.000
WB LEFT	1.00	1600	1121	0.701	1132	0.708	1142	0.713	1142	0.713
THRU	1.00	1600	58	0.099	59	0.100	59	0.100	59	0.100
RIGHT	0.00	0	101	0.000	102	0.000	102	0.000	102	0.000
Intersection Volume			1478		1493		1502		1502	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.841		0.849		0.854		0.854	
Stopped Delay (sec/veh)			31.1		32.3		33.2		33.2	
LEVEL OF SERVICE (LOS)			D		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

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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	15	0	0	0	0	0	0	0	0	0	0	0	15
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	15	0	0	0	0	0	0	0	0	0	0	0	15

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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	1	0.000	1	0.000	1	0.000	1	0.000
THRU	1.00	1600	20	0.013	20	0.013	20	0.013	20	0.013
RIGHT	1.00	1600	0	0.000	0	0.000	0	0.000	0	0.000
SB LEFT	0.00	0	342	0.000	345	0.000	361	0.000	361	0.000
THRU	1.00	1600	38	0.248	38	0.250	38	0.260	38	0.260
RIGHT	0.00	0	16	0.000	16	0.000	16	0.000	16	0.000
EB LEFT	0.00	0	6	0.000	6	0.000	6	0.000	6	0.000
THRU	1.00	1600	1	0.005	1	0.005	1	0.005	1	0.005
RIGHT	0.00	0	1	0.000	1	0.000	1	0.000	1	0.000
WB 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
Intersection Volume			425		429		445		445	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.303		0.305		0.315		0.315	
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

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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	15	0	0	0	0	0	0	0	0	0	0	0	15
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	16	0	0	0	0	0	0	0	0	0	0	0	16

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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	242	0.151	244	0.153	244	0.153	244	0.153
THRU	2.00	3200	102	0.036	103	0.036	104	0.036	104	0.036
RIGHT	0.00	0	12	0.000	12	0.000	12	0.000	12	0.000
SB LEFT	1.00	1600	18	0.011	18	0.011	34	0.021	34	0.021
THRU	2.00	3200	80	0.025	81	0.025	81	0.025	81	0.025
RIGHT	1.00	1600	43	0.027	43	0.027	43	0.027	43	0.027
EB LEFT	1.30	2056	36	0.018	36	0.018	36	0.018	36	0.018
THRU	0.40	640	222	0.347	224	0.350	224	0.350	224	0.350
RIGHT	1.30	2056	119	0.058	120	0.058	120	0.058	120	0.058
WB LEFT	0.00	0	10	0.000	10	0.000	10	0.000	10	0.000
THRU	1.00	1600	155	0.103	157	0.104	157	0.104	157	0.104
RIGHT	1.00	1600	25	0.016	25	0.016	25	0.016	25	0.016
Intersection Volume			1064		1075		1091		1091	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.573		0.578		0.578		0.578
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

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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

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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	2.00	3120	430	0.138	434	0.139	435	0.139	435	0.139
THRU	2.00	3200	473	0.154	478	0.156	478	0.156	478	0.156
RIGHT	0.00	0	20	0.000	20	0.000	20	0.000	20	0.000
SB LEFT	1.00	1600	44	0.027	44	0.028	44	0.028	44	0.028
THRU	2.00	3200	574	0.179	580	0.181	580	0.181	580	0.181
RIGHT	1.00	1600	18	0.011	18	0.011	18	0.011	18	0.011
EB LEFT	0.00	0	18	0.000	18	0.000	18	0.000	18	0.000
THRU	0.00	0	28	0.000	28	0.000	28	0.000	28	0.000
RIGHT	0.00	0	12	0.000	12	0.000	12	0.000	12	0.000
WB LEFT	0.00	0	49	0.000	49	0.000	49	0.000	49	0.000
THRU	2.00	3200	76	0.075	77	0.076	77	0.076	77	0.076
RIGHT	0.00	0	115	0.000	116	0.000	116	0.000	116	0.000
Intersection Volume			1857		1876		1876		1876	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.442		0.446		0.446		0.446
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

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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

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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	378	0.236	382	0.239	382	0.239	382	0.239
THRU	2.00	3200	410	0.128	414	0.129	414	0.129	414	0.129
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
SB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	2.00	3200	370	0.116	374	0.117	374	0.117	374	0.117
RIGHT	1.00	1600	254	0.159	257	0.160	257	0.160	257	0.160
EB LEFT	2.00	3120	657	0.211	664	0.213	664	0.213	664	0.213
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	554	0.346	560	0.350	560	0.350	560	0.350
WB 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
Intersection Volume			2623		2649		2650		2650	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.612		0.618		0.618		0.618	
Stopped Delay (sec/veh)			6.2		6.8		6.8		6.8	
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

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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	230	0	0	0	0	0	0	0	0	0	0	0	230
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	13	0	0	0	0	0	0	0	0	0	0	0	13
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	243	0	0	0	0	0	0	0	0	0	0	0	243

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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	13	0.008	13	0.008	13	0.008	13	0.008
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	65	0.041	66	0.041	66	0.041	66	0.041
SB 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
EB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	2.00	3200	1065	0.333	1076	0.336	1306	0.408	1306	0.408
RIGHT	1.00	1600	9	0.006	9	0.006	9	0.006	9	0.006
WB LEFT	1.00	1600	32	0.020	32	0.020	32	0.020	32	0.020
THRU	2.00	3200	1220	0.381	1232	0.385	1245	0.389	1245	0.389
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
Intersection Volume			2404		2428		2671		2671	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.439		0.443		0.487		0.487
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

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 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	6	0	0	0	0	0	0	0	0	0	0	0	6
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	6	0	0	0	0	0	0	0	0	0	0	0	6

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 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	438	0.274	442	0.276	449	0.280	449	0.280
THRU	2.00	3200	858	0.268	867	0.271	867	0.271	867	0.271
RIGHT	1.00	1600	253	0.158	256	0.160	256	0.160	256	0.160
SB LEFT	1.50	2360	493	0.209	498	0.211	498	0.211	498	0.211
THRU	1.50	2400	639	0.266	645	0.269	645	0.269	645	0.269
RIGHT	1.00	1600	43	0.027	43	0.027	43	0.027	43	0.027
EB LEFT	0.00	0	45	0.000	45	0.000	45	0.000	45	0.000
THRU	2.00	3200	270	0.098	273	0.099	273	0.100	273	0.100
RIGHT	1.00	1600	183	0.114	185	0.116	185	0.116	185	0.116
WB LEFT	1.00	1600	159	0.099	161	0.100	161	0.100	161	0.100
THRU	2.00	3200	138	0.043	139	0.044	139	0.044	139	0.044
RIGHT	1.00	1600	284	0.177	287	0.179	287	0.179	287	0.179
Intersection Volume			3803		3841		3848		3848	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.788		0.795		0.799		0.799	
Stopped Delay (sec/veh)			23.8		24.5		24.9		24.9	
LEVEL OF SERVICE (LOS)			C		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.

**TOSCO REFINERY**  
*OPERATIONAL PHASE*  
**TRAFFIC IMPACTS**

LEVEL OF SERVICE ANALYSIS

C:\toscoao.ivc

A.M. PEAK HOUR

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

	Year 2000		Forecast Year 2000		Plus Proposed Project			
	LOS	DELAY V/C	LOS	DELAY V/C	LOS	DELAY	V/C	+ V/C
Figueroa St and Anaheim St	D	33.2 0.855	D	33.2 0.855	D	33.0	0.856	+0.001
Figueroa Pl and Anaheim St	C	23.9 0.789	D	23.9 0.789	C	24.0	0.790	+0.001
Figueroa St and I St/I-110 on ramp	D	36.3 0.875	D	36.3 0.875	D	36.4	0.876	+0.001
Figueroa St and G St/I-110 off ramp	A	5.0 0.320	A	5.0 0.320	A	5.0	0.320	+0.000
Figueroa Pl and I Street/I-110 off ramp	A	5.0 0.466	A	5.0 0.466	A	5.0	0.467	+0.001
Figueroa Pl and I-110 on ramp/G Street	A	5.0 0.288	A	5.0 0.288	A	5.0	0.288	+0.000
Frigate Av and C Street/I-110 off ramp	A	5.0 0.416	A	5.0 0.416	A	5.0	0.416	+0.000
John S Gibson and truck entry/I-110 ramps	A	5.0 0.583	A	5.0 0.583	A	5.0	0.583	+0.000
John S Gibson and Channel St	C	22.6 0.776	C	22.6 0.776	C	22.8	0.776	+0.000
76 Products Lane and Anaheim St	A	5.0 0.505	A	5.0 0.505	A	5.0	0.506	+0.001
Gaffey St and Channel St	C	22.8 0.778	C	22.8 0.778	C	22.8	0.778	+0.000
Gaffey&PVDN/Normandie/Vermont and Anaheim St	C	- 0.720	C	- 0.720	C	-	0.720	+0.000

