

**APPENDIX F**

**LEVEL OF SERVICE CALCULATION WORKSHEETS**

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Upper Santa Ana River Wash  
Existing (2004) Conditions  
A.M. Peak Hour

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Scenario Report

Scenario: 2004 AM  
Command: 2004 AM  
Volume: 2004 AM  
Geometry: Alternative C  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Paths  
Routes: Default Routes  
Configuration: 2004/2008

Upper Santa Ana River Wash  
Existing (2004) Conditions  
A.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.568  
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 31.0  
Optimal Cycle: 80 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

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Volume Module:

Base Vol:	63	63	284	110	259	74	11	194	93	382	656	75
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	63	63	284	110	259	74	11	194	93	382	656	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	66	66	296	115	270	77	11	202	97	398	684	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	66	296	115	270	77	11	202	97	398	684	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	66	66	296	115	270	77	11	202	97	398	684	78

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Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3600	1800

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Capacity Analysis Module:

Vol/Sat:	0.04	0.02	0.16	0.07	0.08	0.04	0.01	0.06	0.05	0.23	0.19	0.04
Crit Moves:	****			****			****			****		
Green Time:	10.0	26.0	26.0	10.0	26.0	26.0	15.6	26.0	26.0	30.0	40.4	40.4
Volume/Cap:	0.39	0.07	0.63	0.67	0.29	0.16	0.04	0.22	0.21	0.78	0.47	0.11
Delay/Veh:	43.6	27.9	35.6	53.7	29.8	28.8	36.0	29.1	29.2	39.6	22.1	18.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.6	27.9	35.6	53.7	29.8	28.8	36.0	29.1	29.2	39.6	22.1	18.6
LOS by Move:	D	C	D	D	C	C	D	C	C	D	C	B
HCM2kAvgQ:	2	1	9	5	3	2	0	2	2	14	8	1

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

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Upper Santa Ana River Wash  
Existing (2004) Conditions  
A.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.379  
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 26.4  
Optimal Cycle: 80 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	2	0	1	0	1	1

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Volume Module:

Base Vol:	148	278	11	30	406	297	89	2	52	5	2	42
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	148	278	11	30	406	297	89	2	52	5	2	42
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.00	0.87	0.87	0.87
PHF Volume:	170	320	13	34	467	341	102	2	0	6	2	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	170	320	13	34	467	341	102	2	0	6	2	48
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	170	320	13	34	467	341	102	2	0	6	2	48

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Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	3200	1800	1800	1700	1800	1800

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Capacity Analysis Module:

Vol/Sat:	0.10	0.09	0.01	0.02	0.13	0.19	0.03	0.00	0.00	0.00	0.00	0.03
Crit Moves:	****			****			****			****		
Green Time:	19.3	40.4	40.4	15.6	36.7	36.7	10.0	26.0	0.0	10.0	26.0	26.0
Volume/Cap:	0.52	0.22	0.02	0.13	0.35	0.52	0.32	0.00	0.00	0.03	0.00	0.10
Delay/Veh:	37.6	19.5	17.9	36.6	23.2	25.5	42.4	27.4	0.0	40.7	27.4	28.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	37.6	19.5	17.9	36.6	23.2	25.5	42.4	27.4	0.0	40.7	27.4	28.2
LOS by Move:	D	B	B	D	C	C	D	C	A	D	C	C
HCM2kAvgQ:	6	3	0	1	5	8	2	0	0	0	0	1

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

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Upper Santa Ana River Wash  
Existing (2004) Conditions  
A.M. Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Average Delay (sec/veh): 1.7 Worst Case Level Of Service: B[ 11.9]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	351	3	56	409	0	0	0	0	7	0	86
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	351	3	56	409	0	0	0	0	7	0	86
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	393	3	63	457	0	0	0	0	8	0	96
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	393	3	63	457	0	0	0	0	8	0	96

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxx	xxxx	xxxxx	396	xxxx	xxxxx	xxxx	xxxx	xxxxx	975	xxxx	393
Potent Cap.:	xxxx	xxxx	xxxxx	1174	xxxx	xxxxx	xxxx	xxxx	xxxxx	281	xxxx	661
Move Cap.:	xxxx	xxxx	xxxxx	1174	xxxx	xxxxx	xxxx	xxxx	xxxxx	270	xxxx	661
Volume/Cap:	xxxx	xxxx	xxxx	0.05	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	0.15

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	0.5
Control Del:	xxxxx	xxxx	xxxxx	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	18.7	xxxx	11.4
LOS by Move:	*	*	*	A	*	*	*	*	*	C	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			11.9		
ApproachLOS:	*			*			*			B		

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

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Upper Santa Ana River Wash
Existing (2004) Conditions
A.M. Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #4 Alabama St/Cemex Acc.

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Average Delay (sec/veh): 1.7 Worst Case Level Of Service: B[ 11.1]

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Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Table with 12 columns representing traffic volumes. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Vol.

Table with 12 columns representing critical gap and follow-up times. Rows include Critical Gap and FollowUpTim.

Table with 12 columns representing capacity. Rows include Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 12 columns representing level of service. Rows include 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

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Upper Santa Ana River Wash  
Existing (2004) Conditions  
A.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #5 Church St/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.399  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 13.8  
Optimal Cycle: 61 Level Of Service: B

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	17	17	10	17	17
Lanes:	0	0	0	0	0	0	1	0	0	0	0	0

Volume Module:

Base Vol:	0	0	0	121	0	64	10	579	0	0	1049	46
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	121	0	64	10	579	0	0	1049	46
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	0	0	136	0	72	11	652	0	0	1181	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	136	0	72	11	652	0	0	1181	52
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	136	0	72	11	652	0	0	1181	52

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1700	0	1800	1700	3600	0	0	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.08	0.00	0.04	0.01	0.18	0.00	0.00	0.33	0.03
Crit Moves:						****	****				****	
Green Time:	0.0	0.0	0.0	28.0	0.0	28.0	10.0	66.0	0.0	0.0	56.0	56.0
Volume/Cap:	0.00	0.00	0.00	0.29	0.00	0.14	0.07	0.27	0.00	0.00	0.59	0.05
Delay/Veh:	0.0	0.0	0.0	28.5	0.0	27.1	40.9	7.1	0.0	0.0	14.9	10.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	28.5	0.0	27.1	40.9	7.1	0.0	0.0	14.9	10.0
LOS by Move:	A	A	A	C	A	C	D	A	A	A	B	A
HCM2kAvgQ:	0	0	0	4	0	2	0	4	0	0	12	1

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

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Upper Santa Ana River Wash
Existing (2004) Conditions
A.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.837
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 25.8
Optimal Cycle: 67 Level Of Service: C

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Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Lanes.

Volume Module:

Table with columns: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module:

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:

Table with columns: Vol/Sat, Crit Moves, Green Time, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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 Upper Santa Ana River Wash  
 Existing (2004) Conditions  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.708  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 24.8  
 Optimal Cycle: 44 Level Of Service: C  
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Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18								
Lanes:	0	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	2	0	1

Volume Module:

Base Vol:	528	0	263	0	0	0	59	283	0	0	1050	229
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	528	0	263	0	0	0	59	283	0	0	1050	229
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	552	0	275	0	0	0	62	296	0	0	1097	239
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	552	0	275	0	0	0	62	296	0	0	1097	239
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	552	0	275	0	0	0	62	296	0	0	1097	239

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	0.94	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1700	0	1800	0	0	0	1700	3600	0	0	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.32	0.00	0.15	0.00	0.00	0.00	0.04	0.08	0.00	0.00	0.30	0.13
Crit Moves:	****						****			****		
Green Time:	43.3	0.0	43.3	0.0	0.0	0.0	10.0	50.7	0.0	0.0	40.7	40.7
Volume/Cap:	0.75	0.00	0.35	0.00	0.00	0.00	0.36	0.16	0.00	0.00	0.75	0.33
Delay/Veh:	28.1	0.0	19.2	0.0	0.0	0.0	43.3	13.3	0.0	0.0	27.5	20.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.1	0.0	19.2	0.0	0.0	0.0	43.3	13.3	0.0	0.0	27.5	20.6
LOS by Move:	C	A	B	A	A	A	D	B	A	A	C	C
HCM2kAvgQ:	16	0	6	0	0	0	2	2	0	0	16	5

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Existing (2004) Conditions  
A.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.549  
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 26.6  
Optimal Cycle: 84 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	116	98	4	44	167	4	1	305	204	24	1085	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	116	98	4	44	167	4	1	305	204	24	1085	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	126	107	4	48	182	4	1	333	222	26	1183	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	126	107	4	48	182	4	1	333	222	26	1183	77
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	126	107	4	48	182	4	1	333	222	26	1183	77

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	1800	1800	1700	3600	1800	1700	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.07	0.03	0.00	0.03	0.10	0.00	0.00	0.09	0.12	0.02	0.33	0.04
Crit Moves:	****			****			****			****		
Green Time:	10.0	28.0	28.0	10.0	28.0	28.0	10.0	39.8	39.8	14.2	44.0	44.0
Volume/Cap:	0.74	0.11	0.01	0.28	0.36	0.01	0.01	0.23	0.31	0.11	0.75	0.10
Delay/Veh:	60.0	26.8	26.0	42.6	29.3	26.0	40.5	20.1	20.9	37.6	25.4	16.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	60.0	26.8	26.0	42.6	29.3	26.0	40.5	20.1	20.9	37.6	25.4	16.4
LOS by Move:	E	C	C	D	C	C	D	C	C	D	C	B
HCM2kAvgQ:	6	1	0	2	5	0	0	3	5	1	16	1

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

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Upper Santa Ana River Wash
Existing (2004) Conditions
A.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #10 Orange St/Cemex Acc.

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.559
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 6.4
Optimal Cycle: 25 Level Of Service: A
\*\*\*\*\*

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), Min. Green (10, 10, 10), Lanes (0 1 0 0 1).

Volume Module: Base Vol: 0 356 20 56 662 0 0 26 0 42 29 30
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 356 20 56 662 0 0 26 0 42 29 30
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87
PHF Volume: 0 412 23 65 765 0 0 30 0 49 34 35
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 412 23 65 765 0 0 30 0 49 34 35
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 412 23 65 765 0 0 30 0 49 34 35

Saturation Flow Module: Sat/Lane: 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800
Adjustment: 0.94 0.94 1.00 0.94 0.94 1.00 0.94 0.94 1.00 0.94 0.94 1.00
Lanes: 0.00 1.00 1.00 0.08 0.92 0.00 0.00 1.00 1.00 0.59 0.41 1.00
Final Sat.: 0 1700 1800 133 1567 0 0 1700 1800 1006 694 1800

Capacity Analysis Module: Vol/Sat: 0.00 0.24 0.01 0.49 0.49 0.00 0.00 0.02 0.00 0.05 0.05 0.02
Crit Moves: \*\*\*\*
Green Time: 0.0 86.0 86.0 86.0 86.0 0.0 0.0 10.0 0.0 10.0 10.0 10.0
Volume/Cap: 0.00 0.28 0.01 0.57 0.57 0.00 0.00 0.18 0.00 0.48 0.48 0.19
Delay/Veh: 0.0 1.4 1.0 2.4 2.4 0.0 0.0 41.7 0.0 44.7 44.7 41.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 1.4 1.0 2.4 2.4 0.0 0.0 41.7 0.0 44.7 44.7 41.8
LOS by Move: A A A A A A A D A D D
HCM2kAvgQ: 0 3 0 8 8 0 0 1 0 3 3 1

Note: Queue reported is the number of cars per lane.
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Upper Santa Ana River Wash  
Existing (2004) Conditions  
P.M. Peak Hour

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Scenario Report

Scenario: 2004 PM  
Command: 2004 PM  
Volume: 2004 PM  
Geometry: Alternative C  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Paths  
Routes: Default Routes  
Configuration: 2004/2008

Upper Santa Ana River Wash
Existing (2004) Conditions
P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #1 Palm Av/5th St

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.753
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 38.8
Optimal Cycle: 80 Level Of Service: D

\*\*\*\*\*

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), Min. Green (10, 26, 26), Lanes (1 0 2 0 1).

Volume Module:

Table with columns: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol. for each approach.

Saturation Flow Module:

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. for each approach.

Capacity Analysis Module:

Table with columns: Vol/Sat, Crit Moves, Green Time, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ for each approach.

\*\*\*\*\*

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

\*\*\*\*\*

Upper Santa Ana River Wash  
Existing (2004) Conditions  
P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #2 Palm Av/3rd St

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.435  
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 33.1  
Optimal Cycle: 80 Level Of Service: C

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	2	0	1	0	1	1

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Volume Module:

Base Vol:	65	659	3	1	269	71	528	2	149	4	2	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	65	659	3	1	269	71	528	2	149	4	2	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.00	0.90	0.90	0.90
PHF Volume:	72	733	3	1	299	79	587	2	0	4	2	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	733	3	1	299	79	587	2	0	4	2	22
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	72	733	3	1	299	79	587	2	0	4	2	22

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Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	3200	1800	1800	1700	1800	1800

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Capacity Analysis Module:

Vol/Sat:	0.04	0.20	0.00	0.00	0.08	0.04	0.18	0.00	0.00	0.00	0.00	0.01
Crit Moves:	****			****			****			****		
Green Time:	11.0	29.5	29.5	10.0	28.5	28.5	26.5	38.0	0.0	14.6	26.0	26.0
Volume/Cap:	0.39	0.69	0.01	0.01	0.29	0.15	0.69	0.00	0.00	0.02	0.00	0.05
Delay/Veh:	42.7	33.2	24.9	40.5	28.0	26.9	35.5	19.3	0.0	36.6	27.4	27.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.7	33.2	24.9	40.5	28.0	26.9	35.5	19.3	0.0	36.6	27.4	27.8
LOS by Move:	D	C	C	D	C	C	D	B	A	D	C	C
HCM2kAvgQ:	3	11	0	0	4	2	10	0	0	0	0	1

\*\*\*\*\*

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

\*\*\*\*\*

Upper Santa Ana River Wash
Existing (2004) Conditions
P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #3 Alabama St/Robertson's Acc.

\*\*\*\*\*

Average Delay (sec/veh): 0.9 Worst Case Level Of Service: C[ 15.9]

\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Table with 12 columns representing traffic volumes. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Vol.

Table with 12 columns representing critical gap and follow-up times. Rows include Critical Gap and FollowUpTime.

Table with 12 columns representing capacity and conflict volumes. Rows include Conflict Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 12 columns representing level of service and delay. Rows include 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

\*\*\*\*\*

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

\*\*\*\*\*

Upper Santa Ana River Wash
Existing (2004) Conditions
P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #4 Alabama St/Cemex Acc.

\*\*\*\*\*

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: C[ 15.8]

\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module: Table with 12 columns representing different traffic movements and 4 rows for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Vol.

Critical Gap Module: Table with 12 columns for movements and 3 rows for Critical Gp, FollowUpTim, and Capacity.

Capacity Module: Table with 12 columns for movements and 4 rows for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Level of Service Module: Table with 12 columns for movements and 4 rows for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

\*\*\*\*\*

Upper Santa Ana River Wash  
Existing (2004) Conditions  
P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #5 Church St/5th St

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.382  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 14.3  
Optimal Cycle: 61 Level Of Service: B

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	17	17	10	17	17
Lanes:	0	0	0	1	0	0	1	0	2	0	0	2

Volume Module:

Base Vol:	0	0	0	54	0	24	59	1131	0	0	564	113
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	54	0	24	59	1131	0	0	564	113
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	0	0	0	59	0	26	65	1241	0	0	619	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	59	0	26	65	1241	0	0	619	124
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	59	0	26	65	1241	0	0	619	124

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1700	0	1800	1700	3600	0	0	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.01	0.04	0.34	0.00	0.00	0.17	0.07
Crit Moves:						****		****		****		
Green Time:	0.0	0.0	0.0	28.0	0.0	28.0	24.3	66.0	0.0	0.0	41.7	41.7
Volume/Cap:	0.00	0.00	0.00	0.12	0.00	0.05	0.16	0.52	0.00	0.00	0.41	0.17
Delay/Veh:	0.0	0.0	0.0	27.0	0.0	26.3	30.0	9.0	0.0	0.0	20.7	18.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	27.0	0.0	26.3	30.0	9.0	0.0	0.0	20.7	18.3
LOS by Move:	A	A	A	C	A	C	C	A	A	A	C	B
HCM2kAvgQ:	0	0	0	1	0	1	2	10	0	0	7	2

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

Upper Santa Ana River Wash  
Existing (2004) Conditions  
P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #7 SR-30 SB Ramps/5th St

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.601  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 21.6  
Optimal Cycle: 39 Level Of Service: C

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	1	0	2

Volume Module:

Base Vol:	0	0	0	217	0	94	0	770	415	293	578	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	217	0	94	0	770	415	293	578	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	231	0	100	0	820	442	312	616	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	231	0	100	0	820	442	312	616	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	231	0	100	0	820	442	312	616	0

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	0.94	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1700	0	1800	0	3600	1800	1700	3600	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.14	0.00	0.06	0.00	0.23	0.25	0.18	0.17	0.00
Crit Moves:				****				****			****	
Green Time:	0.0	0.0	0.0	22.6	0.0	22.6	0.0	40.8	40.8	30.5	71.4	0.0
Volume/Cap:	0.00	0.00	0.00	0.60	0.00	0.25	0.00	0.56	0.60	0.60	0.24	0.00
Delay/Veh:	0.0	0.0	0.0	37.3	0.0	32.0	0.0	23.1	24.6	31.5	5.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	37.3	0.0	32.0	0.0	23.1	24.6	31.5	5.0	0.0
LOS by Move:	A	A	A	D	A	C	A	C	C	C	A	A
HCM2kAvgQ:	0	0	0	7	0	3	0	10	11	9	3	0

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

Upper Santa Ana River Wash  
Existing (2004) Conditions  
P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #8 NB-30 Ramps/5th St

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.522  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 23.7  
Optimal Cycle: 44 Level Of Service: C

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18
Lanes:	0	1	0	0	0	0	1	0	2	0	0	2

Volume Module:

Base Vol:	430	0	475	0	0	0	132	855	0	0	441	98
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	430	0	475	0	0	0	132	855	0	0	441	98
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	455	0	503	0	0	0	140	905	0	0	467	104
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	455	0	503	0	0	0	140	905	0	0	467	104
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	455	0	503	0	0	0	140	905	0	0	467	104

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	0.94	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1700	0	1800	0	0	0	1700	3600	0	0	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.27	0.00	0.28	0.00	0.00	0.00	0.08	0.25	0.00	0.00	0.13	0.06
Crit Moves:	****						****			****		
Green Time:	53.5	0.0	53.5	0.0	0.0	0.0	15.7	40.5	0.0	0.0	24.8	24.8
Volume/Cap:	0.50	0.00	0.52	0.00	0.00	0.00	0.52	0.62	0.00	0.00	0.52	0.23
Delay/Veh:	15.2	0.0	15.6	0.0	0.0	0.0	40.6	24.4	0.0	0.0	33.0	30.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	15.2	0.0	15.6	0.0	0.0	0.0	40.6	24.4	0.0	0.0	33.0	30.3
LOS by Move:	B	A	B	A	A	A	D	C	A	A	C	C
HCM2kAvgQ:	9	0	10	0	0	0	5	12	0	0	7	3

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

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Upper Santa Ana River Wash  
Existing (2004) Conditions  
P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.472  
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 27.3  
Optimal Cycle: 84 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	163	328	16	84	156	7	5	805	265	14	397	62
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	163	328	16	84	156	7	5	805	265	14	397	62
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	171	344	17	88	164	7	5	844	278	15	416	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	171	344	17	88	164	7	5	844	278	15	416	65
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	171	344	17	88	164	7	5	844	278	15	416	65

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	1800	1800	1700	3600	1800	1700	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.10	0.10	0.01	0.05	0.09	0.00	0.00	0.23	0.15	0.01	0.12	0.04
Crit Moves:	****			****			****			****		
Green Time:	16.2	32.6	32.6	11.6	28.0	28.0	12.6	37.8	37.8	10.0	35.2	35.2
Volume/Cap:	0.62	0.29	0.03	0.45	0.32	0.01	0.02	0.62	0.41	0.09	0.33	0.10
Delay/Veh:	43.3	25.3	23.0	42.8	28.9	26.0	38.4	26.2	23.3	41.1	23.9	21.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.3	25.3	23.0	42.8	28.9	26.0	38.4	26.2	23.3	41.1	23.9	21.8
LOS by Move:	D	C	C	D	C	C	D	C	C	D	C	C
HCM2kAvgQ:	6	4	0	3	4	0	0	11	6	0	5	1

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

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Upper Santa Ana River Wash  
Existing (2004) Conditions  
P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.634  
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 3.8  
Optimal Cycle: 30 Level Of Service: A

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	1	935	9	3	540	0	0	2	1	8	0	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	935	9	3	540	0	0	2	1	8	0	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	1	1025	10	3	592	0	0	2	1	9	0	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	1025	10	3	592	0	0	2	1	9	0	14
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	1	1025	10	3	592	0	0	2	1	9	0	14

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	0.94	1.00	0.94	0.94	1.00	0.94	0.94	1.00	0.94	0.94	1.00
Lanes:	0.01	0.99	1.00	0.01	0.99	0.00	0.00	1.00	1.00	1.00	0.00	1.00
Final Sat.:	2	1698	1800	9	1691	0	0	1700	1800	1700	0	1800

Capacity Analysis Module:

Vol/Sat:	0.60	0.60	0.01	0.35	0.35	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Crit Moves:	****									****		
Green Time:	86.0	86.0	86.0	86.0	86.0	0.0	0.0	10.0	10.0	10.0	0.0	10.0
Volume/Cap:	0.70	0.70	0.01	0.41	0.41	0.00	0.00	0.01	0.01	0.05	0.00	0.08
Delay/Veh:	4.0	4.0	1.0	1.7	1.7	0.0	0.0	40.6	40.5	40.8	0.0	41.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	4.0	4.0	1.0	1.7	1.7	0.0	0.0	40.6	40.5	40.8	0.0	41.0
LOS by Move:	A	A	A	A	A	A	A	D	D	D	A	D
HCM2kAvgQ:	13	13	0	4	4	0	0	0	0	0	0	0

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

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Upper Santa Ana River Wash  
Opening Year (2008) Background Volumes with Existing Plant Traffic  
A.M. Peak Hour

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Scenario Report

Scenario: 2008 NP AM  
Command: 2008 NP AM  
Volume: 2008 NP AM  
Geometry: Alternative C  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Paths  
Routes: Default Routes  
Configuration: 2004/2008

Upper Santa Ana River Wash  
 Opening Year (2008) Background Volumes with Existing Plant Traffic  
 A.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.672  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 35.6  
 Optimal Cycle: 80 Level Of Service: D

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	67	68	324	145	280	80	12	249	100	440	761	116
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	68	324	145	280	80	12	249	100	440	761	116
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	70	71	338	151	292	83	13	260	104	459	794	121
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	70	71	338	151	292	83	13	260	104	459	794	121
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	70	71	338	151	292	83	13	260	104	459	794	121

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.04	0.02	0.19	0.09	0.08	0.05	0.01	0.07	0.06	0.27	0.22	0.07
Crit Moves:			****	****			****			****		
Green Time:	10.0	26.0	26.0	10.0	26.0	26.0	15.6	26.0	26.0	30.0	40.4	40.4
Volume/Cap:	0.41	0.08	0.72	0.89	0.31	0.18	0.05	0.28	0.22	0.90	0.55	0.17
Delay/Veh:	43.9	28.0	39.2	83.7	30.0	28.9	36.0	29.7	29.3	52.3	23.2	19.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.9	28.0	39.2	83.7	30.0	28.9	36.0	29.7	29.3	52.3	23.2	19.1
LOS by Move:	D	C	D	F	C	C	D	C	C	D	C	B
HCM2kAvgQ:	3	1	11	8	4	2	0	3	3	18	10	2

Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
 Opening Year (2008) Background Volumes with Existing Plant Traffic  
 A.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.425  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 26.9  
 Optimal Cycle: 80 Level Of Service: C  
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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	2	0	1	0	1	1

Volume Module:

Base Vol:	159	303	12	32	446	338	109	2	56	5	2	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	159	303	12	32	446	338	109	2	56	5	2	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.00	0.87	0.87	0.87
PHF Volume:	183	348	14	37	513	389	125	2	0	6	2	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	183	348	14	37	513	389	125	2	0	6	2	52
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	183	348	14	37	513	389	125	2	0	6	2	52

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	3200	1800	1800	1700	1800	1800

Capacity Analysis Module:

Vol/Sat:	0.11	0.10	0.01	0.02	0.14	0.22	0.04	0.00	0.00	0.00	0.00	0.03
Crit Moves:	****			****			****			****		
Green Time:	18.6	40.4	40.4	15.6	37.4	37.4	10.0	26.0	0.0	10.0	26.0	26.0
Volume/Cap:	0.58	0.24	0.02	0.14	0.38	0.58	0.39	0.00	0.00	0.03	0.00	0.11
Delay/Veh:	39.7	19.7	17.9	36.7	23.0	26.3	42.9	27.4	0.0	40.7	27.4	28.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.7	19.7	17.9	36.7	23.0	26.3	42.9	27.4	0.0	40.7	27.4	28.3
LOS by Move:	D	B	B	D	C	C	D	C	A	D	C	C
HCM2kAvgQ:	6	4	0	1	6	10	2	0	0	0	0	1

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Background Volumes with Existing Plant Traffic  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Average Delay (sec/veh): 1.6 Worst Case Level Of Service: B[ 12.5]

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Approach:	North Bound			South Bound			East Bound			West Bound												
Movement:	L	T	R	L	T	R	L	T	R	L	T	R										
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign												
Rights:	Include			Include			Include			Include												
Lanes:	0	0	1	0	1		1	0	1	0	0		0	0	0	0	0	1	0	0	0	1

Volume Module:

Base Vol:	0	388	3	56	454	0	0	0	0	7	0	86
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	388	3	56	454	0	0	0	0	7	0	86
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	434	3	63	508	0	0	0	0	8	0	96
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	434	3	63	508	0	0	0	0	8	0	96

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	437	xxxx	xxxxx	xxxx	xxxx	xxxxx	1067	xxxx	434
Potent Cap.:	xxxx	xxxx	xxxxx	1133	xxxx	xxxxx	xxxx	xxxx	xxxxx	248	xxxx	626
Move Cap.:	xxxx	xxxx	xxxxx	1133	xxxx	xxxxx	xxxx	xxxx	xxxxx	237	xxxx	626
Volume/Cap:	xxxx	xxxx	xxxx	0.06	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	0.15

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	0.5
Control Del:	xxxxx	xxxx	xxxxx	8.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	20.7	xxxx	11.8
LOS by Move:	*	*	*	A	*	*	*	*	*	C	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			12.5		
ApproachLOS:	*			*			*			B		

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Background Volumes with Existing Plant Traffic  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #4 Alabama St/Cemex Acc.