Notes:

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



Intersection: **Gaffey Street-Palos Verdes Dr.north-Normandy/Vermont-Anaheim Street**  
 Scenario: **Operational Phase Traffic Impacts in Year 2000**

**INTERSECTION LEVEL OF SERVICE ANALYSIS**

5-leg.xls

	<u>LANES</u>	<u>CAPACITY</u>	<u>PHASE NO.</u>	<u>A.M. PEAK HOUR</u>			<u>P.M. PEAK HOUR</u>		
				<u>VOLUME</u>	<u>V/C</u>	<u>CRITICAL</u>	<u>VOLUME</u>	<u>V/C</u>	<u>CRITICAL</u>
<b>Palos Verdes</b>									
NL	1	1800	2	5	0.00		12	0.01	
NT	4	7200	2	1,376	0.20	0.20	734	0.12	0.12
NR	0		2	73			102		
<b>Gaffey</b>									
NL	1	1600	*	46	0.03	0.03	35	0.02	0.02
NT	2	3600	1	101	0.03		72	0.02	
NR	1		FREE	520			361		
<b>Normandy/Vermont</b>									
SL	1	1600	*	56	0.04		73	0.05	
ST	3	5400	1	581	0.12	0.12	788	0.15	0.15
SR	0		1	47			46		
<b>Anaheim (west leg)</b>									
EL	1	1800	4	35	0.02		33	0.02	
ET	2	3600	4	252	0.12	0.12	297	0.14	0.14
ER	0		4	167			224		
<b>Anaheim (east leg)</b>									
WL	3	5400	3	1,067	0.20	0.20	1,168	0.22	0.22
WT	SHARED			707			811		
WR	SHARED			289			272		
				71			85		
<b>LOST TIME:</b>						0.05	0.05		
						<b>SUM=</b>	<b>0.72</b>	<b>SUM=</b>	<b>0.70</b>
						<b>LOS=</b>	<b>C</b>	<b>LOS=</b>	<b>B/C</b>

Note: \* = permissive left turn on through phase.



A.M. PEAK HOUR

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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	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	2	0	0	0	0	0	0	0	0	0	0	0	2

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INTERSECTION LEVEL OF SERVICE (LOS)

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

Movement	Lanes	Capacity	Year 2000		Forecast Year 2000		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	0.00	0	203	0.000	203	0.000	203	0.000	203	0.000
THRU	2.00	3200	192	0.123	192	0.123	192	0.124	192	0.124
RIGHT	1.00	1600	233	0.146	233	0.146	233	0.146	233	0.146
SB LEFT	0.00	0	22	0.000	22	0.000	22	0.000	22	0.000
THRU	2.00	3200	45	0.021	45	0.021	45	0.021	45	0.021
RIGHT	1.00	1600	57	0.036	57	0.036	57	0.036	57	0.036
EB LEFT	1.50	2360	1000	0.424	1000	0.424	1001	0.424	1001	0.424
THRU	1.50	2400	681	0.307	681	0.307	681	0.307	681	0.307
RIGHT	0.00	0	55	0.000	55	0.000	55	0.000	55	0.000
WB LEFT	1.00	1600	48	0.030	48	0.030	48	0.030	48	0.030
THRU	2.00	3200	616	0.258	616	0.258	616	0.258	616	0.258
RIGHT	0.00	0	209	0.000	209	0.000	209	0.000	209	0.000
Intersection Volume			3361		3361		3363		3363	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.855		0.855		0.856		0.856	
Stopped Delay (sec/veh)			33.2		33.2		33.3		33.3	
LEVEL OF SERVICE (LOS)			D		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.

A.M. PEAK HOUR

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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	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	3	0	0	0	0	0	0	0	0	0	0	0	3

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INTERSECTION LEVEL OF SERVICE (LOS)

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

Movement	Lanes	Capacity	Year 2000		Forecast Year 2000		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	0.00	0	9	0.000	9	0.000	9	0.000	9	0.000
THRU	1.00	1600	2	0.007	2	0.007	2	0.007	2	0.007
RIGHT	1.00	1600	38	0.024	38	0.024	38	0.024	38	0.024
SB LEFT	0.00	0	288	0.000	288	0.000	288	0.000	288	0.000
THRU	2.00	3200	23	0.194	23	0.194	23	0.195	23	0.195
RIGHT	0.00	0	311	0.000	311	0.000	311	0.000	311	0.000
EB LEFT	1.00	1600	62	0.039	62	0.039	62	0.039	62	0.039
THRU	2.00	3200	1218	0.421	1218	0.421	1219	0.421	1219	0.421
RIGHT	0.00	0	129	0.000	129	0.000	129	0.000	129	0.000
WB LEFT	1.00	1600	198	0.124	198	0.124	198	0.124	198	0.124
THRU	2.00	3200	563	0.184	563	0.184	563	0.184	563	0.184
RIGHT	0.00	0	26	0.000	26	0.000	26	0.000	26	0.000
Intersection Volume			2867		2867		2870		2870	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.789		0.789		0.790		0.790	
Stopped Delay (sec/veh)			23.9		23.9		24.0		24.0	
LEVEL OF SERVICE (LOS)			C		C		D		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

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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	0	1
NT	0	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	0
SL	0	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	0
SR	0	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	0
ET	0	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	0
WL	0	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	0
WR	0	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	0	1

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INTERSECTION LEVEL OF SERVICE (LOS)

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

Movement	Lanes	Capacity	Year 2000		Forecast Year 2000		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	1126	0.704	1126	0.704	1127	0.704	1127	0.704
THRU	1.00	1600	115	0.078	115	0.078	115	0.078	115	0.078
RIGHT	0.00	0	10	0.000	10	0.000	10	0.000	10	0.000
SB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	2.00	3200	92	0.029	92	0.029	92	0.029	92	0.029
RIGHT	1.00	1600	24	0.015	24	0.015	24	0.015	24	0.015
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	0.00	0	13	0.000	13	0.000	13	0.000	13	0.000
THRU	1.00	1600	124	0.093	124	0.093	124	0.093	124	0.093
RIGHT	0.00	0	11	0.000	11	0.000	11	0.000	11	0.000
Intersection Volume			1515		1515		1516		1516	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.875		0.875		0.876		0.876	
Stopped Delay (sec/veh)			36.3		36.3		36.4		36.4	
LEVEL OF SERVICE (LOS)			D		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.

A.M. PEAK HOUR

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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

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INTERSECTION LEVEL OF SERVICE (LOS)

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

Movement	Lanes	Capacity	Year 2000		Forecast Year 2000		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	160	0.050	160	0.050	160	0.050	160	0.050
RIGHT	0.00	0	1	0.000	1	0.000	1	0.000	1	0.000
SB LEFT	0.00	0	4	0.000	4	0.000	4	0.000	4	0.000
THRU	2.00	3200	128	0.041	128	0.041	128	0.041	128	0.041
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB LEFT	0.00	0	351	0.000	351	0.000	351	0.000	351	0.000
THRU	1.00	1600	1	0.220	1	0.220	1	0.220	1	0.220
RIGHT	1.00	1600	3	0.002	3	0.002	3	0.002	3	0.002
WB LEFT	0.00	0	3	0.000	3	0.000	3	0.000	3	0.000
THRU	1.00	1600	0	0.025	0	0.025	0	0.025	0	0.025
RIGHT	0.00	0	37	0.000	37	0.000	37	0.000	37	0.000
Intersection Volume			688		688		688		688	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.320		0.320		0.320		0.320	
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

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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	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

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INTERSECTION LEVEL OF SERVICE (LOS)

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

Movement	Lanes	Capacity	Year 2000		Forecast Year 2000		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	0.00	0	2	0.000	2	0.000	2	0.000	2	0.000
THRU	1.00	1600	63	0.041	63	0.041	63	0.041	63	0.041
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
SB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	1.00	1600	35	0.026	35	0.026	35	0.026	35	0.026
RIGHT	0.00	0	6	0.000	6	0.000	6	0.000	6	0.000
EB LEFT	0.00	0	13	0.000	13	0.000	13	0.000	13	0.000
THRU	1.00	1600	0	0.012	0	0.012	0	0.012	0	0.012
RIGHT	0.00	0	6	0.000	6	0.000	6	0.000	6	0.000
WB LEFT	1.00	1600	582	0.364	582	0.364	583	0.364	583	0.364
THRU	1.00	1600	44	0.079	44	0.079	44	0.079	44	0.079
RIGHT	0.00	0	82	0.000	82	0.000	82	0.000	82	0.000
Intersection Volume			833		833		834		834	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.466		0.466		0.467		0.467	
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

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 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

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 INTERSECTION LEVEL OF SERVICE (LOS)

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

Movement	Lanes	Capacity	Year 2000		Forecast Year 2000		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	25	0.016	25	0.016	25	0.016	25	0.016
RIGHT	1.00	1600	1	0.001	1	0.001	1	0.001	1	0.001
SB LEFT	0.00	0	350	0.000	350	0.000	350	0.000	350	0.000
THRU	1.00	1600	16	0.233	16	0.233	16	0.233	16	0.233
RIGHT	0.00	0	7	0.000	7	0.000	7	0.000	7	0.000
EB LEFT	0.00	0	8	0.000	8	0.000	8	0.000	8	0.000
THRU	1.00	1600	0	0.005	0	0.005	0	0.005	0	0.005
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
WB 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
Intersection Volume			407		407		407		407	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.288		0.288		0.288		0.288	
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

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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

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INTERSECTION LEVEL OF SERVICE (LOS)

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

Movement	Lanes	Capacity	Year 2000		Forecast Year 2000		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	101	0.063	101	0.063	101	0.063	101	0.063
THRU	2.00	3200	77	0.027	77	0.027	77	0.027	77	0.027
RIGHT	0.00	0	8	0.000	8	0.000	8	0.000	8	0.000
SB LEFT	1.00	1600	7	0.004	7	0.004	7	0.004	7	0.004
THRU	2.00	3200	99	0.031	99	0.031	99	0.031	99	0.031
RIGHT	1.00	1600	48	0.030	48	0.030	48	0.030	48	0.030
EB LEFT	1.30	2056	72	0.035	72	0.035	72	0.035	72	0.035
THRU	0.40	640	174	0.272	174	0.272	174	0.272	174	0.272
RIGHT	1.30	2056	252	0.123	252	0.123	252	0.123	252	0.123
WB LEFT	0.00	0	16	0.000	16	0.000	16	0.000	16	0.000
THRU	1.00	1600	122	0.086	122	0.086	122	0.086	122	0.086
RIGHT	1.00	1600	23	0.014	23	0.014	23	0.014	23	0.014
Intersection Volume			999		999		999		999	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.416		0.416		0.416		0.416	
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

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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

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INTERSECTION LEVEL OF SERVICE (LOS)

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

Movement	Lanes	Capacity	Year 2000		Forecast Year 2000		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	2.00	3120	1212	0.388	1212	0.388	1212	0.388	1212	0.388
THRU	2.00	3200	548	0.189	548	0.189	548	0.189	548	0.189
RIGHT	0.00	0	57	0.000	57	0.000	57	0.000	57	0.000
SB LEFT	1.00	1600	193	0.121	193	0.121	193	0.121	193	0.121
THRU	2.00	3200	356	0.111	356	0.111	356	0.111	356	0.111
RIGHT	1.00	1600	12	0.007	12	0.007	12	0.007	12	0.007
EB LEFT	0.00	0	17	0.000	17	0.000	17	0.000	17	0.000
THRU	0.00	0	21	0.000	21	0.000	21	0.000	21	0.000
RIGHT	0.00	0	7	0.000	7	0.000	7	0.000	7	0.000
WB LEFT	0.00	0	20	0.000	20	0.000	20	0.000	20	0.000
THRU	2.00	3200	54	0.033	54	0.033	54	0.033	54	0.033
RIGHT	0.00	0	33	0.000	33	0.000	33	0.000	33	0.000
Intersection Volume			2530		2530		2530		2530	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.583		0.583		0.583		0.583	
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

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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

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INTERSECTION LEVEL OF SERVICE (LOS)

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

Movement	Lanes	Capacity	Year 2000		Forecast Year 2000		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	327	0.204	327	0.204	327	0.204	327	0.204
THRU	2.00	3200	673	0.210	673	0.210	673	0.210	673	0.210
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
SB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	2.00	3200	279	0.087	279	0.087	279	0.087	279	0.087
RIGHT	1.00	1600	207	0.129	207	0.129	207	0.129	207	0.129
EB LEFT	2.00	3120	1356	0.435	1356	0.435	1356	0.435	1356	0.435
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	397	0.248	397	0.248	397	0.248	397	0.248
WB 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
Intersection Volume			3239		3239		3239		3239	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.776		0.776		0.776		0.776	
Stopped Delay (sec/veh)			22.6		22.6		22.6		22.6	
LEVEL OF SERVICE (LOS)			C		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	1	0	0	0	0	0	0	0	0	0	0	0	1
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	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	2	0	0	0	0	0	0	0	0	0	0	0	2
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
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2000		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	2	0.001	2	0.001	3	0.002	3	0.002
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	12	0.007	12	0.008	14	0.008	14	0.008
SB 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
EB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	2.00	3200	1395	0.436	1395	0.436	1395	0.436	1395	0.436
RIGHT	1.00	1600	4	0.002	4	0.002	5	0.003	5	0.003
WB LEFT	1.00	1600	28	0.018	28	0.018	30	0.018	30	0.018
THRU	2.00	3200	911	0.285	911	0.285	911	0.285	911	0.285
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
Intersection Volume			2352		2352		2356		2356	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.505		0.505		0.506		0.506	
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

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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

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INTERSECTION LEVEL OF SERVICE (LOS)

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

Movement	Lanes	Capacity	Year 2000		Forecast Year 2000		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	212	0.132	212	0.132	212	0.133	212	0.133
THRU	2.00	3200	890	0.278	890	0.278	890	0.278	890	0.278
RIGHT	1.00	1600	408	0.255	408	0.255	408	0.255	408	0.255
SB LEFT	1.50	2360	565	0.239	565	0.239	565	0.239	565	0.239
THRU	1.50	2400	543	0.226	543	0.226	543	0.226	543	0.226
RIGHT	1.00	1600	39	0.024	39	0.024	39	0.024	39	0.024
EB LEFT	0.00	0	40	0.000	40	0.000	40	0.000	40	0.000
THRU	2.00	3200	447	0.152	447	0.152	447	0.152	447	0.152
RIGHT	1.00	1600	216	0.135	216	0.135	216	0.135	216	0.135
WB LEFT	1.00	1600	93	0.058	93	0.058	93	0.058	93	0.058
THRU	2.00	3200	83	0.026	83	0.026	83	0.026	83	0.026
RIGHT	1.00	1600	278	0.174	278	0.174	278	0.174	278	0.174
Intersection Volume			3814		3814		3814		3814	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.778		0.778		0.778		0.778	
Stopped Delay (sec/veh)			22.8		22.8		22.8		22.8	
LEVEL OF SERVICE (LOS)			C		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.

LEVEL OF SERVICE ANALYSIS

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P.M. PEAK HOUR

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

	Year 2000		Forecast Year 2000		Plus Proposed Project Operation			
	LOS	DELAY V/C	LOS	DELAY V/C	LOS	DELAY	V/C	+ V/C
Figueroa St and Anaheim St	B	10.4 0.654	B	10.4 0.654	B	10.5	0.655	+0.000
Figueroa Pl and Anaheim St	D	26.7 0.812	D	26.7 0.812	D	26.9	0.812	+0.001
Figueroa St and I St./I-110 on ramp	A	5.0 0.560	A	5.0 0.560	A	5.0	0.560	+0.001
Figueroa St and G St./I-110 off ramp	A	5.0 0.328	A	5.0 0.328	A	5.0	0.329	+0.000
Figueroa Pl and I Street/I-110 off ramp	D	31.1 0.841	D	31.1 0.841	D	31.2	0.841	+0.001
Figueroa Pl and I-110 on ramp/G Street	A	5.0 0.303	A	5.0 0.303	A	5.0	0.303	+0.000
Frigate Av and C Street/I-110 off ramp	A	5.0 0.573	A	5.0 0.573	A	5.0	0.573	+0.000
John S Gibson and truck entry/I-110 ramps	A	5.0 0.442	A	5.0 0.442	A	5.0	0.442	+0.000
John S Gibson and Channel St	B	6.2 0.612	B	6.2 0.612	B	6.2	0.612	+0.000
76 Products Lane and Anaheim St	A	5.0 0.439	A	5.0 0.439	A	5.0	0.440	+0.000
Gaffey St and Channel St	C	23.8 0.788	D	23.8 0.788	D	23.8	0.788	+0.000
Gaffey&PVDN/Normandie/Vermont and Anaheim St	B/C	- 0.700	B/C	- 0.700	B/C	-	0.700	+0.000