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Average Delay (sec/veh): 1.6 Worst Case Level Of Service: B[ 11.6]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	0	0	1

Volume Module:

Base Vol:	0	330	7	74	387	0	0	0	0	6	0	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	330	7	74	387	0	0	0	0	6	0	61
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	369	8	83	433	0	0	0	0	7	0	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	369	8	83	433	0	0	0	0	7	0	68

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	377	xxxx	xxxxx	xxxx	xxxx	xxxxx	968	xxxx	369
Potent Cap.:	xxxx	xxxx	xxxxx	1193	xxxx	xxxxx	xxxx	xxxx	xxxxx	284	xxxx	681
Move Cap.:	xxxx	xxxx	xxxxx	1193	xxxx	xxxxx	xxxx	xxxx	xxxxx	269	xxxx	681
Volume/Cap:	xxxx	xxxx	xxxx	0.07	xxxx	xxxx	xxxx	xxxx	xxxx	0.02	xxxx	0.10

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	0.3
Control Del:	xxxxx	xxxx	xxxxx	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	18.7	xxxx	10.9
LOS by Move:	*	*	*	A	*	*	*	*	*	C	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			11.6		
ApproachLOS:	*			*			*			B		

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Background Volumes with Existing Plant Traffic  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #5 Church St/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.468  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 15.0  
 Optimal Cycle: 61 Level Of Service: B  
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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	17	17	10	17	17
Lanes:	0	0	0	0	0	0	1	0	0	0	0	0

Volume Module:

Base Vol:	0	0	0	144	0	69	11	707	0	0	1246	67
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	144	0	69	11	707	0	0	1246	67
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	0	0	162	0	78	12	796	0	0	1403	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	162	0	78	12	796	0	0	1403	75
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	162	0	78	12	796	0	0	1403	75

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1700	0	1800	1700	3600	0	0	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.10	0.00	0.04	0.01	0.22	0.00	0.00	0.39	0.04
Crit Moves:						****	****			****		
Green Time:	0.0	0.0	0.0	28.0	0.0	28.0	10.0	66.0	0.0	0.0	56.0	56.0
Volume/Cap:	0.00	0.00	0.00	0.34	0.00	0.15	0.07	0.34	0.00	0.00	0.70	0.07
Delay/Veh:	0.0	0.0	0.0	29.1	0.0	27.2	41.0	7.5	0.0	0.0	16.9	10.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	29.1	0.0	27.2	41.0	7.5	0.0	0.0	16.9	10.1
LOS by Move:	A	A	A	C	A	C	D	A	A	A	B	B
HCM2kAvgQ:	0	0	0	4	0	2	0	5	0	0	16	1

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
 Opening Year (2008) Background Volumes with Existing Plant Traffic  
 A.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.942  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 32.8  
 Optimal Cycle: 126 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	1	0	2

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Volume Module:

Base Vol:	0	0	0	169	0	169	0	314	538	743	1143	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	169	0	169	0	314	538	743	1143	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	179	0	179	0	333	571	788	1212	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	179	0	179	0	333	571	788	1212	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	179	0	179	0	333	571	788	1212	0

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Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	0.94	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1700	0	1800	0	3600	1800	1700	3600	0

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Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.11	0.00	0.10	0.00	0.09	0.32	0.46	0.34	0.00
Crit Moves:				****					****	****		
Green Time:	0.0	0.0	0.0	11.2	0.0	11.2	0.0	33.6	33.6	49.2	82.8	0.0
Volume/Cap:	0.00	0.00	0.00	0.94	0.00	0.89	0.00	0.28	0.94	0.94	0.41	0.00
Delay/Veh:	0.0	0.0	0.0	92.9	0.0	78.7	0.0	24.4	55.5	42.7	2.3	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	92.9	0.0	78.7	0.0	24.4	55.5	42.7	2.3	0.0
LOS by Move:	A	A	A	F	A	E	A	C	E	D	A	A
HCM2kAvgQ:	0	0	0	9	0	8	0	4	22	29	5	0

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

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Upper Santa Ana River Wash  
 Opening Year (2008) Background Volumes with Existing Plant Traffic  
 A.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.817  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 28.1  
 Optimal Cycle: 62 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18								
Lanes:	0	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	2	0	1

Volume Module:

Base Vol:	565	0	320	0	0	0	61	422	0	0	1321	264
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	565	0	320	0	0	0	61	422	0	0	1321	264
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	590	0	334	0	0	0	64	441	0	0	1380	276
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	590	0	334	0	0	0	64	441	0	0	1380	276
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	590	0	334	0	0	0	64	441	0	0	1380	276

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	0.94	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1700	0	1800	0	0	0	1700	3600	0	0	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.35	0.00	0.19	0.00	0.00	0.00	0.04	0.12	0.00	0.00	0.38	0.15
Crit Moves:	****						****			****		
Green Time:	39.9	0.0	39.9	0.0	0.0	0.0	10.0	54.1	0.0	0.0	44.1	44.1
Volume/Cap:	0.87	0.00	0.47	0.00	0.00	0.00	0.37	0.23	0.00	0.00	0.87	0.35
Delay/Veh:	39.4	0.0	22.6	0.0	0.0	0.0	43.5	12.1	0.0	0.0	30.9	18.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.4	0.0	22.6	0.0	0.0	0.0	43.5	12.1	0.0	0.0	30.9	18.7
LOS by Move:	D	A	C	A	A	A	D	B	A	A	C	B
HCM2kAvgQ:	21	0	8	0	0	0	2	3	0	0	22	6

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Background Volumes with Existing Plant Traffic  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.671  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 32.7  
 Optimal Cycle: 84 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

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Volume Module:

Base Vol:	143	106	10	61	181	43	30	383	231	46	1311	116
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	143	106	10	61	181	43	30	383	231	46	1311	116
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	156	116	11	67	197	47	33	418	252	50	1430	126
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	156	116	11	67	197	47	33	418	252	50	1430	126
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	156	116	11	67	197	47	33	418	252	50	1430	126

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Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	1800	1800	1700	3600	1800	1700	3600	1800

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Capacity Analysis Module:

Vol/Sat:	0.09	0.03	0.01	0.04	0.11	0.03	0.02	0.12	0.14	0.03	0.40	0.07
Crit Moves:	****				****		****				****	
Green Time:	10.1	28.1	28.1	10.0	28.0	28.0	10.0	39.7	39.7	14.2	43.9	43.9
Volume/Cap:	0.91	0.11	0.02	0.39	0.39	0.09	0.19	0.29	0.35	0.21	0.91	0.16
Delay/Veh:	86.9	26.8	26.0	43.6	29.6	26.7	41.8	20.7	21.4	38.4	33.9	17.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	86.9	26.8	26.0	43.6	29.6	26.7	41.8	20.7	21.4	38.4	33.9	17.0
LOS by Move:	F	C	C	D	C	C	D	C	C	D	C	B
HCM2kAvgQ:	8	1	0	2	5	1	1	4	5	2	24	2

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Background Volumes with Existing Plant Traffic  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.623  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 6.4  
 Optimal Cycle: 29 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	0	411	20	56	752	0	0	26	0	42	29	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	411	20	56	752	0	0	26	0	42	29	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	0	475	23	65	869	0	0	30	0	49	34	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	475	23	65	869	0	0	30	0	49	34	35
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	475	23	65	869	0	0	30	0	49	34	35

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	0.94	1.00	0.94	0.94	1.00	0.94	0.94	1.00	0.94	0.94	1.00
Lanes:	0.00	1.00	1.00	0.07	0.93	0.00	0.00	1.00	1.00	0.59	0.41	1.00
Final Sat.:	0	1700	1800	118	1582	0	0	1700	1800	1006	694	1800

Capacity Analysis Module:

Vol/Sat:	0.00	0.28	0.01	0.55	0.55	0.00	0.00	0.02	0.00	0.05	0.05	0.02
Crit Moves:	****						****					
Green Time:	0.0	86.0	86.0	86.0	86.0	0.0	0.0	10.0	0.0	10.0	10.0	10.0
Volume/Cap:	0.00	0.32	0.01	0.64	0.64	0.00	0.00	0.18	0.00	0.48	0.48	0.19
Delay/Veh:	0.0	1.5	1.0	3.1	3.1	0.0	0.0	41.7	0.0	44.7	44.7	41.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.5	1.0	3.1	3.1	0.0	0.0	41.7	0.0	44.7	44.7	41.8
LOS by Move:	A	A	A	A	A	A	A	D	A	D	D	D
HCM2kAvgQ:	0	3	0	10	10	0	0	1	0	3	3	1

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Opening Year (2008) Background Volumes with Existing Plant Traffic  
P.M. Peak Hour

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Scenario Report

Scenario: 2008 NP PM  
Command: 2008 NP PM  
Volume: 2008 NP PM  
Geometry: Alternative C  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Paths  
Routes: Default Routes  
Configuration: 2004/2008

Upper Santa Ana River Wash  
 Opening Year (2008) Background Volumes with Existing Plant Traffic  
 P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.902  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 56.1  
 Optimal Cycle: 101 Level Of Service: E

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	45	449	845	88	138	37	58	484	68	191	395	163
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	449	845	88	138	37	58	484	68	191	395	163
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	49	485	914	95	149	40	63	523	74	206	427	176
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	485	914	95	149	40	63	523	74	206	427	176
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	49	485	914	95	149	40	63	523	74	206	427	176

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.03	0.13	0.51	0.06	0.04	0.02	0.04	0.15	0.04	0.12	0.12	0.10
Crit Moves:			****	****			****			****		
Green Time:	15.3	45.2	45.2	10.0	39.9	39.9	10.2	26.0	26.0	10.8	26.6	26.6
Volume/Cap:	0.19	0.30	1.12	0.56	0.10	0.06	0.36	0.56	0.16	1.12	0.45	0.37
Delay/Veh:	37.3	17.5	98.6	47.1	18.9	18.5	43.1	32.8	28.7	147.9	30.9	30.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	37.3	17.5	98.6	47.1	18.9	18.5	43.1	32.8	28.7	147.9	30.9	30.4
LOS by Move:	D	B	F	D	B	B	D	C	C	F	C	C
HCM2kAvgQ:	1	5	44	4	1	1	2	8	2	13	6	5

Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Background Volumes with Existing Plant Traffic  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.483  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 35.0  
 Optimal Cycle: 80 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	2	0	1	0	1	1

Volume Module:

Base Vol:	70	727	3	1	302	94	591	2	161	4	2	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	70	727	3	1	302	94	591	2	161	4	2	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.00	0.90	0.90	0.90
PHF Volume:	78	809	3	1	336	105	657	2	0	4	2	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	809	3	1	336	105	657	2	0	4	2	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	78	809	3	1	336	105	657	2	0	4	2	24

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	3200	1800	1800	1700	1800	1800

Capacity Analysis Module:

Vol/Sat:	0.05	0.22	0.00	0.00	0.09	0.06	0.21	0.00	0.00	0.00	0.00	0.01
Crit Moves:	****			****			****			****		
Green Time:	10.9	29.2	29.2	10.0	28.3	28.3	26.8	38.1	0.0	14.7	26.0	26.0
Volume/Cap:	0.42	0.77	0.01	0.01	0.33	0.20	0.77	0.00	0.00	0.02	0.00	0.05
Delay/Veh:	43.1	35.8	25.1	40.5	28.5	27.5	38.0	19.2	0.0	36.5	27.4	27.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.1	35.8	25.1	40.5	28.5	27.5	38.0	19.2	0.0	36.5	27.4	27.8
LOS by Move:	D	D	C	D	C	C	D	B	A	D	C	C
HCM2kAvgQ:	3	13	0	0	4	2	12	0	0	0	0	1

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
 Opening Year (2008) Background Volumes with Existing Plant Traffic  
 P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Average Delay (sec/veh): 0.9 Worst Case Level Of Service: C[ 17.5]

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Approach:	North Bound			South Bound			East Bound			West Bound												
Movement:	L	T	R	L	T	R	L	T	R	L	T	R										
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign												
Rights:	Include			Include			Include			Include												
Lanes:	0	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1

Volume Module:

Base Vol:	0	768	0	52	416	0	0	0	0	0	3	0	34
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	768	0	52	416	0	0	0	0	0	3	0	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	861	0	58	466	0	0	0	0	0	3	0	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	861	0	58	466	0	0	0	0	0	3	0	38

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	861	xxxx	xxxxx	xxxx	xxxx	xxxxx	1444	xxxx	861
Potent Cap.:	xxxx	xxxx	xxxxx	789	xxxx	xxxxx	xxxx	xxxx	xxxxx	147	xxxx	358
Move Cap.:	xxxx	xxxx	xxxxx	789	xxxx	xxxxx	xxxx	xxxx	xxxxx	139	xxxx	358
Volume/Cap:	xxxx	xxxx	xxxx	0.07	xxxx	xxxx	xxxx	xxxx	xxxx	0.02	xxxx	0.11

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	0.4
Control Del:	xxxxx	xxxx	xxxxx	9.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	31.6	xxxx	16.2
LOS by Move:	*	*	*	A	*	*	*	*	*	D	*	C
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			17.5		
ApproachLOS:	*			*			*			C		

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Background Volumes with Existing Plant Traffic  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #4 Alabama St/Cemex Acc.

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Average Delay (sec/veh): 0.7 Worst Case Level Of Service: C[ 17.4]

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Approach:	North Bound			South Bound			East Bound			West Bound												
Movement:	L	T	R	L	T	R	L	T	R	L	T	R										
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign												
Rights:	Include			Include			Include			Include												
Lanes:	0	0	1	0	1		1	0	1	0	0		0	0	0	0	0	1	0	0	0	1

Volume Module:

Base Vol:	0	738	1	19	400	0	0	0	0	6	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	738	1	19	400	0	0	0	0	6	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	827	1	21	448	0	0	0	0	7	0	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	827	1	21	448	0	0	0	0	7	0	34

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	828	xxxx	xxxxx	xxxx	xxxx	xxxxx	1318	xxxx	827
Potent Cap.:	xxxx	xxxx	xxxxx	812	xxxx	xxxxx	xxxx	xxxx	xxxxx	175	xxxx	374
Move Cap.:	xxxx	xxxx	xxxxx	812	xxxx	xxxxx	xxxx	xxxx	xxxxx	172	xxxx	374
Volume/Cap:	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.04	xxxx	0.09

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	0.3
Control Del:	xxxxx	xxxx	xxxxx	9.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	26.8	xxxx	15.6
LOS by Move:	*	*	*	A	*	*	*	*	*	D	*	C
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			17.4		
ApproachLOS:	*			*			*			C		

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Background Volumes with Existing Plant Traffic  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #5 Church St/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.456  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 14.8  
 Optimal Cycle: 61 Level Of Service: B  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	17	17	10	17	17
Lanes:	0	0	0	0	0	0	1	0	0	0	0	0

Volume Module:

Base Vol:	0	0	0	77	0	26	64	1354	0	0	723	139
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	77	0	26	64	1354	0	0	723	139
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	0	0	0	85	0	29	70	1486	0	0	794	153
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	85	0	29	70	1486	0	0	794	153
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	85	0	29	70	1486	0	0	794	153

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1700	0	1800	1700	3600	0	0	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.05	0.00	0.02	0.04	0.41	0.00	0.00	0.22	0.08
Crit Moves:						****		****		****		
Green Time:	0.0	0.0	0.0	28.0	0.0	28.0	20.6	66.0	0.0	0.0	45.4	45.4
Volume/Cap:	0.00	0.00	0.00	0.18	0.00	0.06	0.20	0.63	0.00	0.00	0.49	0.19
Delay/Veh:	0.0	0.0	0.0	27.5	0.0	26.4	33.2	10.4	0.0	0.0	19.3	16.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	27.5	0.0	26.4	33.2	10.4	0.0	0.0	19.3	16.4
LOS by Move:	A	A	A	C	A	C	C	B	A	A	B	B
HCM2kAvgQ:	0	0	0	2	0	1	2	14	0	0	9	3

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Background Volumes with Existing Plant Traffic  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.723  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 23.8  
 Optimal Cycle: 45 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	1	0	2

Volume Module:

Base Vol:	0	0	0	254	0	100	0	986	446	366	756	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	254	0	100	0	986	446	366	756	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	271	0	106	0	1050	475	390	805	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	271	0	106	0	1050	475	390	805	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	271	0	106	0	1050	475	390	805	0

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	0.94	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1700	0	1800	0	3600	1800	1700	3600	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.06	0.00	0.29	0.26	0.23	0.22	0.00
Crit Moves:				****			****			****		
Green Time:	0.0	0.0	0.0	22.0	0.0	22.0	0.0	40.3	40.3	31.7	72.0	0.0
Volume/Cap:	0.00	0.00	0.00	0.72	0.00	0.27	0.00	0.72	0.65	0.72	0.31	0.00
Delay/Veh:	0.0	0.0	0.0	43.0	0.0	32.7	0.0	27.0	26.4	35.1	5.1	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	43.0	0.0	32.7	0.0	27.0	26.4	35.1	5.1	0.0
LOS by Move:	A	A	A	D	A	C	A	C	C	D	A	A
HCM2kAvgQ:	0	0	0	10	0	3	0	15	12	12	4	0

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

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Upper Santa Ana River Wash  
 Opening Year (2008) Background Volumes with Existing Plant Traffic  
 P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.701  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 25.3  
 Optimal Cycle: 44 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18
Lanes:	0	1	0	0	0	0	1	0	2	0	0	2

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	462	0	572	0	0	0	142	1098	0	0	660	123
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	462	0	572	0	0	0	142	1098	0	0	660	123
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	489	0	605	0	0	0	150	1162	0	0	698	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	489	0	605	0	0	0	150	1162	0	0	698	130
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	489	0	605	0	0	0	150	1162	0	0	698	130

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	0.94	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1700	0	1800	0	0	0	1700	3600	0	0	3600	1800

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.29	0.00	0.34	0.00	0.00	0.00	0.09	0.32	0.00	0.00	0.19	0.07
Crit Moves:	****						****			****		
Green Time:	48.0	0.0	48.0	0.0	0.0	0.0	15.7	46.0	0.0	0.0	30.4	30.4
Volume/Cap:	0.60	0.00	0.70	0.00	0.00	0.00	0.56	0.70	0.00	0.00	0.64	0.24
Delay/Veh:	20.2	0.0	23.0	0.0	0.0	0.0	41.8	22.9	0.0	0.0	31.3	26.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.2	0.0	23.0	0.0	0.0	0.0	41.8	22.9	0.0	0.0	31.3	26.4
LOS by Move:	C	A	C	A	A	A	D	C	A	A	C	C
HCM2kAvgQ:	12	0	15	0	0	0	5	15	0	0	10	3

Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Background Volumes with Existing Plant Traffic  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.580  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 30.3  
 Optimal Cycle: 84 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	189	355	41	139	169	37	41	1032	305	30	536	98
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	189	355	41	139	169	37	41	1032	305	30	536	98
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	198	372	43	146	177	39	43	1082	320	31	562	103
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	198	372	43	146	177	39	43	1082	320	31	562	103
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	198	372	43	146	177	39	43	1082	320	31	562	103

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	1800	1800	1700	3600	1800	1700	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.12	0.10	0.02	0.09	0.10	0.02	0.03	0.30	0.18	0.02	0.16	0.06
Crit Moves:	****			****			****			****		
Green Time:	15.1	31.8	31.8	11.3	28.0	28.0	12.9	38.9	38.9	10.0	36.0	36.0
Volume/Cap:	0.77	0.33	0.08	0.76	0.35	0.08	0.20	0.77	0.46	0.18	0.43	0.16
Delay/Veh:	54.3	26.1	23.9	58.6	29.2	26.6	39.4	29.4	23.2	41.8	24.5	21.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.3	26.1	23.9	58.6	29.2	26.6	39.4	29.4	23.2	41.8	24.5	21.8
LOS by Move:	D	C	C	E	C	C	D	C	C	D	C	C
HCM2kAvgQ:	8	4	1	6	4	1	1	16	7	1	7	2

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
 Opening Year (2008) Background Volumes with Existing Plant Traffic  
 P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.712  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 5.0  
 Optimal Cycle: 37 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	1	1050	9	3	618	0	0	2	1	8	0	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	1050	9	3	618	0	0	2	1	8	0	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	1	1151	10	3	678	0	0	2	1	9	0	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	1151	10	3	678	0	0	2	1	9	0	14
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	1	1151	10	3	678	0	0	2	1	9	0	14

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	0.94	1.00	0.94	0.94	1.00	0.94	0.94	1.00	0.94	0.94	1.00
Lanes:	0.01	0.99	1.00	0.01	0.99	0.00	0.00	1.00	1.00	1.00	0.00	1.00
Final Sat.:	2	1698	1800	8	1692	0	0	1700	1800	1700	0	1800

Capacity Analysis Module:

Vol/Sat:	0.68	0.68	0.01	0.40	0.40	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Crit Moves:	****									****		
Green Time:	86.0	86.0	86.0	86.0	86.0	0.0	0.0	10.0	10.0	10.0	0.0	10.0
Volume/Cap:	0.79	0.79	0.01	0.47	0.47	0.00	0.00	0.01	0.01	0.05	0.00	0.08
Delay/Veh:	6.0	6.0	1.0	1.9	1.9	0.0	0.0	40.6	40.5	40.8	0.0	41.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	6.0	6.0	1.0	1.9	1.9	0.0	0.0	40.6	40.5	40.8	0.0	41.0
LOS by Move:	A	A	A	A	A	A	A	D	D	D	A	D
HCM2kAvgQ:	18	18	0	6	6	0	0	0	0	0	0	0

Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. A  
A.M. Peak Hour

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Scenario Report

Scenario: 2008 Alt 1A AM  
Command: 2008 Alt 1A AM  
Volume: 2008 Alt 1A AM  
Geometry: Alternative A  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Paths  
Routes: Default Routes  
Configuration: 2004/2008

Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. A  
 A.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.617  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 33.4  
 Optimal Cycle: 80 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	69	68	270	145	280	80	12	246	105	410	761	116
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	69	68	270	145	280	80	12	246	105	410	761	116
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	72	71	282	151	292	83	13	257	109	428	794	121
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	71	282	151	292	83	13	257	109	428	794	121
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	72	71	282	151	292	83	13	257	109	428	794	121

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.04	0.02	0.16	0.09	0.08	0.05	0.01	0.07	0.06	0.25	0.22	0.07
Crit Moves:			****	****			****			****		
Green Time:	10.1	26.0	26.0	10.5	26.3	26.3	15.4	26.0	26.0	29.5	40.1	40.1
Volume/Cap:	0.42	0.08	0.60	0.85	0.31	0.18	0.05	0.27	0.23	0.85	0.55	0.17
Delay/Veh:	43.8	28.0	34.7	74.4	29.7	28.6	36.1	29.6	29.4	46.2	23.5	19.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.8	28.0	34.7	74.4	29.7	28.6	36.1	29.6	29.4	46.2	23.5	19.3
LOS by Move:	D	C	C	E	C	C	D	C	C	D	C	B
HCM2kAvgQ:	3	1	8	7	4	2	0	3	3	16	10	2

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. A  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.425  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 26.7  
 Optimal Cycle: 78 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	25	25	10	25	25	10	25	25	10	25	25
Lanes:	1	0	2	0	1	0	1	2	0	1	0	1

Volume Module:

Base Vol:	159	251	12	32	421	338	109	2	56	5	2	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	159	251	12	32	421	338	109	2	56	5	2	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.00	0.87	0.87	0.87
PHF Volume:	183	289	14	37	484	389	125	2	0	6	2	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	183	289	14	37	484	389	125	2	0	6	2	52
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	183	289	14	37	484	389	125	2	0	6	2	52

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	3200	1800	1800	1700	1800	1800

Capacity Analysis Module:

Vol/Sat:	0.11	0.08	0.01	0.02	0.13	0.22	0.04	0.00	0.00	0.00	0.00	0.03
Crit Moves:	****			****			****			****		
Green Time:	19.0	40.7	40.7	16.3	38.0	38.0	10.0	25.0	0.0	10.0	25.0	25.0
Volume/Cap:	0.57	0.20	0.02	0.13	0.35	0.57	0.39	0.01	0.00	0.03	0.01	0.11
Delay/Veh:	39.2	19.2	17.7	36.0	22.3	25.6	42.9	28.2	0.0	40.7	28.2	29.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.2	19.2	17.7	36.0	22.3	25.6	42.9	28.2	0.0	40.7	28.2	29.1
LOS by Move:	D	B	B	D	C	C	D	C	A	D	C	C
HCM2kAvgQ:	6	3	0	1	5	10	2	0	0	0	0	1

Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. A  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Average Delay (sec/veh): 0.8 Worst Case Level Of Service: B[ 12.5]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	390	3	26	459	0	0	0	0	7	0	32
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	390	3	26	459	0	0	0	0	7	0	32
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	436	3	29	513	0	0	0	0	8	0	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	436	3	29	513	0	0	0	0	8	0	36

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxx	xxxx	xxxxx	440	xxxx	xxxxx	xxxx	xxxx	xxxxx	1008	xxxx	436
Potent Cap.:	xxxx	xxxx	xxxxx	1131	xxxx	xxxxx	xxxx	xxxx	xxxxx	269	xxxx	624
Move Cap.:	xxxx	xxxx	xxxxx	1131	xxxx	xxxxx	xxxx	xxxx	xxxxx	264	xxxx	624
Volume/Cap:	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	0.06

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	0.2
Control Del:	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	19.1	xxxx	11.1
LOS by Move:	*	*	*	A	*	*	*	*	*	C	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			12.5		
ApproachLOS:	*			*			*			B		

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

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Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. A  
 A.M. Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #4 Alabama St/Cemex Acc.

\*\*\*\*\*

Average Delay (sec/veh): 1.7 Worst Case Level Of Service: B[ 11.6]

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Approach:	North Bound			South Bound			East Bound			West Bound												
Movement:	L	T	R	L	T	R	L	T	R	L	T	R										
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign												
Rights:	Include			Include			Include			Include												
Lanes:	0	0	1	0	1		1	0	1	0	0		0	0	0	0	0	1	0	0	0	1

Volume Module:

Base Vol:	0	330	7	79	387	0	0	0	0	0	6	0	63
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	330	7	79	387	0	0	0	0	0	6	0	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	369	8	88	433	0	0	0	0	0	7	0	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	369	8	88	433	0	0	0	0	0	7	0	70

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	377	xxxx	xxxxx	xxxx	xxxx	xxxxx	979	xxxx	369
Potent Cap.:	xxxx	xxxx	xxxxx	1193	xxxx	xxxxx	xxxx	xxxx	xxxxx	280	xxxx	681
Move Cap.:	xxxx	xxxx	xxxxx	1193	xxxx	xxxxx	xxxx	xxxx	xxxxx	264	xxxx	681
Volume/Cap:	xxxx	xxxx	xxxx	0.07	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	0.10

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	0.3
Control Del:	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	19.0	xxxx	10.9
LOS by Move:	*	*	*	A	*	*	*	*	*	C	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			11.6		
ApproachLOS:	*			*			*			B		

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. A  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #5 Church St/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.458  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 14.9  
 Optimal Cycle: 61 Level Of Service: B  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	17	17	10	17	17
Lanes:	0	0	0	0	0	0	1	0	0	0	0	0

Volume Module:

Base Vol:	0	0	0	144	0	69	11	650	0	0	1216	67
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	144	0	69	11	650	0	0	1216	67
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	0	0	162	0	78	12	732	0	0	1369	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	162	0	78	12	732	0	0	1369	75
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	162	0	78	12	732	0	0	1369	75

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1700	0	1800	1700	3600	0	0	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.10	0.00	0.04	0.01	0.20	0.00	0.00	0.38	0.04
Crit Moves:						****	****			****		
Green Time:	0.0	0.0	0.0	28.0	0.0	28.0	10.0	66.0	0.0	0.0	56.0	56.0
Volume/Cap:	0.00	0.00	0.00	0.34	0.00	0.15	0.07	0.31	0.00	0.00	0.68	0.07
Delay/Veh:	0.0	0.0	0.0	29.1	0.0	27.2	41.0	7.3	0.0	0.0	16.6	10.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	29.1	0.0	27.2	41.0	7.3	0.0	0.0	16.6	10.1
LOS by Move:	A	A	A	C	A	C	D	A	A	A	B	B
HCM2kAvgQ:	0	0	0	4	0	2	0	5	0	0	16	1

Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. A  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #6 Truck Access Road/5th St

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Average Delay (sec/veh): 0.0 Worst Case Level Of Service: A[ 0.0]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Ignore			Include			Include			Include		
Lanes:	0	0	1	0	0	0	0	2	0	0	2	1

Volume Module:

Base Vol:	0	0	93	0	0	0	0	795	0	0	1283	87
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	93	0	0	0	0	795	0	0	1283	87
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.00	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	0	0	0	0	884	0	0	1427	97
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	0	0	0	0	884	0	0	1427	97

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx

Level of Service Module:

2Way95thQ:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. A  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.950  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 33.5  
 Optimal Cycle: 134 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	1	0	2

Volume Module:

Base Vol:	0	0	0	163	0	179	0	319	569	725	1190	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	163	0	179	0	319	569	725	1190	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	173	0	190	0	338	603	769	1262	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	173	0	190	0	338	603	769	1262	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	173	0	190	0	338	603	769	1262	0

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	0.94	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1700	0	1800	0	3600	1800	1700	3600	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.10	0.00	0.11	0.00	0.09	0.34	0.45	0.35	0.00
Crit Moves:						****			****	****		
Green Time:	0.0	0.0	0.0	11.1	0.0	11.1	0.0	35.3	35.3	47.6	82.9	0.0
Volume/Cap:	0.00	0.00	0.00	0.92	0.00	0.95	0.00	0.27	0.95	0.95	0.42	0.00
Delay/Veh:	0.0	0.0	0.0	86.4	0.0	93.5	0.0	23.2	55.5	45.4	2.3	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	86.4	0.0	93.5	0.0	23.2	55.5	45.4	2.3	0.0
LOS by Move:	A	A	A	F	A	F	A	C	E	D	A	A
HCM2kAvgQ:	0	0	0	9	0	10	0	4	23	29	5	0

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. A  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.848  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 30.5  
 Optimal Cycle: 71 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18								
Lanes:	0	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	2	0	1

Volume Module:

Base Vol:	612	0	284	0	0	0	69	413	0	0	1303	261
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	612	0	284	0	0	0	69	413	0	0	1303	261
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	639	0	297	0	0	0	72	432	0	0	1362	273
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	639	0	297	0	0	0	72	432	0	0	1362	273
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	639	0	297	0	0	0	72	432	0	0	1362	273

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	0.94	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1700	0	1800	0	0	0	1700	3600	0	0	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.38	0.00	0.16	0.00	0.00	0.00	0.04	0.12	0.00	0.00	0.38	0.15
Crit Moves:	****						****			****		
Green Time:	41.9	0.0	41.9	0.0	0.0	0.0	10.0	52.1	0.0	0.0	42.1	42.1
Volume/Cap:	0.90	0.00	0.39	0.00	0.00	0.00	0.42	0.23	0.00	0.00	0.90	0.36
Delay/Veh:	41.3	0.0	20.6	0.0	0.0	0.0	44.0	13.1	0.0	0.0	34.5	20.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.3	0.0	20.6	0.0	0.0	0.0	44.0	13.1	0.0	0.0	34.5	20.0
LOS by Move:	D	A	C	A	A	A	D	B	A	A	C	C
HCM2kAvgQ:	23	0	6	0	0	0	3	4	0	0	23	6

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. A  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.657  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 31.2  
 Optimal Cycle: 84 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	122	106	10	61	181	43	30	383	186	46	1311	116
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	122	106	10	61	181	43	30	383	186	46	1311	116
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	133	116	11	67	197	47	33	418	203	50	1430	126
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	133	116	11	67	197	47	33	418	203	50	1430	126
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	133	116	11	67	197	47	33	418	203	50	1430	126

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	1800	1800	1700	3600	1800	1700	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.08	0.03	0.01	0.04	0.11	0.03	0.02	0.12	0.11	0.03	0.40	0.07
Crit Moves:	****			****			****			****		
Green Time:	10.0	28.0	28.0	10.0	28.0	28.0	10.0	39.8	39.8	14.2	44.0	44.0
Volume/Cap:	0.78	0.11	0.02	0.39	0.39	0.09	0.19	0.29	0.28	0.21	0.90	0.16
Delay/Veh:	64.6	26.8	26.1	43.6	29.6	26.7	41.8	20.6	20.6	38.3	33.6	17.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	64.6	26.8	26.1	43.6	29.6	26.7	41.8	20.6	20.6	38.3	33.6	17.0
LOS by Move:	E	C	C	D	C	C	D	C	C	D	C	B
HCM2kAvgQ:	6	1	0	2	5	1	1	4	4	2	24	2

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. A  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.621  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 9.3  
 Optimal Cycle: 29 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	0	411	21	11	752	0	0	88	0	43	70	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	411	21	11	752	0	0	88	0	43	70	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	0	475	24	13	869	0	0	102	0	50	81	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	475	24	13	869	0	0	102	0	50	81	10
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	475	24	13	869	0	0	102	0	50	81	10

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	0.94	1.00	0.94	0.94	1.00	0.94	0.94	1.00	0.94	0.94	1.00
Lanes:	0.00	1.00	1.00	0.01	0.99	0.00	0.00	1.00	1.00	0.38	0.62	1.00
Final Sat.:	0	1700	1800	25	1675	0	0	1700	1800	647	1053	1800

Capacity Analysis Module:

Vol/Sat:	0.00	0.28	0.01	0.52	0.52	0.00	0.00	0.06	0.00	0.08	0.08	0.01
Crit Moves:	****						****					
Green Time:	0.0	83.6	83.6	83.6	83.6	0.0	0.0	12.4	0.0	12.4	12.4	12.4
Volume/Cap:	0.00	0.33	0.02	0.62	0.62	0.00	0.00	0.48	0.00	0.62	0.62	0.05
Delay/Veh:	0.0	2.0	1.4	3.6	3.6	0.0	0.0	42.6	0.0	47.2	47.2	38.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	2.0	1.4	3.6	3.6	0.0	0.0	42.6	0.0	47.2	47.2	38.7
LOS by Move:	A	A	A	A	A	A	A	D	A	D	D	D
HCM2kAvgQ:	0	4	0	10	10	0	0	4	0	5	5	0

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Opening Year (2007) Conditions -- Land Use Alt. 1, Access Alt. A  
P.M. Peak Hour

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Scenario Report

Scenario: 2008 Alt 1A PM  
Command: 2008 Alt 1A PM  
Volume: 2008 Alt 1A PM  
Geometry: Alternative A  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Paths  
Routes: Default Routes  
Configuration: 2004/2008

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 Upper Santa Ana River Wash  
 Opening Year (2007) Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.862  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 47.3  
 Optimal Cycle: 83 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	45	449	830	88	138	37	58	484	69	146	395	163
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	449	830	88	138	37	58	484	69	146	395	163
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	49	485	897	95	149	40	63	523	75	158	427	176
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	485	897	95	149	40	63	523	75	158	427	176
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	49	485	897	95	149	40	63	523	75	158	427	176

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.03	0.13	0.50	0.06	0.04	0.02	0.04	0.15	0.04	0.09	0.12	0.10
Crit Moves:			****	****			****			****		
Green Time:	15.6	46.0	46.0	10.0	40.4	40.4	10.0	26.0	26.0	10.0	26.0	26.0
Volume/Cap:	0.18	0.29	1.08	0.56	0.10	0.05	0.37	0.56	0.16	0.93	0.46	0.38
Delay/Veh:	37.0	17.0	83.4	47.1	18.5	18.2	43.4	32.8	28.7	93.2	31.4	30.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	37.0	17.0	83.4	47.1	18.5	18.2	43.4	32.8	28.7	93.2	31.4	30.9
LOS by Move:	D	B	F	D	B	B	D	C	C	F	C	C
HCM2kAvgQ:	1	5	41	4	1	1	2	8	2	8	6	5

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2007) Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.478  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 34.2  
 Optimal Cycle: 78 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	25	25	10	25	25	10	25	25	10	25	25
Lanes:	1	0	2	0	1	0	1	2	0	1	0	1

Volume Module:

Base Vol:	70	712	3	1	258	94	591	2	161	4	2	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	70	712	3	1	258	94	591	2	161	4	2	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.00	0.90	0.90	0.90
PHF Volume:	78	792	3	1	287	105	657	2	0	4	2	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	792	3	1	287	105	657	2	0	4	2	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	78	792	3	1	287	105	657	2	0	4	2	24

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	3200	1800	1800	1700	1800	1800

Capacity Analysis Module:

Vol/Sat:	0.05	0.22	0.00	0.00	0.08	0.06	0.21	0.00	0.00	0.00	0.00	0.01
Crit Moves:	****			****			****			****		
Green Time:	11.3	29.5	29.5	10.0	28.2	28.2	27.5	37.5	0.0	15.0	25.0	25.0
Volume/Cap:	0.41	0.75	0.01	0.01	0.28	0.21	0.75	0.00	0.00	0.02	0.00	0.05
Delay/Veh:	42.7	34.8	24.9	40.5	28.2	27.6	36.6	19.5	0.0	36.2	28.2	28.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.7	34.8	24.9	40.5	28.2	27.6	36.6	19.5	0.0	36.2	28.2	28.6
LOS by Move:	D	C	C	D	C	C	D	B	A	D	C	C
HCM2kAvgQ:	3	13	0	0	4	2	12	0	0	0	0	1

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

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 Upper Santa Ana River Wash  
 Opening Year (2007) Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Average Delay (sec/veh): 0.4 Worst Case Level Of Service: C[ 17.2]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	768	0	7	417	0	0	0	0	3	0	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	768	0	7	417	0	0	0	0	3	0	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	861	0	8	467	0	0	0	0	3	0	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	861	0	8	467	0	0	0	0	3	0	21

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxx	xxxx	xxxxx	861	xxxx	xxxxx	xxxx	xxxx	xxxxx	1344	xxxx	861
Potent Cap.:	xxxx	xxxx	xxxxx	789	xxxx	xxxxx	xxxx	xxxx	xxxxx	169	xxxx	358
Move Cap.:	xxxx	xxxx	xxxxx	789	xxxx	xxxxx	xxxx	xxxx	xxxxx	168	xxxx	358
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.02	xxxx	0.06

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	0.2
Control Del:	xxxxx	xxxx	xxxxx	9.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	26.9	xxxx	15.7
LOS by Move:	*	*	*	A	*	*	*	*	*	D	*	C
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			17.2		
ApproachLOS:	*			*			*			C		

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

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 Upper Santa Ana River Wash  
 Opening Year (2007) Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #4 Alabama St/Cemex Acc.

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Average Delay (sec/veh): 0.7 Worst Case Level Of Service: C[ 17.5]

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Approach:	North Bound			South Bound			East Bound			West Bound												
Movement:	L	T	R	L	T	R	L	T	R	L	T	R										
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign												
Rights:	Include			Include			Include			Include												
Lanes:	0	0	1	0	1		1	0	1	0	0		0	0	0	0	0	1	0	0	0	1

Volume Module:

Base Vol:	0	738	1	20	400	0	0	0	0	0	6	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	738	1	20	400	0	0	0	0	0	6	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	827	1	22	448	0	0	0	0	0	7	0	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	827	1	22	448	0	0	0	0	0	7	0	34

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	828	xxxx	xxxxx	xxxx	xxxx	xxxxx	1321	xxxx	827
Potent Cap.:	xxxx	xxxx	xxxxx	812	xxxx	xxxxx	xxxx	xxxx	xxxxx	175	xxxx	374
Move Cap.:	xxxx	xxxx	xxxxx	812	xxxx	xxxxx	xxxx	xxxx	xxxxx	171	xxxx	374
Volume/Cap:	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.04	xxxx	0.09

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	0.3
Control Del:	xxxxx	xxxx	xxxxx	9.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	26.9	xxxx	15.6
LOS by Move:	*	*	*	A	*	*	*	*	*	D	*	C
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			17.5		
ApproachLOS:	*			*			*			C		

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

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 Upper Santa Ana River Wash  
 Opening Year (2007) Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #5 Church St/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.451  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 14.8  
 Optimal Cycle: 61 Level Of Service: B  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	17	17	10	17	17
Lanes:	0	0	0	0	0	0	1	0	0	0	0	0

Volume Module:

Base Vol:	0	0	0	77	0	26	64	1339	0	0	678	139
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	77	0	26	64	1339	0	0	678	139
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	0	0	0	85	0	29	70	1470	0	0	744	153
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	85	0	29	70	1470	0	0	744	153
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	85	0	29	70	1470	0	0	744	153

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1700	0	1800	1700	3600	0	0	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.05	0.00	0.02	0.04	0.41	0.00	0.00	0.21	0.08
Crit Moves:						****		****		****		
Green Time:	0.0	0.0	0.0	28.0	0.0	28.0	21.5	66.0	0.0	0.0	44.5	44.5
Volume/Cap:	0.00	0.00	0.00	0.18	0.00	0.06	0.19	0.62	0.00	0.00	0.46	0.19
Delay/Veh:	0.0	0.0	0.0	27.5	0.0	26.4	32.4	10.3	0.0	0.0	19.6	17.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	27.5	0.0	26.4	32.4	10.3	0.0	0.0	19.6	17.0
LOS by Move:	A	A	A	C	A	C	C	B	A	A	B	B
HCM2kAvgQ:	0	0	0	2	0	1	2	13	0	0	8	3

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2007) Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #6 Truck Access Road/5th St

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Average Delay (sec/veh): 0.0 Worst Case Level Of Service: A[ 0.0]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Ignore			Include			Include			Include		
Lanes:	0	0	1	0	0	0	0	2	0	0	2	1

Volume Module:

Base Vol:	0	0	30	0	0	0	0	1418	0	0	816	53
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	30	0	0	0	0	1418	0	0	816	53
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.00	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	0	0	0	0	0	0	0	1551	0	0	893	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	0	0	0	0	1551	0	0	893	58

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx

Level of Service Module:

2Way95thQ:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

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 Upper Santa Ana River Wash  
 Opening Year (2007) Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.719  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 23.6  
 Optimal Cycle: 44 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	1	0	2

Volume Module:

Base Vol:	0	0	0	254	0	101	0	990	457	357	763	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	254	0	101	0	990	457	357	763	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	271	0	108	0	1054	487	380	813	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	271	0	108	0	1054	487	380	813	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	271	0	108	0	1054	487	380	813	0

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	0.94	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1700	0	1800	0	3600	1800	1700	3600	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.06	0.00	0.29	0.27	0.22	0.23	0.00
Crit Moves:				****				****				
Green Time:	0.0	0.0	0.0	22.1	0.0	22.1	0.0	40.7	40.7	31.1	71.9	0.0
Volume/Cap:	0.00	0.00	0.00	0.72	0.00	0.27	0.00	0.72	0.66	0.72	0.31	0.00
Delay/Veh:	0.0	0.0	0.0	42.6	0.0	32.6	0.0	26.6	26.4	35.3	5.2	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	42.6	0.0	32.6	0.0	26.6	26.4	35.3	5.2	0.0
LOS by Move:	A	A	A	D	A	C	A	C	C	D	A	A
HCM2kAvgQ:	0	0	0	10	0	3	0	15	13	12	5	0

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

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Upper Santa Ana River Wash
Opening Year (2007) Conditions -- Land Use Alt. 1, Access Alt. A
P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.699
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 25.3
Optimal Cycle: 44 Level Of Service: C

\*\*\*\*\*

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table showing Volume Module calculations: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module:

Table showing Saturation Flow Module calculations: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:

Table showing Capacity Analysis Module calculations: Vol/Sat, Crit Moves, Green Time, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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 Upper Santa Ana River Wash  
 Opening Year (2007) Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.572  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 29.9  
 Optimal Cycle: 84 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	2	0	1	0	1	0	2	0	1	0

Volume Module:

Base Vol:	177	355	41	139	169	37	41	1032	302	30	536	98
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	177	355	41	139	169	37	41	1032	302	30	536	98
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	186	372	43	146	177	39	43	1082	317	31	562	103
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	186	372	43	146	177	39	43	1082	317	31	562	103
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	186	372	43	146	177	39	43	1082	317	31	562	103

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	1800	1800	1700	3600	1800	1700	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.11	0.10	0.02	0.09	0.10	0.02	0.03	0.30	0.18	0.02	0.16	0.06
Crit Moves:	****			****			****			****		
Green Time:	14.4	31.2	31.2	11.2	28.0	28.0	13.1	39.6	39.6	10.0	36.6	36.6
Volume/Cap:	0.76	0.33	0.08	0.77	0.35	0.08	0.19	0.76	0.44	0.18	0.43	0.16
Delay/Veh:	54.0	26.5	24.3	60.4	29.2	26.6	39.2	28.5	22.6	41.8	24.1	21.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.0	26.5	24.3	60.4	29.2	26.6	39.2	28.5	22.6	41.8	24.1	21.5
LOS by Move:	D	C	C	E	C	C	D	C	C	D	C	C
HCM2kAvgQ:	8	4	1	7	4	1	1	16	7	1	7	2

Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2007) Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.722  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 5.2  
 Optimal Cycle: 38 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	0	1	0	0	1

Volume Module:

Base Vol:	1	1050	9	0	618	0	0	11	1	8	15	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	1050	9	0	618	0	0	11	1	8	15	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	1	1151	10	0	678	0	0	12	1	9	16	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	1151	10	0	678	0	0	12	1	9	16	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	1	1151	10	0	678	0	0	12	1	9	16	1

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	0.94	1.00	0.94	1.00	1.00	0.94	0.94	1.00	0.94	0.94	1.00
Lanes:	0.01	0.99	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.35	0.65	1.00
Final Sat.:	2	1698	1800	0	1800	0	0	1700	1800	591	1109	1800

Capacity Analysis Module:

Vol/Sat:	0.68	0.68	0.01	0.00	0.38	0.00	0.00	0.01	0.00	0.01	0.01	0.00
Crit Moves:	****									****		
Green Time:	86.0	86.0	86.0	0.0	86.0	0.0	0.0	10.0	10.0	10.0	10.0	10.0
Volume/Cap:	0.79	0.79	0.01	0.00	0.44	0.00	0.00	0.07	0.01	0.15	0.15	0.01
Delay/Veh:	6.0	6.0	1.0	0.0	1.8	0.0	0.0	41.0	40.5	41.5	41.5	40.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	6.0	6.0	1.0	0.0	1.8	0.0	0.0	41.0	40.5	41.5	41.5	40.5
LOS by Move:	A	A	A	A	A	A	A	D	D	D	D	D
HCM2kAvgQ:	18	18	0	0	5	0	0	0	0	1	1	0

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. B  
A.M. Peak Hour

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Scenario Report

Scenario: 2008 Alt 1B AM  
Command: 2008 Alt 1B AM  
Volume: 2008 Alt 1B AM  
Geometry: Alternative B  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Paths  
Routes: Default Routes  
Configuration: 2004/2008

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec):           100                           Critical Vol./Cap.(X):           0.543  
 Loss Time (sec):       8 (Y+R=4.0 sec)   Average Delay (sec/veh):       40.9  
 Optimal Cycle:         80                           Level Of Service:               D

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

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Volume Module:

Base Vol:	69	68	21	145	280	80	12	246	105	497	761	116
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	69	68	21	145	280	80	12	246	105	497	761	116
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	72	71	22	151	292	83	13	257	109	518	794	121
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	71	22	151	292	83	13	257	109	518	794	121
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	72	71	22	151	292	83	13	257	109	518	794	121

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Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3600	1800

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Capacity Analysis Module:

Vol/Sat:	0.04	0.02	0.01	0.09	0.08	0.05	0.01	0.07	0.06	0.30	0.22	0.07
Crit Moves:	****			****			****			****		
Green Time:	10.0	26.0	26.0	10.0	26.0	26.0	15.6	26.0	26.0	30.0	40.4	40.4
Volume/Cap:	0.42	0.08	0.05	0.89	0.31	0.18	0.05	0.27	0.23	1.02	0.55	0.17
Delay/Veh:	44.0	28.0	27.8	83.7	30.0	28.9	36.0	29.6	29.4	79.0	23.2	19.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.0	28.0	27.8	83.7	30.0	28.9	36.0	29.6	29.4	79.0	23.2	19.1
LOS by Move:	D	C	C	F	C	C	D	C	C	E	C	B
HCM2kAvgQ:	3	1	1	8	4	2	0	3	3	24	10	2

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.407  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 26.1  
 Optimal Cycle: 78 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	25	25	10	25	25	10	25	25	10	25	25
Lanes:	1	0	2	0	1	1	2	0	1	0	1	1

Volume Module:

Base Vol:	159	75	281	32	508	338	36	75	56	5	2	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	159	75	281	32	508	338	36	75	56	5	2	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.00	0.87	0.87	0.87
PHF Volume:	183	86	323	37	584	389	41	86	0	6	2	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	183	86	323	37	584	389	41	86	0	6	2	52
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	183	86	323	37	584	389	41	86	0	6	2	52

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	3200	1800	1800	1700	1800	1800

Capacity Analysis Module:

Vol/Sat:	0.11	0.02	0.18	0.02	0.16	0.22	0.01	0.05	0.00	0.00	0.00	0.03
Crit Moves:	****			****			****			****		
Green Time:	19.0	40.7	40.7	16.3	38.0	38.0	10.0	25.0	0.0	10.0	25.0	25.0
Volume/Cap:	0.57	0.06	0.44	0.13	0.43	0.57	0.13	0.19	0.00	0.03	0.01	0.11
Delay/Veh:	39.2	18.0	21.8	36.0	23.1	25.6	41.2	29.7	0.0	40.7	28.2	29.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.2	18.0	21.8	36.0	23.1	25.6	41.2	29.7	0.0	40.7	28.2	29.1
LOS by Move:	D	B	C	D	C	C	D	C	A	D	C	C
HCM2kAvgQ:	6	1	7	1	7	10	1	2	0	0	0	1

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Average Delay (sec/veh): 1.5 Worst Case Level Of Service: B[ 13.1]

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Approach:	North Bound			South Bound			East Bound			West Bound												
Movement:	L	T	R	L	T	R	L	T	R	L	T	R										
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign												
Rights:	Include			Include			Include			Include												
Lanes:	0	0	1	0	1		1	0	1	0	0		0	0	0	0	0	1	0	0	0	1

Volume Module:

Base Vol:	0	429	3	56	516	0	0	0	0	7	0	86
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	429	3	56	516	0	0	0	0	7	0	86
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	480	3	63	577	0	0	0	0	8	0	96
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	480	3	63	577	0	0	0	0	8	0	96

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	483	xxxx	xxxxx	xxxx	xxxx	xxxxx	1182	xxxx	480
Potent Cap.:	xxxx	xxxx	xxxxx	1090	xxxx	xxxxx	xxxx	xxxx	xxxxx	212	xxxx	590
Move Cap.:	xxxx	xxxx	xxxxx	1090	xxxx	xxxxx	xxxx	xxxx	xxxxx	202	xxxx	590
Volume/Cap:	xxxx	xxxx	xxxx	0.06	xxxx	xxxx	xxxx	xxxx	xxxx	0.04	xxxx	0.16

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	0.6
Control Del:	xxxxx	xxxx	xxxxx	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	23.5	xxxx	12.3
LOS by Move:	*	*	*	A	*	*	*	*	*	C	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			13.1		
ApproachLOS:	*			*			*			B		

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #4 Alabama St/Cemex Acc.