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	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	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	2	0	0	0	0	0	0	0	0	0	0	0	2

INTERSECTION LEVEL OF SERVICE (LOS)

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

Movement	Lanes	Capacity	Year 2000		Forecast Year 2000		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	0.00	0	231	0.000	231	0.000	231	0.000	231	0.000
THRU	2.00	3200	122	0.110	122	0.110	122	0.110	122	0.110
RIGHT	1.00	1600	183	0.114	183	0.114	183	0.114	183	0.114
SB LEFT	0.00	0	48	0.000	48	0.000	48	0.000	48	0.000
THRU	2.00	3200	57	0.033	57	0.033	57	0.033	57	0.033
RIGHT	1.00	1600	31	0.019	31	0.019	31	0.019	31	0.019
EB LEFT	1.50	2360	139	0.059	139	0.059	140	0.059	140	0.059
THRU	1.50	2400	770	0.470	770	0.470	770	0.471	770	0.471
RIGHT	0.00	0	359	0.000	359	0.000	359	0.000	359	0.000
WB LEFT	1.00	1600	38	0.024	38	0.024	38	0.024	38	0.024
THRU	2.00	3200	512	0.268	512	0.268	512	0.268	512	0.268
RIGHT	0.00	0	344	0.000	344	0.000	344	0.000	344	0.000
Intersection Volume			2834		2834		2836		2836	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.654		0.654		0.655		0.655	
Stopped Delay (sec/veh)			10.4		10.4		10.5		10.5	
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

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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	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	3	0	0	0	0	0	0	0	0	0	0	0	3

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INTERSECTION LEVEL OF SERVICE (LOS)

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

Movement	Lanes	Capacity	Year 2000		Forecast Year 2000		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	0.00	0	6	0.000	6	0.000	6	0.000	6	0.000
THRU	1.00	1600	3	0.006	3	0.006	3	0.006	3	0.006
RIGHT	1.00	1600	22	0.014	22	0.014	22	0.014	22	0.014
SB LEFT	0.00	0	404	0.000	404	0.000	404	0.000	404	0.000
THRU	2.00	3200	67	0.342	67	0.342	67	0.343	67	0.343
RIGHT	0.00	0	624	0.000	624	0.000	625	0.000	625	0.000
EB LEFT	1.00	1600	27	0.017	27	0.017	27	0.017	27	0.017
THRU	2.00	3200	894	0.311	894	0.311	895	0.311	895	0.311
RIGHT	0.00	0	102	0.000	102	0.000	102	0.000	102	0.000
WB LEFT	1.00	1600	173	0.108	173	0.108	173	0.108	173	0.108
THRU	2.00	3200	523	0.169	523	0.169	523	0.169	523	0.169
RIGHT	0.00	0	18	0.000	18	0.000	18	0.000	18	0.000
Intersection Volume			2863		2863		2863		2863	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.812		0.812		0.812		0.812	
Stopped Delay (sec/veh)			26.7		26.7		26.9		26.9	
LEVEL OF SERVICE (LOS)			D		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

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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	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	1	0	0	0	0	0	0	0	0	0	0	0	1

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INTERSECTION LEVEL OF SERVICE (LOS)

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

Movement	Lanes	Capacity	Year 2000		Forecast Year 2000		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	700	0.438	700	0.451	701	0.451	701	0.451
THRU	1.00	1600	199	0.142	199	0.142	199	0.142	199	0.142
RIGHT	0.00	0	28	0.000	28	0.000	28	0.000	28	0.000
SB LEFT	0.00	0	4	0.000	4	0.000	4	0.000	4	0.000
THRU	2.00	3200	139	0.045	139	0.045	139	0.045	139	0.045
RIGHT	1.00	1600	25	0.016	25	0.016	25	0.016	25	0.016
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	0.00	0	4	0.000	4	0.000	4	0.000	4	0.000
THRU	1.00	1600	24	0.027	24	0.027	24	0.027	24	0.027
RIGHT	0.00	0	16	0.000	16	0.000	16	0.000	16	0.000
Intersection Volume			1139		1139		1140		1140	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.560		0.560		0.560		0.560	
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

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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

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INTERSECTION LEVEL OF SERVICE (LOS)

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

Movement	Lanes	Capacity	Year 2000		Forecast Year 2000		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	204	0.064	204	0.064	204	0.064	204	0.064
RIGHT	0.00	0	1	0.000	1	0.000	1	0.000	1	0.000
SB LEFT	0.00	0	5	0.000	5	0.000	5	0.000	5	0.000
THRU	2.00	3200	92	0.030	92	0.030	92	0.030	92	0.030
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB LEFT	0.00	0	340	0.000	340	0.000	340	0.000	340	0.000
THRU	1.00	1600	3	0.214	3	0.214	3	0.214	3	0.214
RIGHT	1.00	1600	4	0.002	4	0.002	4	0.002	4	0.002
WB LEFT	0.00	0	2	0.000	2	0.000	2	0.000	2	0.000
THRU	1.00	1600	0	0.013	0	0.013	0	0.013	0	0.013
RIGHT	0.00	0	19	0.000	19	0.000	19	0.000	19	0.000
Intersection Volume			670		670		670		670	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.328		0.328		0.329		0.329	
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

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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	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

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INTERSECTION LEVEL OF SERVICE (LOS)

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

Movement	Lanes	Capacity	Year 2000		Forecast Year 2000		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	53	0.034	53	0.034	53	0.034	53	0.034
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
SB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	1.00	1600	118	0.084	118	0.084	118	0.084	118	0.084
RIGHT	0.00	0	17	0.000	17	0.000	17	0.000	17	0.000
EB LEFT	0.00	0	6	0.000	6	0.000	6	0.000	6	0.000
THRU	1.00	1600	0	0.006	0	0.006	0	0.006	0	0.006
RIGHT	0.00	0	3	0.000	3	0.000	3	0.000	3	0.000
WB LEFT	1.00	1600	1121	0.701	1121	0.701	1122	0.701	1122	0.701
THRU	1.00	1600	58	0.099	58	0.099	58	0.099	58	0.099
RIGHT	0.00	0	101	0.000	101	0.000	101	0.000	101	0.000
Intersection Volume			1478		1478		1479		1479	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.841		0.841		0.841		0.841	
Stopped Delay (sec/veh)			31.1		31.1		31.2		31.2	
LEVEL OF SERVICE (LOS)			D		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

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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

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INTERSECTION LEVEL OF SERVICE (LOS)

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

Movement	Lanes	Capacity	Year 2000		Forecast Year 2000		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	20	0.013	20	0.013	20	0.013	20	0.013
RIGHT	1.00	1600	0	0.000	0	0.000	0	0.000	0	0.000
SB LEFT	0.00	0	342	0.000	342	0.000	342	0.000	342	0.000
THRU	1.00	1600	38	0.248	38	0.248	38	0.248	38	0.248
RIGHT	0.00	0	16	0.000	16	0.000	16	0.000	16	0.000
EB LEFT	0.00	0	6	0.000	6	0.000	6	0.000	6	0.000
THRU	1.00	1600	1	0.005	1	0.005	1	0.005	1	0.005
RIGHT	0.00	0	1	0.000	1	0.000	1	0.000	1	0.000
WB 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
Intersection Volume			425		425		425		425	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.303		0.303		0.303		0.303	
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

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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

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INTERSECTION LEVEL OF SERVICE (LOS)

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

Movement	Lanes	Capacity	Year 2000		Forecast Year 2000		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	242	0.151	242	0.151	242	0.151	242	0.151
THRU	2.00	3200	102	0.036	102	0.036	102	0.036	102	0.036
RIGHT	0.00	0	12	0.000	12	0.000	12	0.000	12	0.000
SB LEFT	1.00	1600	18	0.011	18	0.011	18	0.011	18	0.011
THRU	2.00	3200	80	0.025	80	0.025	80	0.025	80	0.025
RIGHT	1.00	1600	43	0.027	43	0.027	43	0.027	43	0.027
EB LEFT	1.30	2056	36	0.018	36	0.018	36	0.018	36	0.018
THRU	0.40	640	222	0.347	222	0.347	222	0.347	222	0.347
RIGHT	1.30	2056	119	0.058	119	0.058	119	0.058	119	0.058
WB LEFT	0.00	0	10	0.000	10	0.000	10	0.000	10	0.000
THRU	1.00	1600	155	0.103	155	0.103	155	0.103	155	0.1035
RIGHT	1.00	1600	25	0.016	25	0.016	25	0.016	25	0.016
Intersection Volume			1064		1064		1064		1064	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.573		0.573		0.573		0.573	
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

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 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

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 INTERSECTION LEVEL OF SERVICE (LOS)

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

Movement	Lanes	Capacity	Year 2000		Forecast Year 2000		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	2.00	3120	430	0.138	430	0.138	430	0.138	430	0.138
THRU	2.00	3200	473	0.154	483	0.154	483	0.154	483	0.154
RIGHT	0.00	0	20	0.000	20	0.000	20	0.000	20	0.000
SB LEFT	1.00	1600	44	0.027	44	0.027	44	0.027	44	0.027
THRU	2.00	3200	574	0.179	574	0.179	574	0.179	574	0.179
RIGHT	1.00	1600	18	0.011	18	0.011	18	0.011	18	0.012
EB LEFT	0.00	0	18	0.000	18	0.000	18	0.000	18	0.000
THRU	0.00	0	28	0.000	28	0.000	28	0.000	28	0.000
RIGHT	0.00	0	12	0.000	12	0.000	12	0.000	12	0.000
WB LEFT	0.00	0	49	0.000	49	0.000	49	0.000	49	0.000
THRU	2.00	3200	76	0.075	76	0.075	76	0.075	76	0.075
RIGHT	0.00	0	115	0.000	115	0.000	115	0.000	115	0.000
Intersection Volume			1857		1857		1857		1857	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.442		0.442		0.442		0.442	
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

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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

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INTERSECTION LEVEL OF SERVICE (LOS)

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

Movement	Lanes	Capacity	Year 2000		Forecast Year 2000		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	378	0.236	378	0.236	378	0.236	378	0.236
THRU	2.00	3200	410	0.128	410	0.128	410	0.128	410	0.128
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
SB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	2.00	3200	370	0.116	370	0.116	370	0.116	370	0.116
RIGHT	1.00	1600	254	0.159	254	0.159	254	0.159	254	0.159
EB LEFT	2.00	3120	657	0.211	657	0.211	657	0.211	657	0.211
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	554	0.346	554	0.346	554	0.346	554	0.346
WB 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
Intersection Volume			2623		2623		2623		2623	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.612		0.612		0.612		0.612	
Stopped Delay (sec/veh)			6.2		6.2		6.2		6.2	
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	1	0	0	0	0	0	0	0	0	0	0	0	1
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	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	2	0	0	0	0	0	0	0	0	0	0	0	2
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
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2000		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	13	0.008	13	0.008	14	0.008	14	0.008
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	65	0.041	65	0.041	67	0.042	67	0.042
SB 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
EB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	2.00	3200	1065	0.333	1065	0.333	1065	0.333	1065	0.333
RIGHT	1.00	1600	9	0.006	9	0.006	10	0.006	10	0.006
WB LEFT	1.00	1600	32	0.020	32	0.021	34	0.021	34	0.021
THRU	2.00	3200	1220	0.381	1220	0.381	1220	0.381	1220	0.381
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
Intersection Volume			2404		2404		2408		2408	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.439		0.439		0.440		0.440
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
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: 1 % per year

Movement	Lanes	Capacity	Year 2000		Forecast Year 2000		W/Proposed Project		With ALL Projects	
			Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
NB LEFT	1.00	1600	438	0.274	438	0.274	438	0.274	438	0.274
THRU	2.00	3200	858	0.268	858	0.268	858	0.268	858	0.268
RIGHT	1.00	1600	253	0.158	253	0.158	253	0.158	253	0.158
SB LEFT	1.50	2360	493	0.209	493	0.209	493	0.209	493	0.209
THRU	1.50	2400	639	0.266	639	0.266	639	0.266	639	0.266
RIGHT	1.00	1600	43	0.027	43	0.027	43	0.027	43	0.027
EB LEFT	0.00	0	45	0.000	45	0.000	45	0.000	45	0.000
THRU	2.00	3200	270	0.098	270	0.098	270	0.098	270	0.098
RIGHT	1.00	1600	183	0.114	183	0.114	183	0.114	183	0.114
WB LEFT	1.00	1600	159	0.099	159	0.099	159	0.099	159	0.099
THRU	2.00	3200	138	0.043	138	0.043	138	0.043	138	0.043
RIGHT	1.00	1600	284	0.177	284	0.177	284	0.177	284	0.177
Intersection Volume			3803		3803		3803		3803	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.788		0.788		0.788		0.788	
Stopped Delay (sec/veh)			23.8		23.8		23.8		23.8	
LEVEL OF SERVICE (LOS)			C		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.



**TOSCO REFINERY**

**CUMULATIVE  
TRAFFIC IMPACTS  
YEAR 2020**

## LEVEL OF SERVICE ANALYSIS

## A.M. PEAK HOUR

Scenario: Year 2020 Traffic  
 Geometrics: Existing Geometrics

	Year 2000		Forecast Year 2020			Plus Proposed Project			+V/C
	LOS	DELAY V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	
Figueroa St and Anaheim St									
D	33.2	0.855	F	65.6	1.016	F	65.8	1.017	+0.001
Figueroa Pl and Anaheim St									
C	23.9	0.789	E	47.4	0.937	E	47.5	0.938	+0.001
Figueroa St and I St/I-110 on ramp									
D	36.3	0.875	F	74.0	1.040	F	74.2	1.041	+0.001
Figueroa St and G St/I-110 off ramp									
A	5.0	0.320	A	5.0	0.374	A	5.0	0.374	+0.000
Figueroa Pl and I Street/I-110 off ramp									
A	5.0	0.466	A	5.0	0.550	A	5.0	0.550	+0.001
Figueroa Pl and I-110 on ramp/G Street									
A	5.0	0.288	A	5.0	0.336	A	5.0	0.336	+0.000
Frigate Av and C Street/I-110 off ramp									
A	5.0	0.416	A	5.0	0.489	A	5.0	0.489	+0.000
John S Gibson and truck entry/I-110 ramps									
A	5.0	0.583	B	14.0	0.690	B	14.0	0.690	+0.000
John S Gibson and Channel St									
C	22.6	0.776	E	44.3	0.921	E	44.3	0.921	+0.000
76 Products Lane and Anaheim St									
A	5.0	0.505	A	5.0	0.596	A	5.0	0.597	+0.001
Gaffey St and Channel St									
C	22.8	0.778	E	44.7	0.923	E	44.7	0.923	+0.000
Gaffey&PVDN/Normandie/Vermont and Anaheim St									
C	-	0.720	D	-	0.840	D	-	0.840	+0.000

## Notes:

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

delay = average stopped delay in seconds per vehicle

LOS = Level of Service

## LEVEL OF SERVICE ANALYSIS

## P.M. PEAK HOUR

Scenario: Year 2020 Traffic  
 Geometrics: Existing Geometrics

	Year 2000		Forecast Year 2020		Plus Proposed Project		+ V/C		
	LOS	DELAY V/C	LOS	DELAY V/C	LOS	DELAY V/C			
Figueroa St and Anaheim St									
B	10.4	0.654	C	22.5	0.775	C	22.6	0.776	+0.000
Figueroa Pl and Anaheim St									
D	26.7	0.812	E	52.8	0.964	E	52.9	0.965	+0.001
Figueroa St and I St./I-110 on ramp									
A	5.0	0.560	B	11.2	0.662	B	11.2	0.662	+0.001
Figueroa St and G St./I-110 off ramp									
A	5.0	0.328	A	5.0	0.384	A	5.0	0.384	+0.000
Figueroa Pl and I Street/I-110 off ramp									
D	31.1	0.841	E	59.8	0.999	E	59.9	0.999	+0.001
Figueroa Pl and I-110 on ramp/G Street									
A	5.0	0.303	A	5.0	0.353	A	5.0	0.353	+0.000
Frigate Av and C Street/I-110 off ramp									
A	5.0	0.573	B	12.8	0.678	B	12.8	0.678	+0.000
John S Gibson and truck entry/I-110 ramps									
A	5.0	0.442	A	5.0	0.521	A	5.0	0.521	+0.000
John S Gibson and Channel St									
B	6.2	0.612	C	17.5	0.725	C	17.5	0.725	+0.000
76 Products Lane and Anaheim St									
A	5.0	0.439	A	5.0	0.517	A	5.0	0.518	+0.000
Gaffey St and Channel St									
C	23.8	0.788	E	47.1	0.935	E	47.1	0.935	+0.000
Gaffey&PVDN/Normandie/Vermont and Anaheim St									
B/C	-	0.700	D	-	0.840	D	-	0.840	+0.000