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Average Delay (sec/veh): 2.5 Worst Case Level Of Service: B[ 12.0]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	330	7	136	387	0	0	0	0	6	0	102
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	330	7	136	387	0	0	0	0	6	0	102
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	369	8	152	433	0	0	0	0	7	0	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	369	8	152	433	0	0	0	0	7	0	114

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxx	xxxx	xxxxx	377	xxxx	xxxxx	xxxx	xxxx	xxxxx	1106	xxxx	369
Potent Cap.:	xxxx	xxxx	xxxxx	1193	xxxx	xxxxx	xxxx	xxxx	xxxxx	235	xxxx	681
Move Cap.:	xxxx	xxxx	xxxxx	1193	xxxx	xxxxx	xxxx	xxxx	xxxxx	212	xxxx	681
Volume/Cap:	xxxx	xxxx	xxxx	0.13	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	0.17

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	0.6
Control Del:	xxxxx	xxxx	xxxxx	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	22.5	xxxx	11.3
LOS by Move:	*	*	*	A	*	*	*	*	*	C	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			12.0		
ApproachLOS:	*			*			*			B		

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #5 Church St/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.487  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 16.5  
 Optimal Cycle: 61 Level Of Service: B  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	10	28	28	10	17	17	10	17	17
Lanes:	0	0	0	1	0	0	1	0	2	0	0	2

Volume Module:

Base Vol:	0	0	342	144	0	69	11	401	0	0	1303	67
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	342	144	0	69	11	401	0	0	1303	67
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.00	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	0	0	162	0	78	12	452	0	0	1467	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	162	0	78	12	452	0	0	1467	75
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	162	0	78	12	452	0	0	1467	75

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	1.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	1800	1700	0	1800	1700	3600	0	0	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.10	0.00	0.04	0.01	0.13	0.00	0.00	0.41	0.04
Crit Moves:						****	****				****	
Green Time:	0.0	0.0	0.0	28.0	0.0	28.0	10.0	66.0	0.0	0.0	56.0	56.0
Volume/Cap:	0.00	0.00	0.00	0.34	0.00	0.15	0.07	0.19	0.00	0.00	0.73	0.07
Delay/Veh:	0.0	0.0	0.0	29.1	0.0	27.2	41.0	6.6	0.0	0.0	17.7	10.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	29.1	0.0	27.2	41.0	6.6	0.0	0.0	17.7	10.1
LOS by Move:	A	A	A	C	A	C	D	A	A	A	B	B
HCM2kAvgQ:	0	0	0	4	0	2	0	3	0	0	18	1

Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.950  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 33.5  
 Optimal Cycle: 134 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	1	0	2

Volume Module:

Base Vol:	0	0	0	163	0	179	0	319	569	725	1190	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	163	0	179	0	319	569	725	1190	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	173	0	190	0	338	603	769	1262	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	173	0	190	0	338	603	769	1262	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	173	0	190	0	338	603	769	1262	0

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	0.94	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1700	0	1800	0	3600	1800	1700	3600	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.10	0.00	0.11	0.00	0.09	0.34	0.45	0.35	0.00
Crit Moves:						****			****	****		
Green Time:	0.0	0.0	0.0	11.1	0.0	11.1	0.0	35.3	35.3	47.6	82.9	0.0
Volume/Cap:	0.00	0.00	0.00	0.92	0.00	0.95	0.00	0.27	0.95	0.95	0.42	0.00
Delay/Veh:	0.0	0.0	0.0	86.4	0.0	93.5	0.0	23.2	55.5	45.4	2.3	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	86.4	0.0	93.5	0.0	23.2	55.5	45.4	2.3	0.0
LOS by Move:	A	A	A	F	A	F	A	C	E	D	A	A
HCM2kAvgQ:	0	0	0	9	0	10	0	4	23	29	5	0

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.848  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 30.5  
 Optimal Cycle: 71 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18								
Lanes:	0	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	2	0	1

Volume Module:

Base Vol:	612	0	284	0	0	0	69	413	0	0	1303	261
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	612	0	284	0	0	0	69	413	0	0	1303	261
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	639	0	297	0	0	0	72	432	0	0	1362	273
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	639	0	297	0	0	0	72	432	0	0	1362	273
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	639	0	297	0	0	0	72	432	0	0	1362	273

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	0.94	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1700	0	1800	0	0	0	1700	3600	0	0	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.38	0.00	0.16	0.00	0.00	0.00	0.04	0.12	0.00	0.00	0.38	0.15
Crit Moves:	****						****			****		
Green Time:	41.9	0.0	41.9	0.0	0.0	0.0	10.0	52.1	0.0	0.0	42.1	42.1
Volume/Cap:	0.90	0.00	0.39	0.00	0.00	0.00	0.42	0.23	0.00	0.00	0.90	0.36
Delay/Veh:	41.3	0.0	20.6	0.0	0.0	0.0	44.0	13.1	0.0	0.0	34.5	20.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.3	0.0	20.6	0.0	0.0	0.0	44.0	13.1	0.0	0.0	34.5	20.0
LOS by Move:	D	A	C	A	A	A	D	B	A	A	C	C
HCM2kAvgQ:	23	0	6	0	0	0	3	4	0	0	23	6

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.657  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 31.2  
 Optimal Cycle: 84 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	122	106	10	61	181	43	30	383	186	46	1311	116
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	122	106	10	61	181	43	30	383	186	46	1311	116
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	133	116	11	67	197	47	33	418	203	50	1430	126
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	133	116	11	67	197	47	33	418	203	50	1430	126
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	133	116	11	67	197	47	33	418	203	50	1430	126

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	1800	1800	1700	3600	1800	1700	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.08	0.03	0.01	0.04	0.11	0.03	0.02	0.12	0.11	0.03	0.40	0.07
Crit Moves:	****			****			****			****		
Green Time:	10.0	28.0	28.0	10.0	28.0	28.0	10.0	39.8	39.8	14.2	44.0	44.0
Volume/Cap:	0.78	0.11	0.02	0.39	0.39	0.09	0.19	0.29	0.28	0.21	0.90	0.16
Delay/Veh:	64.6	26.8	26.1	43.6	29.6	26.7	41.8	20.6	20.6	38.3	33.6	17.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	64.6	26.8	26.1	43.6	29.6	26.7	41.8	20.6	20.6	38.3	33.6	17.0
LOS by Move:	E	C	C	D	C	C	D	C	C	D	C	B
HCM2kAvgQ:	6	1	0	2	5	1	1	4	4	2	24	2

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.621  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 9.3  
 Optimal Cycle: 29 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	0	411	21	11	752	0	0	88	0	43	70	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	411	21	11	752	0	0	88	0	43	70	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	0	475	24	13	869	0	0	102	0	50	81	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	475	24	13	869	0	0	102	0	50	81	10
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	475	24	13	869	0	0	102	0	50	81	10

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	0.94	1.00	0.94	0.94	1.00	0.94	0.94	1.00	0.94	0.94	1.00
Lanes:	0.00	1.00	1.00	0.01	0.99	0.00	0.00	1.00	1.00	0.38	0.62	1.00
Final Sat.:	0	1700	1800	25	1675	0	0	1700	1800	647	1053	1800

Capacity Analysis Module:

Vol/Sat:	0.00	0.28	0.01	0.52	0.52	0.00	0.00	0.06	0.00	0.08	0.08	0.01
Crit Moves:	****						****					
Green Time:	0.0	83.6	83.6	83.6	83.6	0.0	0.0	12.4	0.0	12.4	12.4	12.4
Volume/Cap:	0.00	0.33	0.02	0.62	0.62	0.00	0.00	0.48	0.00	0.62	0.62	0.05
Delay/Veh:	0.0	2.0	1.4	3.6	3.6	0.0	0.0	42.6	0.0	47.2	47.2	38.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	2.0	1.4	3.6	3.6	0.0	0.0	42.6	0.0	47.2	47.2	38.7
LOS by Move:	A	A	A	A	A	A	A	D	A	D	D	D
HCM2kAvgQ:	0	4	0	10	10	0	0	4	0	5	5	0

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. B  
P.M. Peak Hour  
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Scenario Report

Scenario: 2008 Alt 1B PM  
Command: 2008 Alt 1B PM  
Volume: 2008 Alt 1B PM  
Geometry: Alternative B  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Paths  
Routes: Default Routes  
Configuration: 2004/2008

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.503  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 28.9  
 Optimal Cycle: 80 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	45	449	80	88	138	37	58	484	69	199	395	163
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	449	80	88	138	37	58	484	69	199	395	163
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	49	485	86	95	149	40	63	523	75	215	427	176
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	485	86	95	149	40	63	523	75	215	427	176
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	49	485	86	95	149	40	63	523	75	215	427	176

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.03	0.13	0.05	0.06	0.04	0.02	0.04	0.15	0.04	0.13	0.12	0.10
Crit Moves:	****			****			****			****		
Green Time:	10.5	26.8	26.8	11.1	27.4	27.4	15.0	28.9	28.9	25.2	39.0	39.0
Volume/Cap:	0.27	0.50	0.18	0.50	0.15	0.08	0.25	0.50	0.14	0.50	0.30	0.25
Delay/Veh:	42.0	31.4	28.3	44.0	27.6	27.0	38.0	30.0	26.5	33.0	21.2	20.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.0	31.4	28.3	44.0	27.6	27.0	38.0	30.0	26.5	33.0	21.2	20.8
LOS by Move:	D	C	C	D	C	C	D	C	C	C	C	C
HCM2kAvgQ:	2	7	2	4	2	1	2	7	2	6	5	4

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.531  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 29.6  
 Optimal Cycle: 78 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	25	25	10	25	25	10	25	25	10	25	25
Lanes:	1	0	2	0	1	0	1	0	1	0	1	0

Volume Module:

Base Vol:	70	298	447	1	311	94	255	338	161	4	2	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	70	298	447	1	311	94	255	338	161	4	2	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.00	0.90	0.90	0.90
PHF Volume:	78	331	497	1	346	105	284	376	0	4	2	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	331	497	1	346	105	284	376	0	4	2	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	78	331	497	1	346	105	284	376	0	4	2	24

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	3200	1800	1800	1700	1800	1800

Capacity Analysis Module:

Vol/Sat:	0.05	0.09	0.28	0.00	0.10	0.06	0.09	0.21	0.00	0.00	0.00	0.01
Crit Moves:	****			****			****			****		
Green Time:	14.6	41.0	41.0	10.0	36.4	36.4	11.7	31.0	0.0	10.0	29.3	29.3
Volume/Cap:	0.31	0.22	0.67	0.01	0.26	0.16	0.76	0.67	0.00	0.03	0.00	0.05
Delay/Veh:	39.0	19.2	26.5	40.5	22.5	21.6	51.3	33.3	0.0	40.7	25.0	25.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.0	19.2	26.5	40.5	22.5	21.6	51.3	33.3	0.0	40.7	25.0	25.4
LOS by Move:	D	B	C	D	C	C	D	C	A	D	C	C
HCM2kAvgQ:	2	3	13	0	4	2	7	11	0	0	0	1

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Average Delay (sec/veh): 0.9 Worst Case Level Of Service: C[ 17.8]

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Approach:	North Bound			South Bound			East Bound			West Bound												
Movement:	L	T	R	L	T	R	L	T	R	L	T	R										
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign												
Rights:	Include			Include			Include			Include												
Lanes:	0	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	783	0	52	425	0	0	0	0	3	0	34
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	783	0	52	425	0	0	0	0	3	0	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	878	0	58	476	0	0	0	0	3	0	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	878	0	58	476	0	0	0	0	3	0	38

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxx	xxxx	xxxxx	878	xxxx	xxxxx	xxxx	xxxx	xxxxx	1471	xxxx	878
Potent Cap.:	xxxx	xxxx	xxxxx	778	xxxx	xxxxx	xxxx	xxxx	xxxxx	141	xxxx	350
Move Cap.:	xxxx	xxxx	xxxxx	778	xxxx	xxxxx	xxxx	xxxx	xxxxx	133	xxxx	350
Volume/Cap:	xxxx	xxxx	xxxx	0.07	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	0.11

Level of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	0.4
Control Del:	xxxxx	xxxx	xxxxx	10.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	32.7	xxxx	16.5
LOS by Move:	*	*	*	B	*	*	*	*	*	D	*	C
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			17.8		
ApproachLOS:	*			*			*			C		

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #4 Alabama St/Cemex Acc.

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Average Delay (sec/veh): 1.0 Worst Case Level Of Service: C[ 17.5]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	738	1	28	400	0	0	0	0	6	0	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	738	1	28	400	0	0	0	0	6	0	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	827	1	31	448	0	0	0	0	7	0	50
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	827	1	31	448	0	0	0	0	7	0	50

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxx	xxxx	xxxxx	828	xxxx	xxxxx	xxxx	xxxx	xxxxx	1339	xxxx	827
Potent Cap.:	xxxx	xxxx	xxxxx	812	xxxx	xxxxx	xxxx	xxxx	xxxxx	170	xxxx	374
Move Cap.:	xxxx	xxxx	xxxxx	812	xxxx	xxxxx	xxxx	xxxx	xxxxx	165	xxxx	374
Volume/Cap:	xxxx	xxxx	xxxx	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	0.04	xxxx	0.13

Level of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	0.5
Control Del:	xxxxx	xxxx	xxxxx	9.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	27.7	xxxx	16.1
LOS by Move:	*	*	*	A	*	*	*	*	*	D	*	C
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			17.5		
ApproachLOS:	*			*			*			C		

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

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Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #5 Church St/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.298  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 12.7  
 Optimal Cycle: 61 Level Of Service: B  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	10	28	28	10	17	17	10	17	17
Lanes:	0	0	0	1	0	0	1	0	2	0	0	2

Volume Module:

Base Vol:	0	0	780	77	0	26	64	589	0	0	731	139
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	780	77	0	26	64	589	0	0	731	139
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.00	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	0	0	0	85	0	29	70	647	0	0	802	153
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	85	0	29	70	647	0	0	802	153
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	85	0	29	70	647	0	0	802	153

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	1.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	1800	1700	0	1800	1700	3600	0	0	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.05	0.00	0.02	0.04	0.18	0.00	0.00	0.22	0.08
Crit Moves:						****	****			****		
Green Time:	0.0	0.0	0.0	28.0	0.0	28.0	10.3	66.0	0.0	0.0	55.7	55.7
Volume/Cap:	0.00	0.00	0.00	0.18	0.00	0.06	0.40	0.27	0.00	0.00	0.40	0.15
Delay/Veh:	0.0	0.0	0.0	27.5	0.0	26.4	43.4	7.1	0.0	0.0	12.8	10.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	27.5	0.0	26.4	43.4	7.1	0.0	0.0	12.8	10.8
LOS by Move:	A	A	A	C	A	C	D	A	A	A	B	B
HCM2kAvgQ:	0	0	0	2	0	1	3	4	0	0	7	2

Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.719  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 23.6  
 Optimal Cycle: 44 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	1	0	2

Volume Module:

Base Vol:	0	0	0	254	0	101	0	990	457	357	763	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	254	0	101	0	990	457	357	763	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	271	0	108	0	1054	487	380	813	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	271	0	108	0	1054	487	380	813	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	271	0	108	0	1054	487	380	813	0

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	0.94	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1700	0	1800	0	3600	1800	1700	3600	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.06	0.00	0.29	0.27	0.22	0.23	0.00
Crit Moves:				****			****			****		
Green Time:	0.0	0.0	0.0	22.1	0.0	22.1	0.0	40.7	40.7	31.1	71.9	0.0
Volume/Cap:	0.00	0.00	0.00	0.72	0.00	0.27	0.00	0.72	0.66	0.72	0.31	0.00
Delay/Veh:	0.0	0.0	0.0	42.6	0.0	32.6	0.0	26.6	26.4	35.3	5.2	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	42.6	0.0	32.6	0.0	26.6	26.4	35.3	5.2	0.0
LOS by Move:	A	A	A	D	A	C	A	C	C	D	A	A
HCM2kAvgQ:	0	0	0	10	0	3	0	15	13	12	5	0

Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.699  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 25.3  
 Optimal Cycle: 44 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18								
Lanes:	0	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	2	0	1

Volume Module:

Base Vol:	469	0	569	0	0	0	146	1098	0	0	651	120
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	469	0	569	0	0	0	146	1098	0	0	651	120
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	496	0	602	0	0	0	154	1162	0	0	689	127
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	496	0	602	0	0	0	154	1162	0	0	689	127
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	496	0	602	0	0	0	154	1162	0	0	689	127

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	0.94	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1700	0	1800	0	0	0	1700	3600	0	0	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.29	0.00	0.33	0.00	0.00	0.00	0.09	0.32	0.00	0.00	0.19	0.07
Crit Moves:	****						****			****		
Green Time:	47.8	0.0	47.8	0.0	0.0	0.0	15.8	46.2	0.0	0.0	30.3	30.3
Volume/Cap:	0.61	0.00	0.70	0.00	0.00	0.00	0.57	0.70	0.00	0.00	0.63	0.23
Delay/Veh:	20.6	0.0	23.0	0.0	0.0	0.0	41.9	22.7	0.0	0.0	31.2	26.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.6	0.0	23.0	0.0	0.0	0.0	41.9	22.7	0.0	0.0	31.2	26.3
LOS by Move:	C	A	C	A	A	A	D	C	A	A	C	C
HCM2kAvgQ:	12	0	15	0	0	0	5	15	0	0	10	3

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.572  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 29.9  
 Optimal Cycle: 84 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	177	355	41	139	169	37	41	1032	302	30	536	98
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	177	355	41	139	169	37	41	1032	302	30	536	98
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	186	372	43	146	177	39	43	1082	317	31	562	103
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	186	372	43	146	177	39	43	1082	317	31	562	103
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	186	372	43	146	177	39	43	1082	317	31	562	103

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	1800	1800	1700	3600	1800	1700	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.11	0.10	0.02	0.09	0.10	0.02	0.03	0.30	0.18	0.02	0.16	0.06
Crit Moves:	****			****			****			****		
Green Time:	14.4	31.2	31.2	11.2	28.0	28.0	13.1	39.6	39.6	10.0	36.6	36.6
Volume/Cap:	0.76	0.33	0.08	0.77	0.35	0.08	0.19	0.76	0.44	0.18	0.43	0.16
Delay/Veh:	54.0	26.5	24.3	60.4	29.2	26.6	39.2	28.5	22.6	41.8	24.1	21.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.0	26.5	24.3	60.4	29.2	26.6	39.2	28.5	22.6	41.8	24.1	21.5
LOS by Move:	D	C	C	E	C	C	D	C	C	D	C	C
HCM2kAvgQ:	8	4	1	7	4	1	1	16	7	1	7	2

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.722  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 5.2  
 Optimal Cycle: 38 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	0	1	0	1	0

Volume Module:

Base Vol:	1	1050	9	0	618	0	0	11	1	8	15	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	1050	9	0	618	0	0	11	1	8	15	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	1	1151	10	0	678	0	0	12	1	9	16	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	1151	10	0	678	0	0	12	1	9	16	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	1	1151	10	0	678	0	0	12	1	9	16	1

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	0.94	1.00	0.94	1.00	1.00	0.94	0.94	1.00	0.94	0.94	1.00
Lanes:	0.01	0.99	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.35	0.65	1.00
Final Sat.:	2	1698	1800	0	1800	0	0	1700	1800	591	1109	1800

Capacity Analysis Module:

Vol/Sat:	0.68	0.68	0.01	0.00	0.38	0.00	0.00	0.01	0.00	0.01	0.01	0.00
Crit Moves:	****									****		
Green Time:	86.0	86.0	86.0	0.0	86.0	0.0	0.0	10.0	10.0	10.0	10.0	10.0
Volume/Cap:	0.79	0.79	0.01	0.00	0.44	0.00	0.00	0.07	0.01	0.15	0.15	0.01
Delay/Veh:	6.0	6.0	1.0	0.0	1.8	0.0	0.0	41.0	40.5	41.5	41.5	40.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	6.0	6.0	1.0	0.0	1.8	0.0	0.0	41.0	40.5	41.5	41.5	40.5
LOS by Move:	A	A	A	A	A	A	A	D	D	D	D	D
HCM2kAvgQ:	18	18	0	0	5	0	0	0	0	1	1	0

Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. D  
A.M. Peak Hour

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Scenario Report

Scenario: 2008 Alt 1D AM  
Command: 2008 Alt 1D AM  
Volume: 2008 Alt 1D AM  
Geometry: Alternative D  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Paths  
Routes: Default Routes  
Configuration: 2004/2008

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.485  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 33.4  
 Optimal Cycle: 80 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	69	68	21	145	280	80	12	246	105	410	761	116
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	69	68	21	145	280	80	12	246	105	410	761	116
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	72	71	22	151	292	83	13	257	109	428	794	121
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	71	22	151	292	83	13	257	109	428	794	121
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	72	71	22	151	292	83	13	257	109	428	794	121

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.04	0.02	0.01	0.09	0.08	0.05	0.01	0.07	0.06	0.25	0.22	0.07
Crit Moves:	****			****			****			****		
Green Time:	10.0	26.0	26.0	10.0	26.0	26.0	15.6	26.0	26.0	30.0	40.4	40.4
Volume/Cap:	0.42	0.08	0.05	0.89	0.31	0.18	0.05	0.27	0.23	0.84	0.55	0.17
Delay/Veh:	44.0	28.0	27.8	83.7	30.0	28.9	36.0	29.6	29.4	44.4	23.2	19.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.0	28.0	27.8	83.7	30.0	28.9	36.0	29.6	29.4	44.4	23.2	19.1
LOS by Move:	D	C	C	F	C	C	D	C	C	D	C	B
HCM2kAvgQ:	3	1	1	8	4	2	0	3	3	16	10	2

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.407  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 26.0  
 Optimal Cycle: 78 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	25	25	10	25	25	10	25	25	10	25	25
Lanes:	1	0	2	0	1	0	1	0	1	0	1	0

Volume Module:

Base Vol:	159	75	211	32	421	338	36	75	56	5	2	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	159	75	211	32	421	338	36	75	56	5	2	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.00	0.87	0.87	0.87
PHF Volume:	183	86	243	37	484	389	41	86	0	6	2	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	183	86	243	37	484	389	41	86	0	6	2	52
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	183	86	243	37	484	389	41	86	0	6	2	52

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	3200	1800	1800	1700	1800	1800

Capacity Analysis Module:

Vol/Sat:	0.11	0.02	0.13	0.02	0.13	0.22	0.01	0.05	0.00	0.00	0.00	0.03
Crit Moves:	****			****			****			****		
Green Time:	19.0	40.7	40.7	16.3	38.0	38.0	10.0	25.0	0.0	10.0	25.0	25.0
Volume/Cap:	0.57	0.06	0.33	0.13	0.35	0.57	0.13	0.19	0.00	0.03	0.01	0.11
Delay/Veh:	39.2	18.0	20.6	36.0	22.3	25.6	41.2	29.7	0.0	40.7	28.2	29.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.2	18.0	20.6	36.0	22.3	25.6	41.2	29.7	0.0	40.7	28.2	29.1
LOS by Move:	D	B	C	D	C	C	D	C	A	D	C	C
HCM2kAvgQ:	6	1	5	1	5	10	1	2	0	0	0	1

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Average Delay (sec/veh): 0.9 Worst Case Level Of Service: B[ 12.4]

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Approach:	North Bound			South Bound			East Bound			West Bound												
Movement:	L	T	R	L	T	R	L	T	R	L	T	R										
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign												
Rights:	Include			Include			Include			Include												
Lanes:	0	0	1	0	1		1	0	1	0	0		0	0	0	0	0	1	0	0	0	1

Volume Module:

Base Vol:	0	398	3	26	459	0	0	0	0	7	0	47
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	398	3	26	459	0	0	0	0	7	0	47
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	445	3	29	513	0	0	0	0	8	0	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	445	3	29	513	0	0	0	0	8	0	53

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	449	xxxx	xxxxx	xxxx	xxxx	xxxxx	1017	xxxx	445
Potent Cap.:	xxxx	xxxx	xxxxx	1123	xxxx	xxxxx	xxxx	xxxx	xxxxx	266	xxxx	617
Move Cap.:	xxxx	xxxx	xxxxx	1123	xxxx	xxxxx	xxxx	xxxx	xxxxx	260	xxxx	617
Volume/Cap:	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	0.09

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	0.3
Control Del:	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	19.3	xxxx	11.4
LOS by Move:	*	*	*	A	*	*	*	*	*	C	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			12.4		
ApproachLOS:	*			*			*			B		

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #4 Alabama St/Cemex Acc.