## Notes:

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

delay = average stopped delay in seconds per vehicle

LOS = Level of Service



Intersection: **Gaffey Street-Palos Verdes Dr.north-Normandy/Vermont-Anaheim Street**  
 Scenario: **Year 2020 Cumulative Traffic**

**INTERSECTION LEVEL OF SERVICE ANALYSIS**

5-leg3.xls

	LANES	CAPACITY	PHASE NO.	<u>Year 2020</u> <u>A.M. PEAK HOUR</u>			<u>Year 2020</u> <u>P.M. PEAK HOUR</u>		
				VOLUME	V/C	CRITICAL	VOLUME	V/C	CRITICAL
<b>Palos Verdes</b>									
NL	1	1800	2	6	0		14	0.01	
NT	4	7200	2	1,651	0.24	0.24	881	0.14	0.14
NR	0		2	88			122		
<b>Gaffey</b>									
NL	1	1600	*	55	0.03	0.03	42	0.03	0.03
NT	2	3600	1	121	0.03		86	0.02	
NR	1		FREE	624			433		
<b>Normandy/Vermont</b>									
SL	1	1600	*	67	0.04		88	0.05	
ST	3	5400	1	697	0.14	0.14	946	0.19	0.19
SR	0		1	56			55		
<b>Anaheim (west leg)</b>									
EL	1	1800	4	42	0.02		40	0.02	
ET	2	3600	4	302	0.14	0.14	356	0.17	0.17
ER	0		4	200			269		
<b>Anaheim (east leg)</b>									
WL	3	5400	3	1,280	0.24	0.24	1,402	0.26	0.26
WT	SHARED			848			973		
WR	SHARED			347			326		
	SHARED			85			102		
<b>LOST TIME:</b>						0.05	0.05		
<b>SUM=</b>						<b>0.84</b>	<b>SUM= 0.84</b>		
<b>LOS= D</b>							<b>LOS= D</b>		

Note: \* = permissive left turn on through phase.

A.M. PEAK HOUR

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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	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	2	0	0	0	0	0	0	0	0	0	0	0	2

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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	203	0.000	244	0.000	244	0.000	244	0.000
THRU	2.00	3200	192	0.123	230	0.148	230	0.148	230	0.148
RIGHT	1.00	1600	233	0.146	280	0.175	280	0.175	280	0.175
SB LEFT	0.00	0	22	0.000	26	0.000	26	0.000	26	0.000
THRU	2.00	3200	45	0.021	54	0.025	54	0.025	54	0.025
RIGHT	1.00	1600	57	0.036	68	0.043	68	0.043	68	0.043
EB LEFT	1.50	2360	1000	0.424	1200	0.508	1201	0.509	1201	0.509
THRU	1.50	2400	681	0.307	817	0.368	817	0.368	817	0.368
RIGHT	0.00	0	55	0.000	66	0.000	66	0.000	66	0.000
WB LEFT	1.00	1600	48	0.030	58	0.036	58	0.036	58	0.036
THRU	2.00	3200	616	0.258	739	0.309	739	0.309	739	0.309
RIGHT	0.00	0	209	0.000	251	0.000	251	0.000	251	0.000
Intersection Volume			3361		4033		4035		4035	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.855		1.016		1.017		1.017	
Stopped Delay (sec/veh)			33.2		65.6		65.8		65.8	
LEVEL OF SERVICE (LOS)			D		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

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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	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	3	0	0	0	0	0	0	0	0	0	0	0	3

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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	9	0.000	11	0.000	11	0.000	11	0.000
THRU	1.00	1600	2	0.007	2	0.008	2	0.008	2	0.008
RIGHT	1.00	1600	38	0.024	46	0.029	46	0.029	46	0.029
SB LEFT	0.00	0	288	0.000	346	0.000	346	0.000	346	0.000
THRU	2.00	3200	23	0.194	28	0.233	28	0.234	28	0.234
RIGHT	0.00	0	311	0.000	373	0.000	374	0.000	374	0.000
EB LEFT	1.00	1600	62	0.039	74	0.047	74	0.047	74	0.047
THRU	2.00	3200	1218	0.421	1462	0.505	1463	0.506	1463	0.506
RIGHT	0.00	0	129	0.000	155	0.000	155	0.000	155	0.000
WB LEFT	1.00	1600	198	0.124	238	0.149	238	0.149	238	0.149
THRU	2.00	3200	563	0.184	676	0.221	676	0.221	676	0.221
RIGHT	0.00	0	26	0.000	31	0.000	31	0.000	31	0.000
Intersection Volume			2867		3440		3443		3443	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.789		0.937		0.938		0.938	
Stopped Delay (sec/veh)			23.9		47.4		47.5		47.5	
LEVEL OF SERVICE (LOS)			C		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

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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	0	1
NT	0	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	0
SL	0	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	0
SR	0	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	0
ET	0	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	0
WL	0	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	0
WR	0	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	0	1

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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	1126	0.704	1351	0.845	1352	0.845	1352	0.845
THRU	1.00	1600	115	0.078	138	0.094	138	0.094	138	0.094
RIGHT	0.00	0	10	0.000	12	0.000	12	0.000	12	0.000
SB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	2.00	3200	92	0.029	110	0.034	110	0.034	110	0.034
RIGHT	1.00	1600	24	0.015	29	0.018	29	0.018	29	0.018
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	0.00	0	13	0.000	16	0.000	16	0.000	16	0.000
THRU	1.00	1600	124	0.093	149	0.111	149	0.111	149	0.111
RIGHT	0.00	0	11	0.000	13	0.000	13	0.000	13	0.000
Intersection Volume			1515		1818		1819		1819	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.875		1.040		1.041		1.041	
Stopped Delay (sec/veh)			36.3		74.0		74.2		74.2	
LEVEL OF SERVICE (LOS)			D		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

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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

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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	160	0.050	192	0.060	192	0.060	192	0.060
RIGHT	0.00	0	1	0.000	1	0.000	1	0.000	1	0.000
SB LEFT	0.00	0	4	0.000	5	0.000	5	0.000	5	0.000
THRU	2.00	3200	128	0.041	154	0.050	154	0.050	154	0.050
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB LEFT	0.00	0	351	0.000	421	0.000	421	0.000	421	0.000
THRU	1.00	1600	1	0.220	1	0.264	1	0.264	1	0.264
RIGHT	1.00	1600	3	0.002	4	0.002	4	0.002	4	0.002
WB LEFT	0.00	0	3	0.000	4	0.000	4	0.000	4	0.000
THRU	1.00	1600	0	0.025	0	0.030	0	0.030	0	0.030
RIGHT	0.00	0	37	0.000	44	0.000	44	0.000	44	0.000
Intersection Volume			688		826		826		826	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.320		0.374		0.374		0.374	
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

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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	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

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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	2	0.000	2	0.000	2	0.000	2	0.000
THRU	1.00	1600	63	0.041	76	0.049	76	0.049	76	0.049
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
SB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	1.00	1600	35	0.026	42	0.031	42	0.031	42	0.031
RIGHT	0.00	0	6	0.000	7	0.000	7	0.000	7	0.000
EB LEFT	0.00	0	13	0.000	16	0.000	16	0.000	16	0.000
THRU	1.00	1600	0	0.012	0	0.014	0	0.014	0	0.014
RIGHT	0.00	0	6	0.000	7	0.000	7	0.000	7	0.000
WB LEFT	1.00	1600	582	0.364	698	0.437	700	0.437	700	0.437
THRU	1.00	1600	44	0.079	53	0.095	53	0.095	53	0.095
RIGHT	0.00	0	82	0.000	98	0.000	98	0.000	98	0.000
Intersection Volume			833		1000		1001		1001	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.466		0.550		0.550		0.550	
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

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 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

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 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	25	0.016	30	0.019	30	0.019	30	0.019
RIGHT	1.00	1600	1	0.001	1	0.001	1	0.001	1	0.001
SB LEFT	0.00	0	350	0.000	420	0.000	420	0.000	420	0.000
THRU	1.00	1600	16	0.233	19	0.280	19	0.280	19	0.280
RIGHT	0.00	0	7	0.000	8	0.000	8	0.000	8	0.000
EB LEFT	0.00	0	8	0.000	10	0.000	10	0.000	10	0.000
THRU	1.00	1600	0	0.005	0	0.006	0	0.006	0	0.006
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
WB 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
Intersection Volume			407		488		489		489	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.288		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.