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Average Delay (sec/veh): 1.8 Worst Case Level Of Service: B[ 11.6]

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Approach:	North Bound			South Bound			East Bound			West Bound												
Movement:	L	T	R	L	T	R	L	T	R	L	T	R										
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign												
Rights:	Include			Include			Include			Include												
Lanes:	0	0	1	0	1		1	0	1	0	0		0	0	0	0	0	1	0	0	0	1

Volume Module:

Base Vol:	0	330	7	79	387	0	0	0	0	6	0	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	330	7	79	387	0	0	0	0	6	0	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	369	8	88	433	0	0	0	0	7	0	79
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	369	8	88	433	0	0	0	0	7	0	79

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	377	xxxx	xxxxx	xxxx	xxxx	xxxxx	979	xxxx	369
Potent Cap.:	xxxx	xxxx	xxxxx	1193	xxxx	xxxxx	xxxx	xxxx	xxxxx	280	xxxx	681
Move Cap.:	xxxx	xxxx	xxxxx	1193	xxxx	xxxxx	xxxx	xxxx	xxxxx	264	xxxx	681
Volume/Cap:	xxxx	xxxx	xxxx	0.07	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	0.12

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	0.4
Control Del:	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	19.0	xxxx	11.0
LOS by Move:	*	*	*	A	*	*	*	*	*	C	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			11.6		
ApproachLOS:	*			*			*			B		

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #5 Church St/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.458  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 15.7  
 Optimal Cycle: 61 Level Of Service: B  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	17	17	10	17	17
Lanes:	0	0	1	1	0	1	1	0	0	0	2	1

Volume Module:

Base Vol:	0	0	272	144	0	69	11	401	0	0	1216	67
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	272	144	0	69	11	401	0	0	1216	67
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.00	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	0	0	162	0	78	12	452	0	0	1369	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	162	0	78	12	452	0	0	1369	75
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	162	0	78	12	452	0	0	1369	75

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	1.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	1800	1700	0	1800	1700	3600	0	0	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.10	0.00	0.04	0.01	0.13	0.00	0.00	0.38	0.04
Crit Moves:						****	****				****	
Green Time:	0.0	0.0	0.0	28.0	0.0	28.0	10.0	66.0	0.0	0.0	56.0	56.0
Volume/Cap:	0.00	0.00	0.00	0.34	0.00	0.15	0.07	0.19	0.00	0.00	0.68	0.07
Delay/Veh:	0.0	0.0	0.0	29.1	0.0	27.2	41.0	6.6	0.0	0.0	16.6	10.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	29.1	0.0	27.2	41.0	6.6	0.0	0.0	16.6	10.1
LOS by Move:	A	A	A	C	A	C	D	A	A	A	B	B
HCM2kAvgQ:	0	0	0	4	0	2	0	3	0	0	16	1

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #6 Truck Access Road/5th St

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Average Delay (sec/veh): 0.0 Worst Case Level Of Service: A[ 0.0]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Ignore			Include			Include			Include		
Lanes:	0	0	1	0	0	0	0	2	0	0	2	1

Volume Module:

Base Vol:	0	0	70	0	0	0	0	818	0	0	1283	87
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	70	0	0	0	0	818	0	0	1283	87
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.00	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	0	0	0	0	910	0	0	1427	97
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	0	0	0	0	910	0	0	1427	97

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx

Level of Service Module:

2Way95thQ:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.950  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 33.5  
 Optimal Cycle: 134 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	1	0	2

Volume Module:

Base Vol:	0	0	0	163	0	179	0	319	569	725	1190	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	163	0	179	0	319	569	725	1190	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	173	0	190	0	338	603	769	1262	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	173	0	190	0	338	603	769	1262	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	173	0	190	0	338	603	769	1262	0

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	0.94	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1700	0	1800	0	3600	1800	1700	3600	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.10	0.00	0.11	0.00	0.09	0.34	0.45	0.35	0.00
Crit Moves:						****			****	****		
Green Time:	0.0	0.0	0.0	11.1	0.0	11.1	0.0	35.3	35.3	47.6	82.9	0.0
Volume/Cap:	0.00	0.00	0.00	0.92	0.00	0.95	0.00	0.27	0.95	0.95	0.42	0.00
Delay/Veh:	0.0	0.0	0.0	86.4	0.0	93.5	0.0	23.2	55.5	45.4	2.3	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	86.4	0.0	93.5	0.0	23.2	55.5	45.4	2.3	0.0
LOS by Move:	A	A	A	F	A	F	A	C	E	D	A	A
HCM2kAvgQ:	0	0	0	9	0	10	0	4	23	29	5	0

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.848  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 30.5  
 Optimal Cycle: 71 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18								
Lanes:	0	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	2	0	1

Volume Module:

Base Vol:	612	0	284	0	0	0	69	413	0	0	1303	261
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	612	0	284	0	0	0	69	413	0	0	1303	261
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	639	0	297	0	0	0	72	432	0	0	1362	273
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	639	0	297	0	0	0	72	432	0	0	1362	273
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	639	0	297	0	0	0	72	432	0	0	1362	273

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	0.94	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1700	0	1800	0	0	0	1700	3600	0	0	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.38	0.00	0.16	0.00	0.00	0.00	0.04	0.12	0.00	0.00	0.38	0.15
Crit Moves:	****						****			****		
Green Time:	41.9	0.0	41.9	0.0	0.0	0.0	10.0	52.1	0.0	0.0	42.1	42.1
Volume/Cap:	0.90	0.00	0.39	0.00	0.00	0.00	0.42	0.23	0.00	0.00	0.90	0.36
Delay/Veh:	41.3	0.0	20.6	0.0	0.0	0.0	44.0	13.1	0.0	0.0	34.5	20.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.3	0.0	20.6	0.0	0.0	0.0	44.0	13.1	0.0	0.0	34.5	20.0
LOS by Move:	D	A	C	A	A	A	D	B	A	A	C	C
HCM2kAvgQ:	23	0	6	0	0	0	3	4	0	0	23	6

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.657  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 31.2  
 Optimal Cycle: 84 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	122	106	10	61	181	43	30	383	186	46	1311	116
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	122	106	10	61	181	43	30	383	186	46	1311	116
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	133	116	11	67	197	47	33	418	203	50	1430	126
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	133	116	11	67	197	47	33	418	203	50	1430	126
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	133	116	11	67	197	47	33	418	203	50	1430	126

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	1800	1800	1700	3600	1800	1700	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.08	0.03	0.01	0.04	0.11	0.03	0.02	0.12	0.11	0.03	0.40	0.07
Crit Moves:	****			****			****			****		
Green Time:	10.0	28.0	28.0	10.0	28.0	28.0	10.0	39.8	39.8	14.2	44.0	44.0
Volume/Cap:	0.78	0.11	0.02	0.39	0.39	0.09	0.19	0.29	0.28	0.21	0.90	0.16
Delay/Veh:	64.6	26.8	26.1	43.6	29.6	26.7	41.8	20.6	20.6	38.3	33.6	17.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	64.6	26.8	26.1	43.6	29.6	26.7	41.8	20.6	20.6	38.3	33.6	17.0
LOS by Move:	E	C	C	D	C	C	D	C	C	D	C	B
HCM2kAvgQ:	6	1	0	2	5	1	1	4	4	2	24	2

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.621  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 9.3  
 Optimal Cycle: 29 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	0	411	21	11	752	0	0	88	0	43	70	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	411	21	11	752	0	0	88	0	43	70	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	0	475	24	13	869	0	0	102	0	50	81	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	475	24	13	869	0	0	102	0	50	81	10
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	475	24	13	869	0	0	102	0	50	81	10

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	0.94	1.00	0.94	0.94	1.00	0.94	0.94	1.00	0.94	0.94	1.00
Lanes:	0.00	1.00	1.00	0.01	0.99	0.00	0.00	1.00	1.00	0.38	0.62	1.00
Final Sat.:	0	1700	1800	25	1675	0	0	1700	1800	647	1053	1800

Capacity Analysis Module:

Vol/Sat:	0.00	0.28	0.01	0.52	0.52	0.00	0.00	0.06	0.00	0.08	0.08	0.01
Crit Moves:	****						****					
Green Time:	0.0	83.6	83.6	83.6	83.6	0.0	0.0	12.4	0.0	12.4	12.4	12.4
Volume/Cap:	0.00	0.33	0.02	0.62	0.62	0.00	0.00	0.48	0.00	0.62	0.62	0.05
Delay/Veh:	0.0	2.0	1.4	3.6	3.6	0.0	0.0	42.6	0.0	47.2	47.2	38.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	2.0	1.4	3.6	3.6	0.0	0.0	42.6	0.0	47.2	47.2	38.7
LOS by Move:	A	A	A	A	A	A	A	D	A	D	D	D
HCM2kAvgQ:	0	4	0	10	10	0	0	4	0	5	5	0

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. D  
P.M. Peak Hour

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Scenario Report

Scenario: 2008 Alt 1D PM  
Command: 2008 Alt 1D PM  
Volume: 2008 Alt 1D PM  
Geometry: Alternative D  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Paths  
Routes: Default Routes  
Configuration: 2004/2008

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.466  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 28.3  
 Optimal Cycle: 80 Level Of Service: C

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

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Volume Module:

Base Vol:	45	449	80	88	138	37	58	484	69	146	395	163
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	449	80	88	138	37	58	484	69	146	395	163
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	49	485	86	95	149	40	63	523	75	158	427	176
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	485	86	95	149	40	63	523	75	158	427	176
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	49	485	86	95	149	40	63	523	75	158	427	176

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Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3600	1800

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Capacity Analysis Module:

Vol/Sat:	0.03	0.13	0.05	0.06	0.04	0.02	0.04	0.15	0.04	0.09	0.12	0.10
Crit Moves:	****			****			****			****		
Green Time:	11.4	28.9	28.9	12.0	29.6	29.6	14.2	31.2	31.2	19.9	36.9	36.9
Volume/Cap:	0.25	0.47	0.17	0.47	0.14	0.08	0.26	0.47	0.13	0.47	0.32	0.27
Delay/Veh:	41.1	29.5	26.7	42.7	25.9	25.4	38.8	28.0	24.8	36.4	22.7	22.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.1	29.5	26.7	42.7	25.9	25.4	38.8	28.0	24.8	36.4	22.7	22.3
LOS by Move:	D	C	C	D	C	C	D	C	C	D	C	C
HCM2kAvgQ:	2	6	2	3	2	1	2	7	2	5	5	4

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.517  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 29.6  
 Optimal Cycle: 78 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	25	25	10	25	25	10	25	25	10	25	25
Lanes:	1	0	2	0	1	1	2	0	1	0	1	1

Volume Module:

Base Vol:	70	298	427	1	258	94	255	338	161	4	2	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	70	298	427	1	258	94	255	338	161	4	2	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.00	0.90	0.90	0.90
PHF Volume:	78	331	475	1	287	105	284	376	0	4	2	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	331	475	1	287	105	284	376	0	4	2	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	78	331	475	1	287	105	284	376	0	4	2	24

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	3200	1800	1800	1700	1800	1800

Capacity Analysis Module:

Vol/Sat:	0.05	0.09	0.26	0.00	0.08	0.06	0.09	0.21	0.00	0.00	0.00	0.01
Crit Moves:			****	****				****		****		
Green Time:	14.3	40.2	40.2	10.0	35.8	35.8	11.9	31.8	0.0	10.0	29.9	29.9
Volume/Cap:	0.32	0.23	0.66	0.01	0.22	0.16	0.74	0.66	0.00	0.03	0.00	0.05
Delay/Veh:	39.2	19.8	26.5	40.5	22.4	22.0	50.1	32.2	0.0	40.7	24.6	25.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.2	19.8	26.5	40.5	22.4	22.0	50.1	32.2	0.0	40.7	24.6	25.0
LOS by Move:	D	B	C	D	C	C	D	C	A	D	C	C
HCM2kAvgQ:	3	3	13	0	3	2	6	11	0	0	0	1

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Average Delay (sec/veh): 0.4 Worst Case Level Of Service: C[ 17.2]

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	772	0	7	417	0	0	0	0	3	0	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	772	0	7	417	0	0	0	0	3	0	25
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	865	0	8	467	0	0	0	0	3	0	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	865	0	8	467	0	0	0	0	3	0	28

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxx	xxxx	xxxxx	865	xxxx	xxxxx	xxxx	xxxx	xxxxx	1349	xxxx	865
Potent Cap.:	xxxx	xxxx	xxxxx	786	xxxx	xxxxx	xxxx	xxxx	xxxxx	168	xxxx	356
Move Cap.:	xxxx	xxxx	xxxxx	786	xxxx	xxxxx	xxxx	xxxx	xxxxx	167	xxxx	356
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.02	xxxx	0.08

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	0.3
Control Del:	xxxxx	xxxx	xxxxx	9.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	27.1	xxxx	16.0
LOS by Move:	*	*	*	A	*	*	*	*	*	D	*	C
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			17.2		
ApproachLOS:	*			*			*			C		

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #4 Alabama St/Cemex Acc.

\*\*\*\*\*

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: C[ 17.4]

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	738	1	20	400	0	0	0	0	6	0	34
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	738	1	20	400	0	0	0	0	6	0	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	827	1	22	448	0	0	0	0	7	0	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	827	1	22	448	0	0	0	0	7	0	38

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxx	xxxx	xxxxx	828	xxxx	xxxxx	xxxx	xxxx	xxxxx	1321	xxxx	827
Potent Cap.:	xxxx	xxxx	xxxxx	812	xxxx	xxxxx	xxxx	xxxx	xxxxx	175	xxxx	374
Move Cap.:	xxxx	xxxx	xxxxx	812	xxxx	xxxxx	xxxx	xxxx	xxxxx	171	xxxx	374
Volume/Cap:	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.04	xxxx	0.10

Level of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	0.3
Control Del:	xxxxx	xxxx	xxxxx	9.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	26.9	xxxx	15.7
LOS by Move:	*	*	*	A	*	*	*	*	*	D	*	C
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			17.4		
ApproachLOS:	*			*			*			C		

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #5 Church St/5th St

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.281  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 12.7  
 Optimal Cycle: 61 Level Of Service: B  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	17	17	10	17	17
Lanes:	0	0	1	1	0	0	1	0	0	0	0	1

Volume Module:

Base Vol:	0	0	760	77	0	26	64	589	0	0	678	139
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	760	77	0	26	64	589	0	0	678	139
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.00	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	0	0	0	85	0	29	70	647	0	0	744	153
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	85	0	29	70	647	0	0	744	153
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	85	0	29	70	647	0	0	744	153

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	1.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	1800	1700	0	1800	1700	3600	0	0	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.05	0.00	0.02	0.04	0.18	0.00	0.00	0.21	0.08
Crit Moves:						****	****			****		
Green Time:	0.0	0.0	0.0	28.0	0.0	28.0	11.0	66.0	0.0	0.0	55.0	55.0
Volume/Cap:	0.00	0.00	0.00	0.18	0.00	0.06	0.38	0.27	0.00	0.00	0.38	0.15
Delay/Veh:	0.0	0.0	0.0	27.5	0.0	26.4	42.6	7.1	0.0	0.0	12.9	11.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	27.5	0.0	26.4	42.6	7.1	0.0	0.0	12.9	11.1
LOS by Move:	A	A	A	C	A	C	D	A	A	A	B	B
HCM2kAvgQ:	0	0	0	2	0	1	2	4	0	0	6	2

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #6 Truck Access Road/5th St

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Average Delay (sec/veh): 0.0 Worst Case Level Of Service: A[ 0.0]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Ignore			Include			Include			Include		
Lanes:	0	0	1	0	0	0	0	2	0	0	2	1

Volume Module:

Base Vol:	0	0	20	0	0	0	0	1428	0	0	816	53
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	20	0	0	0	0	1428	0	0	816	53
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.00	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	0	0	0	0	0	0	0	1562	0	0	893	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	0	0	0	0	1562	0	0	893	58

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.719  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 23.6  
 Optimal Cycle: 44 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	1	0	2

Volume Module:

Base Vol:	0	0	0	254	0	101	0	990	457	357	763	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	254	0	101	0	990	457	357	763	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	271	0	108	0	1054	487	380	813	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	271	0	108	0	1054	487	380	813	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	271	0	108	0	1054	487	380	813	0

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	0.94	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1700	0	1800	0	3600	1800	1700	3600	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.06	0.00	0.29	0.27	0.22	0.23	0.00
Crit Moves:				****			****			****		
Green Time:	0.0	0.0	0.0	22.1	0.0	22.1	0.0	40.7	40.7	31.1	71.9	0.0
Volume/Cap:	0.00	0.00	0.00	0.72	0.00	0.27	0.00	0.72	0.66	0.72	0.31	0.00
Delay/Veh:	0.0	0.0	0.0	42.6	0.0	32.6	0.0	26.6	26.4	35.3	5.2	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	42.6	0.0	32.6	0.0	26.6	26.4	35.3	5.2	0.0
LOS by Move:	A	A	A	D	A	C	A	C	C	D	A	A
HCM2kAvgQ:	0	0	0	10	0	3	0	15	13	12	5	0

Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.699  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 25.3  
 Optimal Cycle: 44 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18								
Lanes:	0	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	2	0	1

Volume Module:

Base Vol:	469	0	569	0	0	0	147	1097	0	0	651	120
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	469	0	569	0	0	0	147	1097	0	0	651	120
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	496	0	602	0	0	0	156	1161	0	0	689	127
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	496	0	602	0	0	0	156	1161	0	0	689	127
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	496	0	602	0	0	0	156	1161	0	0	689	127

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	0.94	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1700	0	1800	0	0	0	1700	3600	0	0	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.29	0.00	0.33	0.00	0.00	0.00	0.09	0.32	0.00	0.00	0.19	0.07
Crit Moves:	****						****			****		
Green Time:	47.9	0.0	47.9	0.0	0.0	0.0	15.8	46.1	0.0	0.0	30.3	30.3
Volume/Cap:	0.61	0.00	0.70	0.00	0.00	0.00	0.58	0.70	0.00	0.00	0.63	0.23
Delay/Veh:	20.6	0.0	23.0	0.0	0.0	0.0	42.1	22.7	0.0	0.0	31.2	26.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.6	0.0	23.0	0.0	0.0	0.0	42.1	22.7	0.0	0.0	31.2	26.4
LOS by Move:	C	A	C	A	A	A	D	C	A	A	C	C
HCM2kAvgQ:	12	0	15	0	0	0	6	15	0	0	10	3

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.572  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 29.9  
 Optimal Cycle: 84 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	177	355	41	139	169	37	41	1031	302	30	536	98
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	177	355	41	139	169	37	41	1031	302	30	536	98
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	186	372	43	146	177	39	43	1081	317	31	562	103
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	186	372	43	146	177	39	43	1081	317	31	562	103
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	186	372	43	146	177	39	43	1081	317	31	562	103

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	1800	1800	1700	3600	1800	1700	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.11	0.10	0.02	0.09	0.10	0.02	0.03	0.30	0.18	0.02	0.16	0.06
Crit Moves:	****			****			****			****		
Green Time:	14.4	31.2	31.2	11.2	28.0	28.0	13.1	39.6	39.6	10.0	36.5	36.5
Volume/Cap:	0.76	0.33	0.08	0.77	0.35	0.08	0.19	0.76	0.44	0.18	0.43	0.16
Delay/Veh:	53.9	26.5	24.3	60.3	29.2	26.6	39.2	28.5	22.6	41.8	24.1	21.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.9	26.5	24.3	60.3	29.2	26.6	39.2	28.5	22.6	41.8	24.1	21.5
LOS by Move:	D	C	C	E	C	C	D	C	C	D	C	C
HCM2kAvgQ:	8	4	1	7	4	1	1	16	7	1	7	2

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.722  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 5.2  
 Optimal Cycle: 38 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	0	1	0	1	0

Volume Module:

Base Vol:	1	1050	9	0	618	0	0	11	1	8	15	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	1050	9	0	618	0	0	11	1	8	15	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	1	1151	10	0	678	0	0	12	1	9	16	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	1151	10	0	678	0	0	12	1	9	16	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	1	1151	10	0	678	0	0	12	1	9	16	1

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	0.94	1.00	0.94	1.00	1.00	0.94	0.94	1.00	0.94	0.94	1.00
Lanes:	0.01	0.99	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.35	0.65	1.00
Final Sat.:	2	1698	1800	0	1800	0	0	1700	1800	591	1109	1800

Capacity Analysis Module:

Vol/Sat:	0.68	0.68	0.01	0.00	0.38	0.00	0.00	0.01	0.00	0.01	0.01	0.00
Crit Moves:	****									****		
Green Time:	86.0	86.0	86.0	0.0	86.0	0.0	0.0	10.0	10.0	10.0	10.0	10.0
Volume/Cap:	0.79	0.79	0.01	0.00	0.44	0.00	0.00	0.07	0.01	0.15	0.15	0.01
Delay/Veh:	6.0	6.0	1.0	0.0	1.8	0.0	0.0	41.0	40.5	41.5	41.5	40.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	6.0	6.0	1.0	0.0	1.8	0.0	0.0	41.0	40.5	41.5	41.5	40.5
LOS by Move:	A	A	A	A	A	A	A	D	D	D	D	D
HCM2kAvgQ:	18	18	0	0	5	0	0	0	0	1	1	0

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
A.M. Peak Hour

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Scenario Report

Scenario: 2008 Alt 2 AM  
Command: 2008 Alt 2 AM  
Volume: 2008 Alt 2 AM  
Geometry: Alternative C  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Paths  
Routes: Default Routes  
Configuration: 2004/2008

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.674  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 35.6  
 Optimal Cycle: 80 Level Of Service: D

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	67	68	324	145	280	80	12	255	100	440	768	116
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	68	324	145	280	80	12	255	100	440	768	116
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	70	71	338	151	292	83	13	266	104	459	801	121
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	70	71	338	151	292	83	13	266	104	459	801	121
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	70	71	338	151	292	83	13	266	104	459	801	121

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.04	0.02	0.19	0.09	0.08	0.05	0.01	0.07	0.06	0.27	0.22	0.07
Crit Moves:			****	****				****		****		
Green Time:	10.0	26.0	26.0	10.0	26.0	26.0	15.6	26.0	26.0	30.0	40.4	40.4
Volume/Cap:	0.41	0.08	0.72	0.89	0.31	0.18	0.05	0.28	0.22	0.90	0.55	0.17
Delay/Veh:	43.9	28.0	39.2	83.7	30.0	28.9	36.0	29.7	29.3	52.3	23.3	19.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.9	28.0	39.2	83.7	30.0	28.9	36.0	29.7	29.3	52.3	23.3	19.1
LOS by Move:	D	C	D	F	C	C	D	C	C	D	C	B
HCM2kAvgQ:	3	1	11	8	4	2	0	3	3	18	10	2

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.425  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 26.9  
 Optimal Cycle: 80 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	0	1	0	1	0	1	0

Volume Module:

Base Vol:	159	303	12	32	446	338	109	2	56	5	2	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	159	303	12	32	446	338	109	2	56	5	2	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.00	0.87	0.87	0.87
PHF Volume:	183	348	14	37	513	389	125	2	0	6	2	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	183	348	14	37	513	389	125	2	0	6	2	52
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	183	348	14	37	513	389	125	2	0	6	2	52

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	3200	1800	1800	1700	1800	1800

Capacity Analysis Module:

Vol/Sat:	0.11	0.10	0.01	0.02	0.14	0.22	0.04	0.00	0.00	0.00	0.00	0.03
Crit Moves:	****			****			****			****		
Green Time:	18.6	40.4	40.4	15.6	37.4	37.4	10.0	26.0	0.0	10.0	26.0	26.0
Volume/Cap:	0.58	0.24	0.02	0.14	0.38	0.58	0.39	0.00	0.00	0.03	0.00	0.11
Delay/Veh:	39.7	19.7	17.9	36.7	23.0	26.3	42.9	27.4	0.0	40.7	27.4	28.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.7	19.7	17.9	36.7	23.0	26.3	42.9	27.4	0.0	40.7	27.4	28.3
LOS by Move:	D	B	B	D	C	C	D	C	A	D	C	C
HCM2kAvgQ:	6	4	0	1	6	10	2	0	0	0	0	1

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Average Delay (sec/veh): 1.6 Worst Case Level Of Service: B[ 12.5]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	388	3	56	454	0	0	0	0	7	0	86
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	388	3	56	454	0	0	0	0	7	0	86
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	434	3	63	508	0	0	0	0	8	0	96
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	434	3	63	508	0	0	0	0	8	0	96

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxx	xxxx	xxxxx	437	xxxx	xxxxx	xxxx	xxxx	xxxxx	1067	xxxx	434
Potent Cap.:	xxxx	xxxx	xxxxx	1133	xxxx	xxxxx	xxxx	xxxx	xxxxx	248	xxxx	626
Move Cap.:	xxxx	xxxx	xxxxx	1133	xxxx	xxxxx	xxxx	xxxx	xxxxx	237	xxxx	626
Volume/Cap:	xxxx	xxxx	xxxx	0.06	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	0.15

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	0.5
Control Del:	xxxxx	xxxx	xxxxx	8.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	20.7	xxxx	11.8
LOS by Move:	*	*	*	A	*	*	*	*	*	C	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			12.5		
ApproachLOS:	*			*			*			B		

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

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Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #4 Alabama St/Cemex Acc.