A.M. PEAK HOUR

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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

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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	101	0.063	121	0.076	121	0.076	121	0.076
THRU	2.00	3200	77	0.027	92	0.032	93	0.032	93	0.032
RIGHT	0.00	0	8	0.000	10	0.000	10	0.000	10	0.000
SB LEFT	1.00	1600	7	0.004	8	0.005	9	0.005	9	0.005
THRU	2.00	3200	99	0.031	119	0.037	119	0.037	119	0.037
RIGHT	1.00	1600	48	0.030	58	0.036	58	0.036	58	0.036
EB LEFT	1.30	2056	72	0.035	86	0.042	86	0.042	86	0.042
THRU	0.40	640	174	0.272	209	0.326	209	0.326	209	0.326
RIGHT	1.30	2056	252	0.123	302	0.147	302	0.147	302	0.147
WB LEFT	0.00	0	16	0.000	19	0.000	19	0.000	19	0.000
THRU	1.00	1600	122	0.086	146	0.104	146	0.104	146	0.104
RIGHT	1.00	1600	23	0.014	28	0.017	28	0.017	28	0.017
Intersection Volume			999		1199		1199		1199	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.416		0.489		0.489		0.489
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

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 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

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 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	2.00	3120	1212	0.388	1454	0.466	1454	0.466	1454	0.466
THRU	2.00	3200	548	0.189	658	0.227	658	0.227	658	0.227
RIGHT	0.00	0	57	0.000	68	0.000	68	0.000	68	0.000
SB LEFT	1.00	1600	193	0.121	232	0.145	232	0.145	232	0.145
THRU	2.00	3200	356	0.111	427	0.134	427	0.134	427	0.134
RIGHT	1.00	1600	12	0.007	14	0.009	14	0.009	14	0.009
EB LEFT	0.00	0	17	0.000	20	0.000	20	0.000	20	0.000
THRU	0.00	0	21	0.000	25	0.000	25	0.000	25	0.000
RIGHT	0.00	0	7	0.000	8	0.000	8	0.000	8	0.000
WB LEFT	0.00	0	20	0.000	24	0.000	24	0.000	24	0.000
THRU	2.00	3200	54	0.033	65	0.040	65	0.040	65	0.040
RIGHT	0.00	0	33	0.000	40	0.000	40	0.000	40	0.000
Intersection Volume			2530		3036		3036		3036	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.583		0.690		0.690		0.690	
Stopped Delay (sec/veh)			5.0		14.0		14.0		14.0	
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

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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

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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	327	0.204	392	0.245	392	0.245	392	0.245
THRU	2.00	3200	673	0.210	808	0.252	808	0.252	808	0.252
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
SB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	2.00	3200	279	0.087	335	0.105	335	0.105	335	0.105
RIGHT	1.00	1600	207	0.129	248	0.155	248	0.155	248	0.155
EB LEFT	2.00	3120	1356	0.435	1627	0.522	1627	0.522	1627	0.522
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	397	0.248	476	0.298	476	0.298	476	0.298
WB 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
Intersection Volume			3239		3887		3887		3887	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.776		0.921		0.921		0.921	
Stopped Delay (sec/veh)			22.6		44.3		44.3		44.3	
LEVEL OF SERVICE (LOS)			C		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

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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	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	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	2	0	0	0	0	0	0	0	0	0	0	0	2
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

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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	2	0.001	2	0.002	3	0.002	3	0.002
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	12	0.007	14	0.009	16	0.010	16	0.010
SB 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
EB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	2.00	3200	1395	0.436	1674	0.523	1674	0.523	1674	0.523
RIGHT	1.00	1600	4	0.002	5	0.003	5	0.003	5	0.003
WB LEFT	1.00	1600	28	0.018	34	0.021	35	0.022	35	0.022
THRU	2.00	3200	911	0.285	1093	0.342	1093	0.342	1093	0.342
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
Intersection Volume			2352		2822		2826		2826	
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.



A.M. PEAK HOUR

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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

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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	212	0.132	254	0.159	254	0.159	254	0.159
THRU	2.00	3200	890	0.278	1068	0.334	1068	0.334	1068	0.334
RIGHT	1.00	1600	408	0.255	490	0.306	490	0.306	490	0.306
SB LEFT	1.50	2360	565	0.239	678	0.287	678	0.287	678	0.287
THRU	1.50	2400	543	0.226	652	0.272	652	0.272	652	0.272
RIGHT	1.00	1600	39	0.024	47	0.029	47	0.029	47	0.029
EB LEFT	0.00	0	40	0.000	48	0.000	48	0.000	48	0.000
THRU	2.00	3200	447	0.152	536	0.183	536	0.183	536	0.183
RIGHT	1.00	1600	216	0.135	259	0.162	259	0.162	259	0.162
WB LEFT	1.00	1600	93	0.058	112	0.070	112	0.070	112	0.070
THRU	2.00	3200	83	0.026	100	0.031	100	0.031	100	0.031
RIGHT	1.00	1600	278	0.174	334	0.208	334	0.208	334	0.208
Intersection Volume			3814		4577		4577		4577	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.778		0.923		0.923		0.923	
Stopped Delay (sec/veh)			22.8		44.7		44.7		44.7	
LEVEL OF SERVICE (LOS)			C		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

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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	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	2	0	0	0	0	0	0	0	0	0	0	0	2

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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	231	0.000	277	0.000	277	0.000	277	0.000
THRU	2.00	3200	122	0.110	146	0.132	146	0.132	146	0.132
RIGHT	1.00	1600	183	0.114	220	0.137	220	0.137	220	0.137
SB LEFT	0.00	0	48	0.000	58	0.000	58	0.000	58	0.000
THRU	2.00	3200	57	0.033	68	0.039	68	0.039	68	0.039
RIGHT	1.00	1600	31	0.019	37	0.023	37	0.023	37	0.023
EB LEFT	1.50	2360	139	0.059	167	0.071	168	0.071	168	0.071
THRU	1.50	2400	770	0.470	924	0.565	924	0.565	924	0.565
RIGHT	0.00	0	359	0.000	431	0.000	431	0.000	431	0.000
WB LEFT	1.00	1600	38	0.024	46	0.029	46	0.029	46	0.029
THRU	2.00	3200	512	0.268	614	0.321	615	0.321	615	0.321
RIGHT	0.00	0	344	0.000	413	0.000	413	0.000	413	0.000
Intersection Volume			2834		3401		3403		3403	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.654		0.775		0.776		0.776	
Stopped Delay (sec/veh)			10.4		22.5		22.6		22.6	
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

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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	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	3	0	0	0	0	0	0	0	0	0	0	0	3

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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	6	0.000	7	0.000	7	0.000	7	0.000
THRU	1.00	1600	3	0.006	4	0.007	4	0.007	4	0.007
RIGHT	1.00	1600	22	0.014	26	0.017	26	0.017	26	0.017
SB LEFT	0.00	0	404	0.000	485	0.000	485	0.000	485	0.000
THRU	2.00	3200	67	0.342	80	0.411	80	0.411	80	0.411
RIGHT	0.00	0	624	0.000	749	0.000	750	0.000	750	0.000
EB LEFT	1.00	1600	27	0.017	32	0.020	32	0.020	32	0.020
THRU	2.00	3200	894	0.311	1073	0.374	1074	0.374	1074	0.374
RIGHT	0.00	0	102	0.000	122	0.000	123	0.000	123	0.000
WB LEFT	1.00	1600	173	0.108	208	0.130	208	0.130	208	0.130
THRU	2.00	3200	523	0.169	628	0.203	628	0.203	628	0.203
RIGHT	0.00	0	18	0.000	22	0.000	22	0.000	22	0.000
Intersection Volume			2863		3436		3439		3439	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.812		0.964		0.965		0.965	
Stopped Delay (sec/veh)			26.7		52.8		52.9		52.9	
LEVEL OF SERVICE (LOS)			D		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

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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	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	1	0	0	0	0	0	0	0	0	0	0	0	1

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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	700	0.438	840	0.525	841	0.526	841	0.526
THRU	1.00	1600	199	0.142	239	0.170	239	0.170	239	0.170
RIGHT	0.00	0	28	0.000	34	0.000	34	0.000	34	0.000
SB LEFT	0.00	0	4	0.000	5	0.000	5	0.000	5	0.000
THRU	2.00	3200	139	0.045	167	0.054	167	0.054	167	0.054
RIGHT	1.00	1600	25	0.016	30	0.019	30	0.019	30	0.019
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	0.00	0	4	0.000	5	0.000	5	0.000	5	0.000
THRU	1.00	1600	24	0.027	29	0.033	29	0.033	29	0.033
RIGHT	0.00	0	16	0.000	19	0.000	19	0.000	19	0.000
Intersection Volume			1139		1367		1368		1368	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.560		0.662		0.662		0.662	
Stopped Delay (sec/veh)			5.0		11.2		11.2		11.2	
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

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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

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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	204	0.064	245	0.077	245	0.077	245	0.077
RIGHT	0.00	0	1	0.000	1	0.000	1	0.000	1	0.000
SB LEFT	0.00	0	5	0.000	6	0.000	6	0.000	6	0.000
THRU	2.00	3200	92	0.030	110	0.036	111	0.036	111	0.036
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB LEFT	0.00	0	340	0.000	408	0.000	408	0.000	408	0.000
THRU	1.00	1600	3	0.214	4	0.257	4	0.257	4	0.257
RIGHT	1.00	1600	4	0.002	5	0.003	5	0.003	5	0.003
WB LEFT	0.00	0	2	0.000	2	0.000	2	0.000	2	0.000
THRU	1.00	1600	0	0.013	0	0.016	0	0.016	0	0.016
RIGHT	0.00	0	19	0.000	23	0.000	23	0.000	23	0.000
Intersection Volume			670		804		804		804	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05
Intersection V/C Ratio				0.328		0.384		0.384		0.384
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

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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	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

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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	53	0.034	64	0.041	64	0.041	64	0.041
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
SB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	1.00	1600	118	0.084	142	0.101	142	0.101	142	0.101
RIGHT	0.00	0	17	0.000	20	0.000	20	0.000	20	0.000
EB LEFT	0.00	0	6	0.000	7	0.000	7	0.000	7	0.000
THRU	1.00	1600	0	0.006	0	0.007	0	0.007	0	0.007
RIGHT	0.00	0	3	0.000	4	0.000	4	0.000	4	0.000
WB LEFT	1.00	1600	1121	0.701	1345	0.841	1346	0.841	1346	0.841
THRU	1.00	1600	58	0.099	70	0.119	70	0.119	70	0.119
RIGHT	0.00	0	101	0.000	121	0.000	121	0.000	121	0.000
Intersection Volume			1478		1774		1775		1775	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.841		0.999		0.999		0.999	
Stopped Delay (sec/veh)			31.1		59.8		59.9		59.9	
LEVEL OF SERVICE (LOS)			D		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

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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

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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	20	0.013	24	0.016	24	0.016	24	0.016
RIGHT	1.00	1600	0	0.000	0	0.000	0	0.000	0	0.000
SB LEFT	0.00	0	342	0.000	410	0.000	411	0.000	411	0.000
THRU	1.00	1600	38	0.248	46	0.297	46	0.297	46	0.297
RIGHT	0.00	0	16	0.000	19	0.000	19	0.000	19	0.000
EB LEFT	0.00	0	6	0.000	7	0.000	7	0.000	7	0.000
THRU	1.00	1600	1	0.005	1	0.006	1	0.006	1	0.006
RIGHT	0.00	0	1	0.000	1	0.000	1	0.000	1	0.000
WB 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
Intersection Volume			425		510		510		510	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.303		0.353		0.353		0.353	
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

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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

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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	242	0.151	290	0.182	290	0.182	290	0.182
THRU	2.00	3200	102	0.036	122	0.043	123	0.043	123	0.043
RIGHT	0.00	0	12	0.000	14	0.000	14	0.000	14	0.000
SB LEFT	1.00	1600	18	0.011	22	0.014	22	0.014	22	0.014
THRU	2.00	3200	80	0.025	96	0.030	96	0.030	96	0.030
RIGHT	1.00	1600	43	0.027	52	0.032	52	0.032	52	0.032
EB LEFT	1.30	2056	36	0.018	43	0.021	43	0.021	43	0.021
THRU	0.40	640	222	0.347	266	0.416	266	0.416	266	0.416
RIGHT	1.30	2056	119	0.058	143	0.069	143	0.069	143	0.069
WB LEFT	0.00	0	10	0.000	12	0.000	12	0.000	12	0.000
THRU	1.00	1600	155	0.103	186	0.124	186	0.124	186	0.124
RIGHT	1.00	1600	25	0.016	30	0.019	30	0.019	30	0.019
Intersection Volume			1064		1277		1277		1277	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.573		0.678		0.678		0.678	
Stopped Delay (sec/veh)			5.0		12.8		12.8		12.8	
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

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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

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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	2.00	3120	430	0.138	516	0.165	516	0.165	516	0.165
THRU	2.00	3200	473	0.154	568	0.185	568	0.185	568	0.185
RIGHT	0.00	0	20	0.000	24	0.000	24	0.000	24	0.000
SB LEFT	1.00	1600	44	0.027	53	0.033	53	0.033	53	0.033
THRU	2.00	3200	574	0.179	689	0.215	689	0.215	689	0.215
RIGHT	1.00	1600	18	0.011	22	0.014	22	0.014	22	0.014
EB LEFT	0.00	0	18	0.000	22	0.000	22	0.000	22	0.000
THRU	0.00	0	28	0.000	34	0.000	34	0.000	34	0.000
RIGHT	0.00	0	12	0.000	14	0.000	14	0.000	14	0.000
WB LEFT	0.00	0	49	0.000	59	0.000	59	0.000	59	0.000
THRU	2.00	3200	76	0.075	91	0.090	91	0.090	91	0.090
RIGHT	0.00	0	115	0.000	138	0.000	138	0.000	138	0.000
Intersection Volume			1857		2228		2228		2228	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.442		0.521		0.521		0.521	
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

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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

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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	378	0.236	454	0.284	454	0.284	454	0.284
THRU	2.00	3200	410	0.128	492	0.154	492	0.154	492	0.154
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
SB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	2.00	3200	370	0.116	444	0.139	444	0.139	444	0.139
RIGHT	1.00	1600	254	0.159	305	0.191	305	0.191	305	0.191
EB LEFT	2.00	3120	657	0.211	788	0.253	788	0.253	788	0.253
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	554	0.346	665	0.416	665	0.416	665	0.416
WB 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
Intersection Volume			2623		3148		3148		3148	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.612		0.725		0.725		0.725	
Stopped Delay (sec/veh)			6.2		17.5		17.5		17.5	
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

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 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	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	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	2	0	0	0	0	0	0	0	0	0	0	0	2
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

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 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	13	0.008	16	0.010	16	0.010	16	0.010
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	65	0.041	78	0.049	80	0.050	80	0.050
SB 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
EB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	2.00	3200	1065	0.333	1278	0.399	1278	0.399	1278	0.399
RIGHT	1.00	1600	9	0.006	11	0.007	11	0.007	11	0.007
WB LEFT	1.00	1600	32	0.020	38	0.024	40	0.025	40	0.025
THRU	2.00	3200	1220	0.381	1464	0.458	1464	0.458	1464	0.458
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
Intersection Volume			2404		2885		2889		2889	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.439		0.517		0.518		0.518	
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

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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

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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	438	0.274	526	0.329	526	0.329	526	0.329
THRU	2.00	3200	858	0.268	1030	0.322	1030	0.322	1030	0.322
RIGHT	1.00	1600	253	0.158	304	0.190	304	0.190	304	0.190
SB LEFT	1.50	2360	493	0.209	592	0.251	592	0.251	592	0.251
THRU	1.50	2400	639	0.266	767	0.320	767	0.320	767	0.320
RIGHT	1.00	1600	43	0.027	52	0.032	52	0.032	52	0.032
EB LEFT	0.00	0	45	0.000	54	0.000	54	0.000	54	0.000
THRU	2.00	3200	270	0.098	324	0.118	324	0.118	324	0.118
RIGHT	1.00	1600	183	0.114	220	0.137	220	0.137	220	0.137
WB LEFT	1.00	1600	159	0.099	191	0.119	191	0.119	191	0.119
THRU	2.00	3200	138	0.043	166	0.052	166	0.052	166	0.052
RIGHT	1.00	1600	284	0.177	341	0.213	341	0.213	341	0.213
Intersection Volume			3803		4564		4564		4564	
Signal Phasing Loss Factor			0.05		0.05		0.05		0.05	
Intersection V/C Ratio			0.788		0.935		0.935		0.935	
Stopped Delay (sec/veh)			23.8		47.1		47.1		47.1	
LEVEL OF SERVICE (LOS)			C		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.