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Average Delay (sec/veh): 1.6 Worst Case Level Of Service: B[ 11.6]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	330	7	74	387	0	0	0	0	6	0	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	330	7	74	387	0	0	0	0	6	0	61
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	369	8	83	433	0	0	0	0	7	0	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	369	8	83	433	0	0	0	0	7	0	68

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxx	xxxx	xxxxx	377	xxxx	xxxxx	xxxx	xxxx	xxxxx	968	xxxx	369
Potent Cap.:	xxxx	xxxx	xxxxx	1193	xxxx	xxxxx	xxxx	xxxx	xxxxx	284	xxxx	681
Move Cap.:	xxxx	xxxx	xxxxx	1193	xxxx	xxxxx	xxxx	xxxx	xxxxx	269	xxxx	681
Volume/Cap:	xxxx	xxxx	xxxx	0.07	xxxx	xxxx	xxxx	xxxx	xxxx	0.02	xxxx	0.10

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	0.3
Control Del:	xxxxx	xxxx	xxxxx	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	18.7	xxxx	10.9
LOS by Move:	*	*	*	A	*	*	*	*	*	C	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			11.6		
ApproachLOS:	*			*			*			B		

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

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Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #5 Church St/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.471  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 15.0  
 Optimal Cycle: 61 Level Of Service: B

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	17	17	10	17	17
Lanes:	0	0	0	1	0	0	1	0	2	0	0	2

Volume Module:

Base Vol:	0	0	0	144	0	69	11	713	0	0	1253	67
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	144	0	69	11	713	0	0	1253	67
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	0	0	162	0	78	12	803	0	0	1411	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	162	0	78	12	803	0	0	1411	75
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	162	0	78	12	803	0	0	1411	75

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1700	0	1800	1700	3600	0	0	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.10	0.00	0.04	0.01	0.22	0.00	0.00	0.39	0.04
Crit Moves:						****	****				****	
Green Time:	0.0	0.0	0.0	28.0	0.0	28.0	10.0	66.0	0.0	0.0	56.0	56.0
Volume/Cap:	0.00	0.00	0.00	0.34	0.00	0.15	0.07	0.34	0.00	0.00	0.70	0.07
Delay/Veh:	0.0	0.0	0.0	29.1	0.0	27.2	41.0	7.5	0.0	0.0	17.0	10.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	29.1	0.0	27.2	41.0	7.5	0.0	0.0	17.0	10.1
LOS by Move:	A	A	A	C	A	C	D	A	A	A	B	B
HCM2kAvgQ:	0	0	0	4	0	2	0	5	0	0	16	1

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.978  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 36.7  
 Optimal Cycle: 178 Level Of Service: D

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	1	0	2

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Volume Module:

Base Vol:	0	0	0	182	0	169	0	320	538	783	1150	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	182	0	169	0	320	538	783	1150	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	193	0	179	0	339	571	830	1220	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	193	0	179	0	339	571	830	1220	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	193	0	179	0	339	571	830	1220	0

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Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	0.94	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1700	0	1800	0	3600	1800	1700	3600	0

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Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.11	0.00	0.10	0.00	0.09	0.32	0.49	0.34	0.00
Crit Moves:				****					****	****		
Green Time:	0.0	0.0	0.0	11.6	0.0	11.6	0.0	32.4	32.4	50.0	82.4	0.0
Volume/Cap:	0.00	0.00	0.00	0.98	0.00	0.86	0.00	0.29	0.98	0.98	0.41	0.00
Delay/Veh:	0.0	0.0	0.0	101.4	0.0	71.2	0.0	25.3	64.9	49.8	2.4	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	101.4	0.0	71.2	0.0	25.3	64.9	49.8	2.4	0.0
LOS by Move:	A	A	A	F	A	E	A	C	E	D	A	A
HCM2kAvgQ:	0	0	0	10	0	8	0	4	23	33	5	0

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.831  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 28.8  
 Optimal Cycle: 66 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18								
Lanes:	0	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	2	0	1

Volume Module:

Base Vol:	565	0	358	0	0	0	61	441	0	0	1367	277
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	565	0	358	0	0	0	61	441	0	0	1367	277
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	590	0	374	0	0	0	64	461	0	0	1428	289
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	590	0	374	0	0	0	64	461	0	0	1428	289
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	590	0	374	0	0	0	64	461	0	0	1428	289

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	0.94	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1700	0	1800	0	0	0	1700	3600	0	0	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.35	0.00	0.21	0.00	0.00	0.00	0.04	0.13	0.00	0.00	0.40	0.16
Crit Moves:	****						****			****		
Green Time:	39.2	0.0	39.2	0.0	0.0	0.0	10.0	54.8	0.0	0.0	44.8	44.8
Volume/Cap:	0.89	0.00	0.53	0.00	0.00	0.00	0.37	0.23	0.00	0.00	0.89	0.36
Delay/Veh:	41.9	0.0	24.1	0.0	0.0	0.0	43.5	11.8	0.0	0.0	31.6	18.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.9	0.0	24.1	0.0	0.0	0.0	43.5	11.8	0.0	0.0	31.6	18.4
LOS by Move:	D	A	C	A	A	A	D	B	A	A	C	B
HCM2kAvgQ:	21	0	9	0	0	0	2	4	0	0	23	6

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.715  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 41.0  
 Optimal Cycle: 84 Level Of Service: D  
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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	202	109	10	61	184	43	30	383	288	46	1311	116
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	202	109	10	61	184	43	30	383	288	46	1311	116
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	220	119	11	67	201	47	33	418	314	50	1430	126
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	220	119	11	67	201	47	33	418	314	50	1430	126
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	220	119	11	67	201	47	33	418	314	50	1430	126

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	1800	1800	1700	3600	1800	1700	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.13	0.03	0.01	0.04	0.11	0.03	0.02	0.12	0.17	0.03	0.40	0.07
Crit Moves:	****			****			****			****		
Green Time:	13.3	30.4	30.4	10.9	28.0	28.0	10.0	37.4	37.4	13.3	40.7	40.7
Volume/Cap:	0.98	0.11	0.02	0.36	0.40	0.09	0.19	0.31	0.47	0.22	0.98	0.17
Delay/Veh:	95.9	25.1	24.4	42.5	29.7	26.7	41.8	22.3	24.3	39.2	47.0	19.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	95.9	25.1	24.4	42.5	29.7	26.7	41.8	22.3	24.3	39.2	47.0	19.0
LOS by Move:	F	C	C	D	C	C	D	C	C	D	D	B
HCM2kAvgQ:	11	1	0	2	5	1	1	5	7	2	28	2

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.676  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 8.6  
 Optimal Cycle: 33 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	0	411	24	115	752	0	0	26	0	46	29	92
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	411	24	115	752	0	0	26	0	46	29	92
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	0	475	28	133	869	0	0	30	0	53	34	106
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	475	28	133	869	0	0	30	0	53	34	106
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	475	28	133	869	0	0	30	0	53	34	106

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	0.94	1.00	0.94	0.94	1.00	0.94	0.94	1.00	0.94	0.94	1.00
Lanes:	0.00	1.00	1.00	0.13	0.87	0.00	0.00	1.00	1.00	0.61	0.39	1.00
Final Sat.:	0	1700	1800	225	1475	0	0	1700	1800	1043	657	1800

Capacity Analysis Module:

Vol/Sat:	0.00	0.28	0.02	0.59	0.59	0.00	0.00	0.02	0.00	0.05	0.05	0.06
Crit Moves:	****											
Green Time:	0.0	86.0	86.0	86.0	86.0	0.0	0.0	10.0	0.0	10.0	10.0	10.0
Volume/Cap:	0.00	0.32	0.02	0.69	0.69	0.00	0.00	0.18	0.00	0.51	0.51	0.59
Delay/Veh:	0.0	1.5	1.0	3.8	3.8	0.0	0.0	41.7	0.0	45.2	45.2	48.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.5	1.0	3.8	3.8	0.0	0.0	41.7	0.0	45.2	45.2	48.2
LOS by Move:	A	A	A	A	A	A	A	D	A	D	D	D
HCM2kAvgQ:	0	3	0	12	12	0	0	1	0	3	3	4

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
P.M. Peak Hour

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Scenario Report

Scenario: 2008 Alt 2 PM  
Command: 2008 Alt 2 PM  
Volume: 2008 Alt 2 PM  
Geometry: Alternative C  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Paths  
Routes: Default Routes  
Configuration: 2004/2008

Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.903  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 56.0  
 Optimal Cycle: 102 Level Of Service: E

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	45	449	845	88	138	37	58	486	68	191	396	163
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	449	845	88	138	37	58	486	68	191	396	163
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	49	485	914	95	149	40	63	525	74	206	428	176
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	485	914	95	149	40	63	525	74	206	428	176
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	49	485	914	95	149	40	63	525	74	206	428	176

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.03	0.13	0.51	0.06	0.04	0.02	0.04	0.15	0.04	0.12	0.12	0.10
Crit Moves:			****	****			****			****		
Green Time:	15.3	45.2	45.2	10.0	39.9	39.9	10.2	26.0	26.0	10.8	26.6	26.6
Volume/Cap:	0.19	0.30	1.12	0.56	0.10	0.06	0.36	0.56	0.16	1.12	0.45	0.37
Delay/Veh:	37.3	17.5	98.6	47.1	18.9	18.5	43.1	32.8	28.7	147.9	30.9	30.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	37.3	17.5	98.6	47.1	18.9	18.5	43.1	32.8	28.7	147.9	30.9	30.4
LOS by Move:	D	B	F	D	B	B	D	C	C	F	C	C
HCM2kAvgQ:	1	5	44	4	1	1	2	8	2	13	6	5

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.483  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 35.0  
 Optimal Cycle: 80 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	0	1	2	0	1	0	1

Volume Module:

Base Vol:	70	727	3	1	302	94	591	2	161	4	2	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	70	727	3	1	302	94	591	2	161	4	2	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.00	0.90	0.90	0.90
PHF Volume:	78	809	3	1	336	105	657	2	0	4	2	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	809	3	1	336	105	657	2	0	4	2	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	78	809	3	1	336	105	657	2	0	4	2	24

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	3200	1800	1800	1700	1800	1800

Capacity Analysis Module:

Vol/Sat:	0.05	0.22	0.00	0.00	0.09	0.06	0.21	0.00	0.00	0.00	0.00	0.01
Crit Moves:	****			****			****			****		
Green Time:	10.9	29.2	29.2	10.0	28.3	28.3	26.8	38.1	0.0	14.7	26.0	26.0
Volume/Cap:	0.42	0.77	0.01	0.01	0.33	0.20	0.77	0.00	0.00	0.02	0.00	0.05
Delay/Veh:	43.1	35.8	25.1	40.5	28.5	27.5	38.0	19.2	0.0	36.5	27.4	27.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.1	35.8	25.1	40.5	28.5	27.5	38.0	19.2	0.0	36.5	27.4	27.8
LOS by Move:	D	D	C	D	C	C	D	B	A	D	C	C
HCM2kAvgQ:	3	13	0	0	4	2	12	0	0	0	0	1

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Average Delay (sec/veh): 0.9 Worst Case Level Of Service: C[ 17.5]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	768	0	52	416	0	0	0	0	3	0	34
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	768	0	52	416	0	0	0	0	3	0	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	861	0	58	466	0	0	0	0	3	0	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	861	0	58	466	0	0	0	0	3	0	38

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxx	xxxx	xxxxx	861	xxxx	xxxxx	xxxx	xxxx	xxxxx	1444	xxxx	861
Potent Cap.:	xxxx	xxxx	xxxxx	789	xxxx	xxxxx	xxxx	xxxx	xxxxx	147	xxxx	358
Move Cap.:	xxxx	xxxx	xxxxx	789	xxxx	xxxxx	xxxx	xxxx	xxxxx	139	xxxx	358
Volume/Cap:	xxxx	xxxx	xxxx	0.07	xxxx	xxxx	xxxx	xxxx	xxxx	0.02	xxxx	0.11

Level of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	0.4
Control Del:	xxxxx	xxxx	xxxxx	9.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	31.6	xxxx	16.2
LOS by Move:	*	*	*	A	*	*	*	*	*	D	*	C
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			17.5		
ApproachLOS:	*			*			*			C		

\*\*\*\*\*

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

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Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #4 Alabama St/Cemex Acc.

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Average Delay (sec/veh): 0.7 Worst Case Level Of Service: C[ 17.4]

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign										
Rights:	Include			Include			Include			Include										
Lanes:	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	1	0	0	0	1

Volume Module:

Base Vol:	0	738	1	19	400	0	0	0	0	6	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	738	1	19	400	0	0	0	0	6	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	827	1	21	448	0	0	0	0	7	0	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	827	1	21	448	0	0	0	0	7	0	34

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	828	xxxx	xxxxx	xxxx	xxxx	xxxxx	1318	xxxx	827
Potent Cap.:	xxxx	xxxx	xxxxx	812	xxxx	xxxxx	xxxx	xxxx	xxxxx	175	xxxx	374
Move Cap.:	xxxx	xxxx	xxxxx	812	xxxx	xxxxx	xxxx	xxxx	xxxxx	172	xxxx	374
Volume/Cap:	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.04	xxxx	0.09

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	0.3
Control Del:	xxxxx	xxxx	xxxxx	9.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	26.8	xxxx	15.6
LOS by Move:	*	*	*	A	*	*	*	*	*	D	*	C
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			17.4		
ApproachLOS:	*			*			*			C		

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #5 Church St/5th St

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.457  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 14.8  
 Optimal Cycle: 61 Level Of Service: B  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	17	17	10	17	17
Lanes:	0	0	0	0	0	0	1	0	0	0	0	0

Volume Module:

Base Vol:	0	0	0	77	0	26	64	1356	0	0	724	139
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	77	0	26	64	1356	0	0	724	139
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	0	0	0	85	0	29	70	1488	0	0	795	153
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	85	0	29	70	1488	0	0	795	153
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	85	0	29	70	1488	0	0	795	153

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1700	0	1800	1700	3600	0	0	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.05	0.00	0.02	0.04	0.41	0.00	0.00	0.22	0.08
Crit Moves:						****		****		****		
Green Time:	0.0	0.0	0.0	28.0	0.0	28.0	20.6	66.0	0.0	0.0	45.4	45.4
Volume/Cap:	0.00	0.00	0.00	0.18	0.00	0.06	0.20	0.63	0.00	0.00	0.49	0.19
Delay/Veh:	0.0	0.0	0.0	27.5	0.0	26.4	33.2	10.4	0.0	0.0	19.3	16.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	27.5	0.0	26.4	33.2	10.4	0.0	0.0	19.3	16.4
LOS by Move:	A	A	A	C	A	C	C	B	A	A	B	B
HCM2kAvgQ:	0	0	0	2	0	1	2	14	0	0	9	3

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.731  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 24.1  
 Optimal Cycle: 46 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	1	0	2

Volume Module:

Base Vol:	0	0	0	257	0	100	0	988	446	373	757	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	257	0	100	0	988	446	373	757	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	274	0	106	0	1052	475	397	806	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	274	0	106	0	1052	475	397	806	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	274	0	106	0	1052	475	397	806	0

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	0.94	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1700	0	1800	0	3600	1800	1700	3600	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.06	0.00	0.29	0.26	0.23	0.22	0.00
Crit Moves:				****				****				
Green Time:	0.0	0.0	0.0	22.0	0.0	22.0	0.0	40.0	40.0	32.0	72.0	0.0
Volume/Cap:	0.00	0.00	0.00	0.73	0.00	0.27	0.00	0.73	0.66	0.73	0.31	0.00
Delay/Veh:	0.0	0.0	0.0	43.4	0.0	32.7	0.0	27.4	26.7	35.2	5.1	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	43.4	0.0	32.7	0.0	27.4	26.7	35.2	5.1	0.0
LOS by Move:	A	A	A	D	A	C	A	C	C	D	A	A
HCM2kAvgQ:	0	0	0	10	0	3	0	15	13	13	4	0

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.708  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 25.5  
 Optimal Cycle: 44 Level Of Service: C

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18
Lanes:	0	1	0	0	0	0	1	0	2	0	0	2

Volume Module:

Base Vol:	462	0	581	0	0	0	142	1103	0	0	668	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	462	0	581	0	0	0	142	1103	0	0	668	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	489	0	615	0	0	0	150	1167	0	0	707	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	489	0	615	0	0	0	150	1167	0	0	707	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	489	0	615	0	0	0	150	1167	0	0	707	132

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	0.94	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1700	0	1800	0	0	0	1700	3600	0	0	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.29	0.00	0.34	0.00	0.00	0.00	0.09	0.32	0.00	0.00	0.20	0.07
Crit Moves:	****						****			****		
Green Time:	48.2	0.0	48.2	0.0	0.0	0.0	15.4	45.8	0.0	0.0	30.3	30.3
Volume/Cap:	0.60	0.00	0.71	0.00	0.00	0.00	0.57	0.71	0.00	0.00	0.65	0.24
Delay/Veh:	20.0	0.0	23.1	0.0	0.0	0.0	42.2	23.2	0.0	0.0	31.6	26.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.0	0.0	23.1	0.0	0.0	0.0	42.2	23.2	0.0	0.0	31.6	26.4
LOS by Move:	C	A	C	A	A	A	D	C	A	A	C	C
HCM2kAvgQ:	12	0	16	0	0	0	5	15	0	0	10	3

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

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.588  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 30.7  
 Optimal Cycle: 84 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	2	0	1	0	1	0	2	0	1	0

Volume Module:

Base Vol:	200	355	41	139	170	37	41	1032	319	30	536	98
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	200	355	41	139	170	37	41	1032	319	30	536	98
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	210	372	43	146	178	39	43	1082	334	31	562	103
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	210	372	43	146	178	39	43	1082	334	31	562	103
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	210	372	43	146	178	39	43	1082	334	31	562	103

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	1800	1800	1700	3600	1800	1700	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.12	0.10	0.02	0.09	0.10	0.02	0.03	0.30	0.19	0.02	0.16	0.06
Crit Moves:	****			****			****			****		
Green Time:	15.7	32.2	32.2	11.5	28.0	28.0	12.7	38.3	38.3	10.0	35.6	35.6
Volume/Cap:	0.78	0.32	0.07	0.75	0.35	0.08	0.20	0.78	0.49	0.18	0.44	0.16
Delay/Veh:	54.6	25.8	23.6	57.2	29.2	26.6	39.5	30.3	23.9	41.8	24.8	22.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.6	25.8	23.6	57.2	29.2	26.6	39.5	30.3	23.9	41.8	24.8	22.1
LOS by Move:	D	C	C	E	C	C	D	C	C	D	C	C
HCM2kAvgQ:	9	4	1	6	4	1	1	16	8	1	7	2

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.712  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 5.2  
 Optimal Cycle: 37 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	1	1050	10	17	618	0	0	2	1	9	0	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	1050	10	17	618	0	0	2	1	9	0	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	1	1151	11	19	678	0	0	2	1	10	0	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	1151	11	19	678	0	0	2	1	10	0	26
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	1	1151	11	19	678	0	0	2	1	10	0	26

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	0.94	1.00	0.94	0.94	1.00	0.94	0.94	1.00	0.94	0.94	1.00
Lanes:	0.01	0.99	1.00	0.03	0.97	0.00	0.00	1.00	1.00	1.00	0.00	1.00
Final Sat.:	2	1698	1800	46	1654	0	0	1700	1800	1700	0	1800

Capacity Analysis Module:

Vol/Sat:	0.68	0.68	0.01	0.41	0.41	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Crit Moves:	****									****		
Green Time:	86.0	86.0	86.0	86.0	86.0	0.0	0.0	10.0	10.0	10.0	0.0	10.0
Volume/Cap:	0.79	0.79	0.01	0.48	0.48	0.00	0.00	0.01	0.01	0.06	0.00	0.15
Delay/Veh:	6.0	6.0	1.0	1.9	1.9	0.0	0.0	40.6	40.5	40.9	0.0	41.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	6.0	6.0	1.0	1.9	1.9	0.0	0.0	40.6	40.5	40.9	0.0	41.5
LOS by Move:	A	A	A	A	A	A	A	D	D	D	A	D
HCM2kAvgQ:	18	18	0	6	6	0	0	0	0	0	0	1

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Year 2030 Background Conditions with Existing Plant Traffic  
A.M. Peak Hour

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Scenario Report

Scenario: 2030 NP AM  
Command: 2030 NP AM  
Volume: 2030 NP AM  
Geometry: Alternative C  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Paths  
Routes: Default Routes  
Configuration: 2030

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 Upper Santa Ana River Wash  
 Year 2030 Background Conditions with Existing Plant Traffic  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.256  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 191.9  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	84	134	521	102	893	120	22	317	219	1173	995	74
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	84	134	521	102	893	120	22	317	219	1173	995	74
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	88	141	548	107	940	126	23	334	231	1235	1047	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	141	548	107	940	126	23	334	231	1235	1047	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	88	141	548	107	940	126	23	334	231	1235	1047	78

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.05	0.04	0.29	0.06	0.25	0.07	0.01	0.09	0.12	0.69	0.28	0.04
Crit Moves:			****	****					****	****		
Green Time:	10.0	26.0	26.0	10.0	26.0	26.0	14.9	26.0	26.0	30.0	41.1	41.1
Volume/Cap:	0.49	0.14	1.11	0.60	0.95	0.26	0.09	0.34	0.47	2.29	0.67	0.10
Delay/Veh:	44.7	28.5	111.1	48.4	54.4	29.6	36.8	30.2	31.9	619.8	25.1	18.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.7	28.5	111.1	48.4	54.4	29.6	36.8	30.2	31.9	619.8	25.1	18.1
LOS by Move:	D	C	F	D	D	C	D	C	C	F	C	B
HCM2kAvgQ:	3	2	28	4	19	3	1	4	6	130	14	1

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Background Conditions with Existing Plant Traffic  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.795  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 71.5  
 Optimal Cycle: 80 Level Of Service: E  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	0	1	0	1	0	1	0

Volume Module:

Base Vol:	295	426	11	26	1634	625	273	5	343	8	1	40
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	295	426	11	26	1634	625	273	5	343	8	1	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	311	448	12	27	1720	658	287	5	0	8	1	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	311	448	12	27	1720	658	287	5	0	8	1	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	311	448	12	27	1720	658	287	5	0	8	1	42

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	3400	1900	1900	1800	1900	1900

Capacity Analysis Module:

Vol/Sat:	0.17	0.12	0.01	0.02	0.45	0.35	0.08	0.00	0.00	0.00	0.00	0.02
Crit Moves:	****			****			****			****		
Green Time:	15.5	40.4	40.4	15.6	40.5	40.5	10.0	26.0	0.0	10.0	26.0	26.0
Volume/Cap:	1.12	0.29	0.02	0.10	1.12	0.85	0.85	0.01	0.00	0.05	0.00	0.09
Delay/Veh:	131.2	20.2	17.9	36.4	91.6	36.2	61.6	27.5	0.0	40.8	27.4	28.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	131.2	20.2	17.9	36.4	91.6	36.2	61.6	27.5	0.0	40.8	27.4	28.1
LOS by Move:	F	C	B	D	F	D	E	C	A	D	C	C
HCM2kAvgQ:	18	5	0	1	41	21	7	0	0	0	0	1

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

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 Upper Santa Ana River Wash  
 Year 2030 Background Conditions with Existing Plant Traffic  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Average Delay (sec/veh): 1.4 Worst Case Level Of Service: E[ 35.6]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	1	0	0	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	646	3	56	1931	0	0	0	0	7	0	86
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	646	3	56	1931	0	0	0	0	7	0	86
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	680	3	59	2033	0	0	0	0	7	0	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	680	3	59	2033	0	0	0	0	7	0	91

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	6.4	xxxxx	6.2
FollowUpTim:	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	3.5	xxxxx	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxxx	xxxxx	xxxxx	683	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	2831	xxxxx	680
Potent Cap.:	xxxxx	xxxxx	xxxxx	919	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	20	xxxxx	454
Move Cap.:	xxxxx	xxxxx	xxxxx	919	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	19	xxxxx	454
Volume/Cap:	xxxxx	xxxxx	xxxxx	0.06	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.39	xxxxx	0.20

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxxx	xxxxx	xxxxx	0.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1.1	xxxxx	0.7
Control Del:	xxxxx	xxxxx	xxxxx	9.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	289.5	xxxxx	14.9
LOS by Move:	*	*	*	A	*	*	*	*	*	F	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
SharedQueue:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shrd ConDel:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			35.6		
ApproachLOS:	*			*			*			E		

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

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 Upper Santa Ana River Wash  
 Year 2030 Background Conditions with Existing Plant Traffic  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #4 Alabama St/Cemex Acc.

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Average Delay (sec/veh): 1.1 Worst Case Level Of Service: D[ 33.2]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	588	7	74	1864	0	0	0	0	6	0	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	588	7	74	1864	0	0	0	0	6	0	61
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	619	7	78	1962	0	0	0	0	6	0	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	619	7	78	1962	0	0	0	0	6	0	64

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxx	xxxx	xxxxx	626	xxxx	xxxxx	xxxx	xxxx	xxxxx	2737	xxxx	619
Potent Cap.:	xxxx	xxxx	xxxxx	965	xxxx	xxxxx	xxxx	xxxx	xxxxx	23	xxxx	492
Move Cap.:	xxxx	xxxx	xxxxx	965	xxxx	xxxxx	xxxx	xxxx	xxxxx	21	xxxx	492
Volume/Cap:	xxxx	xxxx	xxxx	0.08	xxxx	xxxx	xxxx	xxxx	xxxx	0.30	xxxx	0.13

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.9	xxxx	0.4
Control Del:	xxxxx	xxxx	xxxxx	9.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	234.2	xxxx	13.4
LOS by Move:	*	*	*	A	*	*	*	*	*	F	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			33.2		
ApproachLOS:	*			*			*			D		

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

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 Upper Santa Ana River Wash  
 Year 2030 Background Conditions with Existing Plant Traffic  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #5 Church St/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.743  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 30.1  
 Optimal Cycle: 61 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	17	17	10	17	17
Lanes:	0	0	0	0	0	0	1	0	0	0	0	0

Volume Module:

Base Vol:	0	0	0	191	0	225	25	914	0	0	2017	76
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	191	0	225	25	914	0	0	2017	76
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	201	0	237	26	962	0	0	2123	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	201	0	237	26	962	0	0	2123	80
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	201	0	237	26	962	0	0	2123	80

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1800	0	1900	1800	3800	0	0	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.11	0.00	0.12	0.01	0.25	0.00	0.00	0.56	0.04
Crit Moves:						****	****			****		
Green Time:	0.0	0.0	0.0	28.0	0.0	28.0	10.0	66.0	0.0	0.0	56.0	56.0
Volume/Cap:	0.00	0.00	0.00	0.40	0.00	0.45	0.15	0.38	0.00	0.00	1.00	0.08
Delay/Veh:	0.0	0.0	0.0	29.7	0.0	30.2	41.5	7.8	0.0	0.0	40.9	10.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	29.7	0.0	30.2	41.5	7.8	0.0	0.0	40.9	10.1
LOS by Move:	A	A	A	C	A	C	D	A	A	A	D	B
HCM2kAvgQ:	0	0	0	5	0	6	1	7	0	0	41	1

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

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 Upper Santa Ana River Wash  
 Year 2030 Background Conditions with Existing Plant Traffic  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.205  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 74.1  
 Optimal Cycle: 180 Level Of Service: E

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	1	0	2

Volume Module:

Base Vol:	0	0	0	275	0	439	0	307	798	765	1654	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	275	0	439	0	307	798	765	1654	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	289	0	462	0	323	840	805	1741	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	289	0	462	0	323	840	805	1741	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	289	0	462	0	323	840	805	1741	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1800	0	1900	0	3800	1900	1800	3800	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.24	0.00	0.09	0.44	0.45	0.46	0.00
Crit Moves:						****			****	****		
Green Time:	0.0	0.0	0.0	20.2	0.0	20.2	0.0	36.7	36.7	37.1	73.8	0.0
Volume/Cap:	0.00	0.00	0.00	0.80	0.00	1.20	0.00	0.23	1.20	1.20	0.62	0.00
Delay/Veh:	0.0	0.0	0.0	49.6	0.0	154.4	0.0	22.0	137.2	137.5	6.8	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	49.6	0.0	154.4	0.0	22.0	137.2	137.5	6.8	0.0
LOS by Move:	A	A	A	D	A	F	A	C	F	F	A	A
HCM2kAvgQ:	0	0	0	11	0	27	0	3	46	46	13	0

Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Background Conditions with Existing Plant Traffic  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.061  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 66.7  
 Optimal Cycle: 180 Level Of Service: E

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Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18								
Lanes:	0	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	2	0	1

Volume Module:

Base Vol:	850	0	452	0	0	0	113	469	0	0	1569	280
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	850	0	452	0	0	0	113	469	0	0	1569	280
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	895	0	476	0	0	0	119	494	0	0	1652	295
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	895	0	476	0	0	0	119	494	0	0	1652	295
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	895	0	476	0	0	0	119	494	0	0	1652	295

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1800	0	1900	0	0	0	1800	3800	0	0	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.50	0.00	0.25	0.00	0.00	0.00	0.07	0.13	0.00	0.00	0.43	0.16
Crit Moves:	****						****			****		
Green Time:	44.8	0.0	44.8	0.0	0.0	0.0	10.0	49.2	0.0	0.0	39.2	39.2
Volume/Cap:	1.11	0.00	0.56	0.00	0.00	0.00	0.66	0.26	0.00	0.00	1.11	0.40
Delay/Veh:	93.6	0.0	21.2	0.0	0.0	0.0	52.2	14.9	0.0	0.0	89.7	22.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	93.6	0.0	21.2	0.0	0.0	0.0	52.2	14.9	0.0	0.0	89.7	22.2
LOS by Move:	F	A	C	A	A	A	D	B	A	A	F	C
HCM2kAvgQ:	44	0	11	0	0	0	5	4	0	0	39	7

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

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 Upper Santa Ana River Wash  
 Year 2030 Background Conditions with Existing Plant Traffic  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.087  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 83.5  
 Optimal Cycle: 180 Level Of Service: F  
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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	271	220	49	207	687	11	3	450	367	441	1246	76
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	271	220	49	207	687	11	3	450	367	441	1246	76
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	285	232	52	218	723	12	3	474	386	464	1312	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	285	232	52	218	723	12	3	474	386	464	1312	80
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	285	232	52	218	723	12	3	474	386	464	1312	80

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	1900	1900	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.16	0.06	0.03	0.12	0.38	0.01	0.00	0.12	0.20	0.26	0.35	0.04
Crit Moves:	****			****			****			****		
Green Time:	12.7	30.2	30.2	13.1	30.6	30.6	10.9	28.0	28.0	20.7	37.8	37.8
Volume/Cap:	1.25	0.20	0.09	0.93	1.25	0.02	0.02	0.45	0.73	1.25	0.91	0.11
Delay/Veh:	185.1	26.0	25.1	82.0	159	24.3	39.8	29.9	37.5	170.7	38.8	20.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	185.1	26.0	25.1	82.0	159	24.3	39.8	29.9	37.5	170.7	38.8	20.3
LOS by Move:	F	C	C	F	F	C	D	C	D	F	D	C
HCM2kAvgQ:	19	3	1	11	42	0	0	6	12	30	23	2

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Background Conditions with Existing Plant Traffic  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.151  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 84.4  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	0	678	20	56	1762	0	0	26	0	42	29	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	678	20	56	1762	0	0	26	0	42	29	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	714	21	59	1855	0	0	27	0	44	31	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	714	21	59	1855	0	0	27	0	44	31	32
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	714	21	59	1855	0	0	27	0	44	31	32

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Lanes:	0.00	1.00	1.00	0.03	0.97	0.00	0.00	1.00	1.00	0.59	0.41	1.00
Final Sat.:	0	1800	1900	55	1745	0	0	1800	1900	1065	735	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.40	0.01	1.06	1.06	0.00	0.00	0.02	0.00	0.04	0.04	0.02
Crit Moves:				****						****		
Green Time:	0.0	86.0	86.0	86.0	86.0	0.0	0.0	10.0	0.0	10.0	10.0	10.0
Volume/Cap:	0.00	0.46	0.01	1.24	1.24	0.00	0.00	0.15	0.00	0.42	0.42	0.17
Delay/Veh:	0.0	1.8	1.0	119.1	119	0.0	0.0	41.5	0.0	43.8	43.8	41.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.8	1.0	119.1	119	0.0	0.0	41.5	0.0	43.8	43.8	41.6
LOS by Move:	A	A	A	F	F	A	A	D	A	D	D	D
HCM2kAvgQ:	0	6	0	109	109	0	0	1	0	3	3	1

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

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Upper Santa Ana River Wash  
Year 2030 Background Conditions with Existing Plant Traffic  
P.M. Peak Hour

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Scenario Report

Scenario: 2030 NP PM  
Command: 2030 NP PM  
Volume: 2030 NP PM  
Geometry: Alternative C  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Paths  
Routes: Default Routes  
Configuration: 2030

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 Upper Santa Ana River Wash  
 Year 2030 Background Conditions with Existing Plant Traffic  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.458  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 187.2  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	196	974	1611	61	325	67	76	783	275	335	534	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	196	974	1611	61	325	67	76	783	275	335	534	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	206	1025	1696	64	342	71	80	824	289	353	562	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	206	1025	1696	64	342	71	80	824	289	353	562	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	206	1025	1696	64	342	71	80	824	289	353	562	132

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.11	0.27	0.89	0.04	0.09	0.04	0.04	0.22	0.15	0.20	0.15	0.07
Crit Moves:			****	****				****		****		
Green Time:	17.1	45.9	45.9	10.0	38.8	38.8	10.0	26.0	26.0	10.1	26.1	26.1
Volume/Cap:	0.67	0.59	1.94	0.36	0.23	0.10	0.44	0.83	0.59	1.94	0.57	0.27
Delay/Veh:	44.4	20.6	455.9	43.2	20.7	19.5	44.1	41.2	34.1	489.1	32.9	29.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.4	20.6	455.9	43.2	20.7	19.5	44.1	41.2	34.1	489.1	32.9	29.7
LOS by Move:	D	C	F	D	C	B	D	D	C	F	C	C
HCM2kAvgQ:	7	12	152	2	3	1	3	15	8	35	8	3

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

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 Upper Santa Ana River Wash  
 Year 2030 Background Conditions with Existing Plant Traffic  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.874  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 180.2  
 Optimal Cycle: 88 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	2	0	1	0	1	1

Volume Module:

Base Vol:	463	1885	4	1	653	281	880	1	456	6	4	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	463	1885	4	1	653	281	880	1	456	6	4	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	487	1984	4	1	687	296	926	1	0	6	4	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	487	1984	4	1	687	296	926	1	0	6	4	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	487	1984	4	1	687	296	926	1	0	6	4	17

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	3400	1900	1900	1800	1900	1900

Capacity Analysis Module:

Vol/Sat:	0.27	0.52	0.00	0.00	0.18	0.16	0.27	0.00	0.00	0.00	0.00	0.01
Crit Moves:	****			****			****			****		
Green Time:	20.8	36.8	36.8	10.0	26.0	26.0	19.2	32.6	0.0	12.6	26.0	26.0
Volume/Cap:	1.30	1.42	0.01	0.01	0.70	0.60	1.42	0.00	0.00	0.03	0.01	0.03
Delay/Veh:	193.7	224	20.0	40.5	35.6	34.5	237.8	22.7	0.0	38.4	27.4	27.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	193.7	224	20.0	40.5	35.6	34.5	237.8	22.7	0.0	38.4	27.4	27.7
LOS by Move:	F	F	C	D	D	C	F	C	A	D	C	C
HCM2kAvgQ:	33	67	0	0	11	9	36	0	0	0	0	0

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Background Conditions with Existing Plant Traffic  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Average Delay (sec/veh): 4.1 Worst Case Level Of Service: F[337.8]

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound												
Movement:	L	T	R	L	T	R	L	T	R	L	T	R										
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign												
Rights:	Include			Include			Include			Include												
Lanes:	0	0	1	0	1		1	0	1	0	0		0	0	0	0	0	1	0	0	0	1

Volume Module:

Base Vol:	0	2318	0	52	1063	0	0	0	0	0	3	0	34
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2318	0	52	1063	0	0	0	0	0	3	0	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	2440	0	55	1119	0	0	0	0	0	3	0	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	2440	0	55	1119	0	0	0	0	0	3	0	36

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	2440	xxxx	xxxxx	xxxx	xxxx	xxxxx	3668	xxxx	2440
Potent Cap.:	xxxx	xxxx	xxxxx	196	xxxx	xxxxx	xxxx	xxxx	xxxxx	6	xxxx	41
Move Cap.:	xxxx	xxxx	xxxxx	196	xxxx	xxxxx	xxxx	xxxx	xxxxx	4	xxxx	41
Volume/Cap:	xxxx	xxxx	xxxx	0.28	xxxx	xxxx	xxxx	xxxx	xxxx	0.73	xxxx	0.88

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	1.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.0	xxxx	3.4
Control Del:	xxxxx	xxxx	xxxxx	30.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	1294	xxxx	253.5
LOS by Move:	*	*	*	D	*	*	*	*	*	F	*	F
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			337.8		
ApproachLOS:	*			*			*			F		

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

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 Upper Santa Ana River Wash  
 Year 2030 Background Conditions with Existing Plant Traffic  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #4 Alabama St/Cemex Acc.

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Average Delay (sec/veh): 4.0 Worst Case Level Of Service: F[359.4]

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Approach:	North Bound			South Bound			East Bound			West Bound												
Movement:	L	T	R	L	T	R	L	T	R	L	T	R										
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign												
Rights:	Include			Include			Include			Include												
Lanes:	0	0	1	0	1		1	0	1	0	0		0	0	0	0	0	1	0	0	0	1

Volume Module:

Base Vol:	0	2288	1	19	1047	0	0	0	0	0	6	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2288	1	19	1047	0	0	0	0	0	6	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	2408	1	20	1102	0	0	0	0	0	6	0	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	2408	1	20	1102	0	0	0	0	0	6	0	32

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	2409	xxxx	xxxxx	xxxx	xxxx	xxxxx	3551	xxxx	2408
Potent Cap.:	xxxx	xxxx	xxxxx	201	xxxx	xxxxx	xxxx	xxxx	xxxxx	7	xxxx	43
Move Cap.:	xxxx	xxxx	xxxxx	201	xxxx	xxxxx	xxxx	xxxx	xxxxx	6	xxxx	43
Volume/Cap:	xxxx	xxxx	xxxx	0.10	xxxx	xxxx	xxxx	xxxx	xxxx	1.03	xxxx	0.74

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.5	xxxx	2.8
Control Del:	xxxxx	xxxx	xxxxx	24.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	1117	xxxx	207.8
LOS by Move:	*	*	*	C	*	*	*	*	*	F	*	F
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			359.4		
ApproachLOS:	*			*			*			F		

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

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 Upper Santa Ana River Wash  
 Year 2030 Background Conditions with Existing Plant Traffic  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #5 Church St/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.710  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 24.5  
 Optimal Cycle: 61 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	17	17	10	17	17
Lanes:	0	0	0	0	0	0	1	0	0	0	0	0

Volume Module:

Base Vol:	0	0	0	89	0	59	165	2291	0	0	936	193
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	89	0	59	165	2291	0	0	936	193
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	94	0	62	174	2412	0	0	985	203
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	94	0	62	174	2412	0	0	985	203
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	94	0	62	174	2412	0	0	985	203

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1800	0	1900	1800	3800	0	0	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.05	0.00	0.03	0.10	0.63	0.00	0.00	0.26	0.11
Crit Moves:						****		****		****		
Green Time:	0.0	0.0	0.0	28.0	0.0	28.0	18.4	66.0	0.0	0.0	47.6	47.6
Volume/Cap:	0.00	0.00	0.00	0.19	0.00	0.12	0.53	0.96	0.00	0.00	0.54	0.22
Delay/Veh:	0.0	0.0	0.0	27.5	0.0	26.9	38.4	26.3	0.0	0.0	18.9	15.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	27.5	0.0	26.9	38.4	26.3	0.0	0.0	18.9	15.5
LOS by Move:	A	A	A	C	A	C	D	C	A	A	B	B
HCM2kAvgQ:	0	0	0	2	0	1	6	41	0	0	11	4

Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Background Conditions with Existing Plant Traffic  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.023  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 38.1  
 Optimal Cycle: 180 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	1	0	2

Volume Module:

Base Vol:	0	0	0	248	0	134	0	1430	950	497	996	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	248	0	134	0	1430	950	497	996	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	261	0	141	0	1505	1000	523	1048	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	261	0	141	0	1505	1000	523	1048	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	261	0	141	0	1505	1000	523	1048	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1800	0	1900	0	3800	1900	1800	3800	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.15	0.00	0.07	0.00	0.40	0.53	0.29	0.28	0.00
Crit Moves:				****					****	****		
Green Time:	0.0	0.0	0.0	14.2	0.0	14.2	0.0	51.4	51.4	28.4	79.8	0.0
Volume/Cap:	0.00	0.00	0.00	1.02	0.00	0.52	0.00	0.77	1.02	1.02	0.35	0.00
Delay/Veh:	0.0	0.0	0.0	105.4	0.0	41.7	0.0	21.5	59.1	81.7	2.9	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	105.4	0.0	41.7	0.0	21.5	59.1	81.7	2.9	0.0
LOS by Move:	A	A	A	F	A	D	A	C	E	F	A	A
HCM2kAvgQ:	0	0	0	14	0	5	0	20	40	24	5	0

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Background Conditions with Existing Plant Traffic  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.868  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 32.7  
 Optimal Cycle: 78 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18								
Lanes:	0	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	2	0	1

Volume Module:

Base Vol:	619	0	753	0	0	0	239	1439	0	0	874	194
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	619	0	753	0	0	0	239	1439	0	0	874	194
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	652	0	793	0	0	0	252	1515	0	0	920	204
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	652	0	793	0	0	0	252	1515	0	0	920	204
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	652	0	793	0	0	0	252	1515	0	0	920	204

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1800	0	1900	0	0	0	1800	3800	0	0	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.36	0.00	0.42	0.00	0.00	0.00	0.14	0.40	0.00	0.00	0.24	0.11
Crit Moves:	****						****			****		
Green Time:	48.1	0.0	48.1	0.0	0.0	0.0	16.8	45.9	0.0	0.0	29.1	29.1
Volume/Cap:	0.75	0.00	0.87	0.00	0.00	0.00	0.83	0.87	0.00	0.00	0.83	0.37
Delay/Veh:	24.9	0.0	32.0	0.0	0.0	0.0	57.6	29.2	0.0	0.0	38.6	28.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.9	0.0	32.0	0.0	0.0	0.0	57.6	29.2	0.0	0.0	38.6	28.6
LOS by Move:	C	A	C	A	A	A	E	C	A	A	D	C
HCM2kAvgQ:	18	0	25	0	0	0	10	24	0	0	16	5

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

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 Upper Santa Ana River Wash  
 Year 2030 Background Conditions with Existing Plant Traffic  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.166  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 111.9  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	625	1059	64	321	772	64	11	1001	458	4	155	107
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	625	1059	64	321	772	64	11	1001	458	4	155	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	658	1115	67	338	813	67	12	1054	482	4	163	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	658	1115	67	338	813	67	12	1054	482	4	163	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	658	1115	67	338	813	67	12	1054	482	4	163	113

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	1900	1900	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.37	0.29	0.04	0.19	0.43	0.04	0.01	0.28	0.25	0.00	0.04	0.06
Crit Moves:	****			****			****			****		
Green Time:	24.9	32.9	32.9	21.1	29.1	29.1	10.0	28.0	28.0	10.0	28.0	28.0
Volume/Cap:	1.47	0.89	0.11	0.89	1.47	0.12	0.06	0.99	0.91	0.02	0.15	0.21
Delay/Veh:	260.5	40.1	23.4	60.4	256	26.1	40.9	61.0	53.9	40.6	27.2	27.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	260.5	40.1	23.4	60.4	256	26.1	40.9	61.0	53.9	40.6	27.2	27.8
LOS by Move:	F	D	C	E	F	C	D	E	D	D	C	C
HCM2kAvgQ:	50	20	1	14	58	2	0	22	18	0	2	3

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Background Conditions with Existing Plant Traffic  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.334  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 146.5  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	1	2176	9	3	1474	0	0	2	1	8	0	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	2176	9	3	1474	0	0	2	1	8	0	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	1	2291	9	3	1552	0	0	2	1	8	0	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	2291	9	3	1552	0	0	2	1	8	0	14
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	1	2291	9	3	1552	0	0	2	1	8	0	14

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Lanes:	0.01	0.99	1.00	0.01	0.99	0.00	0.00	1.00	1.00	1.00	0.00	1.00
Final Sat.:	1	1799	1900	4	1796	0	0	1800	1900	1800	0	1900

Capacity Analysis Module:

Vol/Sat:	1.27	1.27	0.00	0.86	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Crit Moves:	****									****		
Green Time:	86.0	86.0	86.0	86.0	86.0	0.0	0.0	10.0	10.0	10.0	0.0	10.0
Volume/Cap:	1.48	1.48	0.01	1.00	1.00	0.00	0.00	0.01	0.01	0.05	0.00	0.07
Delay/Veh:	226.7	227	1.0	30.9	30.9	0.0	0.0	40.6	40.5	40.8	0.0	41.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	226.7	227	1.0	30.9	30.9	0.0	0.0	40.6	40.5	40.8	0.0	41.0
LOS by Move:	F	F	A	C	C	A	A	D	D	D	A	D
HCM2kAvgQ:	168	168	0	60	60	0	0	0	0	0	0	0

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
P.M. Peak Hour

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Scenario Report

Scenario: 2030 Alt 1A PM  
Command: 2030 Alt 1A PM  
Volume: 2030 Alt 1A PM  
Geometry: Alternative A  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Paths  
Routes: Default Routes  
Configuration: 2030

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.420  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 175.0  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	196	974	1596	61	325	67	76	783	276	290	534	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	196	974	1596	61	325	67	76	783	276	290	534	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	206	1025	1680	64	342	71	80	824	291	305	562	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	206	1025	1680	64	342	71	80	824	291	305	562	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	206	1025	1680	64	342	71	80	824	291	305	562	132

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.11	0.27	0.88	0.04	0.09	0.04	0.04	0.22	0.15	0.17	0.15	0.07
Crit Moves:			****	****				****		****		
Green Time:	17.1	46.0	46.0	10.0	38.9	38.9	10.0	26.0	26.0	10.0	26.0	26.0
Volume/Cap:	0.67	0.59	1.92	0.36	0.23	0.10	0.44	0.83	0.59	1.70	0.57	0.27
Delay/Veh:	44.4	20.5	446.2	43.2	20.6	19.5	44.1	41.2	34.2	380.9	32.9	29.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.4	20.5	446.2	43.2	20.6	19.5	44.1	41.2	34.2	380.9	32.9	29.7
LOS by Move:	D	C	F	D	C	B	D	D	C	F	C	C
HCM2kAvgQ:	7	12	149	2	3	1	3	15	8	28	8	3

Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.869  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 167.7  
 Optimal Cycle: 86 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	25	25	10	25	25	10	25	25	10	25	25
Lanes:	1	0	2	0	1	0	1	0	1	0	1	0

Volume Module:

Base Vol:	463	1870	4	1	609	281	880	1	456	6	4	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	463	1870	4	1	609	281	880	1	456	6	4	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	487	1968	4	1	641	296	926	1	0	6	4	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	487	1968	4	1	641	296	926	1	0	6	4	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	487	1968	4	1	641	296	926	1	0	6	4	17

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	3400	1900	1900	1800	1900	1900

Capacity Analysis Module:

Vol/Sat:	0.27	0.52	0.00	0.00	0.17	0.16	0.27	0.00	0.00	0.00	0.00	0.01
Crit Moves:	****			****			****			****		
Green Time:	22.4	37.4	37.4	10.0	25.0	25.0	19.6	31.9	0.0	12.8	25.0	25.0
Volume/Cap:	1.21	1.39	0.01	0.01	0.67	0.62	1.39	0.00	0.00	0.03	0.01	0.04
Delay/Veh:	154.9	210	19.7	40.5	35.8	35.9	223.4	23.2	0.0	38.2	28.2	28.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	154.9	210	19.7	40.5	35.8	35.9	223.4	23.2	0.0	38.2	28.2	28.4
LOS by Move:	F	F	B	D	D	D	F	C	A	D	C	C
HCM2kAvgQ:	30	65	0	0	10	9	35	0	0	0	0	0

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Average Delay (sec/veh): 1.7 Worst Case Level Of Service: F[253.3]

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Approach:	North Bound			South Bound			East Bound			West Bound												
Movement:	L	T	R	L	T	R	L	T	R	L	T	R										
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign												
Rights:	Include			Include			Include			Include												
Lanes:	0	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1

Volume Module:

Base Vol:	0	2318	0	7	1064	0	0	0	0	0	3	0	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2318	0	7	1064	0	0	0	0	0	3	0	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	2440	0	7	1120	0	0	0	0	0	3	0	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	2440	0	7	1120	0	0	0	0	0	3	0	20

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	2440	xxxx	xxxxx	xxxx	xxxx	xxxxx	3575	xxxx	2440
Potent Cap.:	xxxx	xxxx	xxxxx	196	xxxx	xxxxx	xxxx	xxxx	xxxxx	6	xxxx	41
Move Cap.:	xxxx	xxxx	xxxxx	196	xxxx	xxxxx	xxxx	xxxx	xxxxx	6	xxxx	41
Volume/Cap:	xxxx	xxxx	xxxx	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	0.51	xxxx	0.49

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.9	xxxx	1.7
Control Del:	xxxxx	xxxx	xxxxx	24.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	852.1	xxxx	158.7
LOS by Move:	*	*	*	C	*	*	*	*	*	F	*	F
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			253.3		
ApproachLOS:	*			*			*			F		

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #4 Alabama St/Cemex Acc.

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Average Delay (sec/veh): 4.0 Worst Case Level Of Service: F[361.1]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	1	0	0

Volume Module:

Base Vol:	0	2288	1	20	1047	0	0	0	0	6	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2288	1	20	1047	0	0	0	0	6	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	2408	1	21	1102	0	0	0	0	6	0	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	2408	1	21	1102	0	0	0	0	6	0	32

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	2409	xxxx	xxxxx	xxxx	xxxx	xxxxx	3553	xxxx	2408
Potent Cap.:	xxxx	xxxx	xxxxx	201	xxxx	xxxxx	xxxx	xxxx	xxxxx	7	xxxx	43
Move Cap.:	xxxx	xxxx	xxxxx	201	xxxx	xxxxx	xxxx	xxxx	xxxxx	6	xxxx	43
Volume/Cap:	xxxx	xxxx	xxxx	0.10	xxxx	xxxx	xxxx	xxxx	xxxx	1.04	xxxx	0.74

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.6	xxxx	2.8
Control Del:	xxxxx	xxxx	xxxxx	25.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	1128	xxxx	207.8
LOS by Move:	*	*	*	C	*	*	*	*	*	F	*	F
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			361.1		
ApproachLOS:	*			*			*			F		

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #5 Church St/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.705  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 23.9  
 Optimal Cycle: 61 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	17	17	10	17	17
Lanes:	0	0	0	0	0	0	1	0	0	0	0	0

Volume Module:

Base Vol:	0	0	0	89	0	59	165	2276	0	0	891	193
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	89	0	59	165	2276	0	0	891	193
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	94	0	62	174	2396	0	0	938	203
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	94	0	62	174	2396	0	0	938	203
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	94	0	62	174	2396	0	0	938	203

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1800	0	1900	1800	3800	0	0	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.05	0.00	0.03	0.10	0.63	0.00	0.00	0.25	0.11
Crit Moves:						****		****		****		
Green Time:	0.0	0.0	0.0	28.0	0.0	28.0	19.0	66.0	0.0	0.0	47.0	47.0
Volume/Cap:	0.00	0.00	0.00	0.19	0.00	0.12	0.51	0.96	0.00	0.00	0.53	0.23
Delay/Veh:	0.0	0.0	0.0	27.5	0.0	26.9	37.5	25.3	0.0	0.0	19.0	15.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	27.5	0.0	26.9	37.5	25.3	0.0	0.0	19.0	15.9
LOS by Move:	A	A	A	C	A	C	D	C	A	A	B	B
HCM2kAvgQ:	0	0	0	2	0	1	6	40	0	0	10	4

Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #6 Truck Access Road/5th St

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Average Delay (sec/veh): 0.0 Worst Case Level Of Service: A[ 0.0]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Ignore			Include			Include			Include		
Lanes:	0	0	1	0	0	0	0	2	0	0	2	0

Volume Module:

Base Vol:	0	0	30	0	0	0	0	2365	0	0	1084	53
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	30	0	0	0	0	2365	0	0	1084	53
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	0	0	0	0	2489	0	0	1141	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	0	0	0	0	2489	0	0	1141	56

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.024  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 37.9  
 Optimal Cycle: 180 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	1	0	2

Volume Module:

Base Vol:	0	0	0	248	0	135	0	1434	961	488	1003	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	248	0	135	0	1434	961	488	1003	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	261	0	142	0	1509	1012	514	1056	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	261	0	142	0	1509	1012	514	1056	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	261	0	142	0	1509	1012	514	1056	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1800	0	1900	0	3800	1900	1800	3800	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.15	0.00	0.07	0.00	0.40	0.53	0.29	0.28	0.00
Crit Moves:				****					****	****		
Green Time:	0.0	0.0	0.0	14.2	0.0	14.2	0.0	52.0	52.0	27.9	79.8	0.0
Volume/Cap:	0.00	0.00	0.00	1.02	0.00	0.53	0.00	0.76	1.02	1.02	0.35	0.00
Delay/Veh:	0.0	0.0	0.0	105.7	0.0	41.8	0.0	21.0	59.0	82.6	2.9	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	105.7	0.0	41.8	0.0	21.0	59.0	82.6	2.9	0.0
LOS by Move:	A	A	A	F	A	D	A	C	E	F	A	A
HCM2kAvgQ:	0	0	0	14	0	5	0	20	41	24	5	0

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.866  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 32.7  
 Optimal Cycle: 77 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18								
Lanes:	0	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	2	0	1

Volume Module:

Base Vol:	626	0	750	0	0	0	243	1439	0	0	865	191
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	626	0	750	0	0	0	243	1439	0	0	865	191
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	659	0	789	0	0	0	256	1515	0	0	911	201
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	659	0	789	0	0	0	256	1515	0	0	911	201
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	659	0	789	0	0	0	256	1515	0	0	911	201

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1800	0	1900	0	0	0	1800	3800	0	0	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.37	0.00	0.42	0.00	0.00	0.00	0.14	0.40	0.00	0.00	0.24	0.11
Crit Moves:	****						****			****		
Green Time:	48.0	0.0	48.0	0.0	0.0	0.0	17.1	46.0	0.0	0.0	28.9	28.9
Volume/Cap:	0.76	0.00	0.87	0.00	0.00	0.00	0.83	0.87	0.00	0.00	0.83	0.37
Delay/Veh:	25.4	0.0	31.9	0.0	0.0	0.0	56.9	29.1	0.0	0.0	38.7	28.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.4	0.0	31.9	0.0	0.0	0.0	56.9	29.1	0.0	0.0	38.7	28.7
LOS by Move:	C	A	C	A	A	A	E	C	A	A	D	C
HCM2kAvgQ:	19	0	24	0	0	0	11	24	0	0	16	5

Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.158  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 109.7  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	2	0	1	0	1	0	2	0	1	0

Volume Module:

Base Vol:	613	1059	64	321	772	64	11	1001	455	4	155	107
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	613	1059	64	321	772	64	11	1001	455	4	155	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	645	1115	67	338	813	67	12	1054	479	4	163	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	645	1115	67	338	813	67	12	1054	479	4	163	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	645	1115	67	338	813	67	12	1054	479	4	163	113

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	1900	1900	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.36	0.29	0.04	0.19	0.43	0.04	0.01	0.28	0.25	0.00	0.04	0.06
Crit Moves:	****			****			****			****		
Green Time:	24.6	32.9	32.9	21.1	29.4	29.4	10.0	28.0	28.0	10.0	28.0	28.0
Volume/Cap:	1.46	0.89	0.11	0.89	1.46	0.12	0.06	0.99	0.90	0.02	0.15	0.21
Delay/Veh:	255.1	40.1	23.4	60.4	250	26.0	40.9	61.0	52.9	40.6	27.2	27.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	255.1	40.1	23.4	60.4	250	26.0	40.9	61.0	52.9	40.6	27.2	27.8
LOS by Move:	F	D	C	E	F	C	D	E	D	D	C	C
HCM2kAvgQ:	48	20	1	14	57	2	0	22	18	0	2	3

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.340  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 141.0  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	1	2176	9	0	1474	0	0	11	1	8	15	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	2176	9	0	1474	0	0	11	1	8	15	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	1	2291	9	0	1552	0	0	12	1	8	16	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	2291	9	0	1552	0	0	12	1	8	16	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	1	2291	9	0	1552	0	0	12	1	8	16	1

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Lanes:	0.01	0.99	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.35	0.65	1.00
Final Sat.:	1	1799	1900	0	1900	0	0	1800	1900	626	1174	1900

Capacity Analysis Module:

Vol/Sat:	1.27	1.27	0.00	0.00	0.82	0.00	0.00	0.01	0.00	0.01	0.01	0.00
Crit Moves:	****									****		
Green Time:	86.0	86.0	86.0	0.0	86.0	0.0	0.0	10.0	10.0	10.0	10.0	10.0
Volume/Cap:	1.48	1.48	0.01	0.00	0.95	0.00	0.00	0.06	0.01	0.13	0.13	0.01
Delay/Veh:	226.7	227	1.0	0.0	17.7	0.0	0.0	40.9	40.5	41.4	41.4	40.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	226.7	227	1.0	0.0	17.7	0.0	0.0	40.9	40.5	41.4	41.4	40.5
LOS by Move:	F	F	A	A	B	A	A	D	D	D	D	D
HCM2kAvgQ:	168	168	0	0	43	0	0	0	0	1	1	0

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

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Upper Santa Ana River Wash  
Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
P.M. Peak Hour

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Scenario Report

Scenario: 2030 Alt 1A PM  
Command: 2030 Alt 1A PM  
Volume: 2030 Alt 1A PM  
Geometry: Alternative A  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Paths  
Routes: Default Routes  
Configuration: 2030

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.420  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 175.0  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	196	974	1596	61	325	67	76	783	276	290	534	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	196	974	1596	61	325	67	76	783	276	290	534	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	206	1025	1680	64	342	71	80	824	291	305	562	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	206	1025	1680	64	342	71	80	824	291	305	562	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	206	1025	1680	64	342	71	80	824	291	305	562	132

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.11	0.27	0.88	0.04	0.09	0.04	0.04	0.22	0.15	0.17	0.15	0.07
Crit Moves:			****	****				****		****		
Green Time:	17.1	46.0	46.0	10.0	38.9	38.9	10.0	26.0	26.0	10.0	26.0	26.0
Volume/Cap:	0.67	0.59	1.92	0.36	0.23	0.10	0.44	0.83	0.59	1.70	0.57	0.27
Delay/Veh:	44.4	20.5	446.2	43.2	20.6	19.5	44.1	41.2	34.2	380.9	32.9	29.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.4	20.5	446.2	43.2	20.6	19.5	44.1	41.2	34.2	380.9	32.9	29.7
LOS by Move:	D	C	F	D	C	B	D	D	C	F	C	C
HCM2kAvgQ:	7	12	149	2	3	1	3	15	8	28	8	3

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.869  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 167.7  
 Optimal Cycle: 86 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	25	25	10	25	25	10	25	25	10	25	25
Lanes:	1	0	2	0	1	0	1	0	1	0	1	0

Volume Module:

Base Vol:	463	1870	4	1	609	281	880	1	456	6	4	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	463	1870	4	1	609	281	880	1	456	6	4	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	487	1968	4	1	641	296	926	1	0	6	4	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	487	1968	4	1	641	296	926	1	0	6	4	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	487	1968	4	1	641	296	926	1	0	6	4	17

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	3400	1900	1900	1800	1900	1900

Capacity Analysis Module:

Vol/Sat:	0.27	0.52	0.00	0.00	0.17	0.16	0.27	0.00	0.00	0.00	0.00	0.01
Crit Moves:	****			****			****			****		
Green Time:	22.4	37.4	37.4	10.0	25.0	25.0	19.6	31.9	0.0	12.8	25.0	25.0
Volume/Cap:	1.21	1.39	0.01	0.01	0.67	0.62	1.39	0.00	0.00	0.03	0.01	0.04
Delay/Veh:	154.9	210	19.7	40.5	35.8	35.9	223.4	23.2	0.0	38.2	28.2	28.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	154.9	210	19.7	40.5	35.8	35.9	223.4	23.2	0.0	38.2	28.2	28.4
LOS by Move:	F	F	B	D	D	D	F	C	A	D	C	C
HCM2kAvgQ:	30	65	0	0	10	9	35	0	0	0	0	0

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Average Delay (sec/veh): 1.7 Worst Case Level Of Service: F[253.3]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	2318	0	7	1064	0	0	0	0	3	0	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2318	0	7	1064	0	0	0	0	3	0	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	2440	0	7	1120	0	0	0	0	3	0	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	2440	0	7	1120	0	0	0	0	3	0	20

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxx	xxxx	xxxxx	2440	xxxx	xxxxx	xxxx	xxxx	xxxxx	3575	xxxx	2440
Potent Cap.:	xxxx	xxxx	xxxxx	196	xxxx	xxxxx	xxxx	xxxx	xxxxx	6	xxxx	41
Move Cap.:	xxxx	xxxx	xxxxx	196	xxxx	xxxxx	xxxx	xxxx	xxxxx	6	xxxx	41
Volume/Cap:	xxxx	xxxx	xxxx	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	0.51	xxxx	0.49

Level of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.9	xxxx	1.7
Control Del:	xxxxx	xxxx	xxxxx	24.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	852.1	xxxx	158.7
LOS by Move:	*	*	*	C	*	*	*	*	*	F	*	F
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			253.3		
ApproachLOS:	*			*			*			F		

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #4 Alabama St/Cemex Acc.

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Average Delay (sec/veh): 4.0 Worst Case Level Of Service: F[361.1]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	2288	1	20	1047	0	0	0	0	6	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2288	1	20	1047	0	0	0	0	6	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	2408	1	21	1102	0	0	0	0	6	0	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	2408	1	21	1102	0	0	0	0	6	0	32

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxx	xxxx	xxxxx	2409	xxxx	xxxxx	xxxx	xxxx	xxxxx	3553	xxxx	2408
Potent Cap.:	xxxx	xxxx	xxxxx	201	xxxx	xxxxx	xxxx	xxxx	xxxxx	7	xxxx	43
Move Cap.:	xxxx	xxxx	xxxxx	201	xxxx	xxxxx	xxxx	xxxx	xxxxx	6	xxxx	43
Volume/Cap:	xxxx	xxxx	xxxx	0.10	xxxx	xxxx	xxxx	xxxx	xxxx	1.04	xxxx	0.74

Level of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.6	xxxx	2.8
Control Del:	xxxxx	xxxx	xxxxx	25.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	1128	xxxx	207.8
LOS by Move:	*	*	*	C	*	*	*	*	*	F	*	F
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			361.1		
ApproachLOS:	*			*			*			F		

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #5 Church St/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.705  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 23.9  
 Optimal Cycle: 61 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	17	17	10	17	17
Lanes:	0	0	0	1	0	0	1	0	2	0	0	2

Volume Module:

Base Vol:	0	0	0	89	0	59	165	2276	0	0	891	193
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	89	0	59	165	2276	0	0	891	193
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	94	0	62	174	2396	0	0	938	203
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	94	0	62	174	2396	0	0	938	203
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	94	0	62	174	2396	0	0	938	203

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1800	0	1900	1800	3800	0	0	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.05	0.00	0.03	0.10	0.63	0.00	0.00	0.25	0.11
Crit Moves:						****		****		****		
Green Time:	0.0	0.0	0.0	28.0	0.0	28.0	19.0	66.0	0.0	0.0	47.0	47.0
Volume/Cap:	0.00	0.00	0.00	0.19	0.00	0.12	0.51	0.96	0.00	0.00	0.53	0.23
Delay/Veh:	0.0	0.0	0.0	27.5	0.0	26.9	37.5	25.3	0.0	0.0	19.0	15.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	27.5	0.0	26.9	37.5	25.3	0.0	0.0	19.0	15.9
LOS by Move:	A	A	A	C	A	C	D	C	A	A	B	B
HCM2kAvgQ:	0	0	0	2	0	1	6	40	0	0	10	4

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #6 Truck Access Road/5th St

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Average Delay (sec/veh): 0.0 Worst Case Level Of Service: A[ 0.0]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Ignore			Include			Include			Include		
Lanes:	0	0	1	0	0	0	0	2	0	0	2	1

Volume Module:

Base Vol:	0	0	30	0	0	0	0	2365	0	0	1084	53
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	30	0	0	0	0	2365	0	0	1084	53
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	0	0	0	0	2489	0	0	1141	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	0	0	0	0	2489	0	0	1141	56

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.024  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 37.9  
 Optimal Cycle: 180 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	1	0	2

Volume Module:

Base Vol:	0	0	0	248	0	135	0	1434	961	488	1003	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	248	0	135	0	1434	961	488	1003	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	261	0	142	0	1509	1012	514	1056	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	261	0	142	0	1509	1012	514	1056	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	261	0	142	0	1509	1012	514	1056	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1800	0	1900	0	3800	1900	1800	3800	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.15	0.00	0.07	0.00	0.40	0.53	0.29	0.28	0.00
Crit Moves:				****					****	****		
Green Time:	0.0	0.0	0.0	14.2	0.0	14.2	0.0	52.0	52.0	27.9	79.8	0.0
Volume/Cap:	0.00	0.00	0.00	1.02	0.00	0.53	0.00	0.76	1.02	1.02	0.35	0.00
Delay/Veh:	0.0	0.0	0.0	105.7	0.0	41.8	0.0	21.0	59.0	82.6	2.9	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	105.7	0.0	41.8	0.0	21.0	59.0	82.6	2.9	0.0
LOS by Move:	A	A	A	F	A	D	A	C	E	F	A	A
HCM2kAvgQ:	0	0	0	14	0	5	0	20	41	24	5	0

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.866  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 32.7  
 Optimal Cycle: 77 Level Of Service: C

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18								
Lanes:	0	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	2	0	1

Volume Module:

Base Vol:	626	0	750	0	0	0	243	1439	0	0	865	191
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	626	0	750	0	0	0	243	1439	0	0	865	191
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	659	0	789	0	0	0	256	1515	0	0	911	201
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	659	0	789	0	0	0	256	1515	0	0	911	201
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	659	0	789	0	0	0	256	1515	0	0	911	201

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1800	0	1900	0	0	0	1800	3800	0	0	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.37	0.00	0.42	0.00	0.00	0.00	0.14	0.40	0.00	0.00	0.24	0.11
Crit Moves:			****					****			****	
Green Time:	48.0	0.0	48.0	0.0	0.0	0.0	17.1	46.0	0.0	0.0	28.9	28.9
Volume/Cap:	0.76	0.00	0.87	0.00	0.00	0.00	0.83	0.87	0.00	0.00	0.83	0.37
Delay/Veh:	25.4	0.0	31.9	0.0	0.0	0.0	56.9	29.1	0.0	0.0	38.7	28.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.4	0.0	31.9	0.0	0.0	0.0	56.9	29.1	0.0	0.0	38.7	28.7
LOS by Move:	C	A	C	A	A	A	E	C	A	A	D	C
HCM2kAvgQ:	19	0	24	0	0	0	11	24	0	0	16	5

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.158  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 109.7  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	613	1059	64	321	772	64	11	1001	455	4	155	107
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	613	1059	64	321	772	64	11	1001	455	4	155	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	645	1115	67	338	813	67	12	1054	479	4	163	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	645	1115	67	338	813	67	12	1054	479	4	163	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	645	1115	67	338	813	67	12	1054	479	4	163	113

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	1900	1900	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.36	0.29	0.04	0.19	0.43	0.04	0.01	0.28	0.25	0.00	0.04	0.06
Crit Moves:	****			****			****			****		
Green Time:	24.6	32.9	32.9	21.1	29.4	29.4	10.0	28.0	28.0	10.0	28.0	28.0
Volume/Cap:	1.46	0.89	0.11	0.89	1.46	0.12	0.06	0.99	0.90	0.02	0.15	0.21
Delay/Veh:	255.1	40.1	23.4	60.4	250	26.0	40.9	61.0	52.9	40.6	27.2	27.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	255.1	40.1	23.4	60.4	250	26.0	40.9	61.0	52.9	40.6	27.2	27.8
LOS by Move:	F	D	C	E	F	C	D	E	D	D	C	C
HCM2kAvgQ:	48	20	1	14	57	2	0	22	18	0	2	3

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.340  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 141.0  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	1	2176	9	0	1474	0	0	11	1	8	15	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	2176	9	0	1474	0	0	11	1	8	15	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	1	2291	9	0	1552	0	0	12	1	8	16	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	2291	9	0	1552	0	0	12	1	8	16	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	1	2291	9	0	1552	0	0	12	1	8	16	1

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Lanes:	0.01	0.99	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.35	0.65	1.00
Final Sat.:	1	1799	1900	0	1900	0	0	1800	1900	626	1174	1900

Capacity Analysis Module:

Vol/Sat:	1.27	1.27	0.00	0.00	0.82	0.00	0.00	0.01	0.00	0.01	0.01	0.00
Crit Moves:	****									****		
Green Time:	86.0	86.0	86.0	0.0	86.0	0.0	0.0	10.0	10.0	10.0	10.0	10.0
Volume/Cap:	1.48	1.48	0.01	0.00	0.95	0.00	0.00	0.06	0.01	0.13	0.13	0.01
Delay/Veh:	226.7	227	1.0	0.0	17.7	0.0	0.0	40.9	40.5	41.4	41.4	40.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	226.7	227	1.0	0.0	17.7	0.0	0.0	40.9	40.5	41.4	41.4	40.5
LOS by Move:	F	F	A	A	B	A	A	D	D	D	D	D
HCM2kAvgQ:	168	168	0	0	43	0	0	0	0	1	1	0

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
A.M. Peak Hour

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Scenario Report

Scenario: 2030 Alt 1B AM  
Command: 2030 Alt 1B AM  
Volume: 2030 Alt 1B AM  
Geometry: Alternative B  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Paths  
Routes: Default Routes  
Configuration: 2030

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.240  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 220.4  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	86	134	40	102	893	120	22	314	224	1230	995	74
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	86	134	40	102	893	120	22	314	224	1230	995	74
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	91	141	42	107	940	126	23	331	236	1295	1047	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	141	42	107	940	126	23	331	236	1295	1047	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	91	141	42	107	940	126	23	331	236	1295	1047	78

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.05	0.04	0.02	0.06	0.25	0.07	0.01	0.09	0.12	0.72	0.28	0.04
Crit Moves:	****			****			****			****		
Green Time:	10.0	26.0	26.0	10.0	26.0	26.0	14.9	26.0	26.0	30.0	41.1	41.1
Volume/Cap:	0.50	0.14	0.09	0.60	0.95	0.26	0.09	0.33	0.48	2.40	0.67	0.10
Delay/Veh:	44.9	28.5	28.1	48.4	54.4	29.6	36.8	30.2	32.0	669.6	25.1	18.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.9	28.5	28.1	48.4	54.4	29.6	36.8	30.2	32.0	669.6	25.1	18.1
LOS by Move:	D	C	C	D	D	C	D	C	C	F	C	B
HCM2kAvgQ:	3	2	1	4	19	3	1	4	6	139	14	1

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.812  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 70.9  
 Optimal Cycle: 78 Level Of Service: E  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	25	25	10	25	25	10	25	25	10	25	25
Lanes:	1	0	2	0	1	1	2	0	1	0	1	1

Volume Module:

Base Vol:	295	123	355	26	1696	625	97	181	343	8	1	40
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	295	123	355	26	1696	625	97	181	343	8	1	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	311	129	374	27	1785	658	102	191	0	8	1	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	311	129	374	27	1785	658	102	191	0	8	1	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	311	129	374	27	1785	658	102	191	0	8	1	42

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	3400	1900	1900	1800	1900	1900

Capacity Analysis Module:

Vol/Sat:	0.17	0.03	0.20	0.02	0.47	0.35	0.03	0.10	0.00	0.00	0.00	0.02
Crit Moves:	****			****			****			****		
Green Time:	15.3	40.7	40.7	16.3	41.7	41.7	10.0	25.0	0.0	10.0	25.0	25.0
Volume/Cap:	1.13	0.08	0.48	0.09	1.13	0.83	0.30	0.40	0.00	0.05	0.00	0.09
Delay/Veh:	135.1	18.2	22.4	35.7	95.0	33.4	42.3	31.8	0.0	40.8	28.1	28.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	135.1	18.2	22.4	35.7	95.0	33.4	42.3	31.8	0.0	40.8	28.1	28.8
LOS by Move:	F	B	C	D	F	C	D	C	A	D	C	C
HCM2kAvgQ:	18	1	9	1	43	20	2	5	0	0	0	1

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Average Delay (sec/veh): 1.5 Worst Case Level Of Service: E[ 41.4]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	1	0	0	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	687	3	56	1993	0	0	0	0	7	0	86
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	687	3	56	1993	0	0	0	0	7	0	86
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	723	3	59	2098	0	0	0	0	7	0	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	723	3	59	2098	0	0	0	0	7	0	91

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxx	xxxx	xxxxx	726	xxxx	xxxxx	xxxx	xxxx	xxxxx	2939	xxxx	723
Potent Cap.:	xxxx	xxxx	xxxxx	886	xxxx	xxxxx	xxxx	xxxx	xxxxx	17	xxxx	429
Move Cap.:	xxxx	xxxx	xxxxx	886	xxxx	xxxxx	xxxx	xxxx	xxxxx	16	xxxx	429
Volume/Cap:	xxxx	xxxx	xxxx	0.07	xxxx	xxxx	xxxx	xxxx	xxxx	0.46	xxxx	0.21

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.2	xxxx	0.8
Control Del:	xxxxx	xxxx	xxxxx	9.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	358.5	xxxx	15.6
LOS by Move:	*	*	*	A	*	*	*	*	*	F	*	C
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			41.4		
ApproachLOS:	*			*			*			E		

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #4 Alabama St/Cemex Acc.

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Average Delay (sec/veh): 1.7 Worst Case Level Of Service: D[ 31.4]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	588	7	136	1864	0	0	0	0	6	0	102
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	588	7	136	1864	0	0	0	0	6	0	102
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	619	7	143	1962	0	0	0	0	6	0	107
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	619	7	143	1962	0	0	0	0	6	0	107

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxx	xxxx	xxxxx	626	xxxx	xxxxx	xxxx	xxxx	xxxxx	2867	xxxx	619
Potent Cap.:	xxxx	xxxx	xxxxx	965	xxxx	xxxxx	xxxx	xxxx	xxxxx	19	xxxx	492
Move Cap.:	xxxx	xxxx	xxxxx	965	xxxx	xxxxx	xxxx	xxxx	xxxxx	17	xxxx	492
Volume/Cap:	xxxx	xxxx	xxxx	0.15	xxxx	xxxx	xxxx	xxxx	xxxx	0.38	xxxx	0.22

Level of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	0.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.0	xxxx	0.8
Control Del:	xxxxx	xxxx	xxxxx	9.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	321.6	xxxx	14.3
LOS by Move:	*	*	*	A	*	*	*	*	*	F	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			31.4		
ApproachLOS:	*			*			*			D		

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #5 Church St/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.759  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 38.9  
 Optimal Cycle: 61 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	10	28	28	10	17	17	10	17	17
Lanes:	0	0	0	1	0	0	1	0	2	0	0	2

Volume Module:

Base Vol:	0	0	520	191	0	225	25	430	0	0	2074	76
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	520	191	0	225	25	430	0	0	2074	76
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	201	0	237	26	453	0	0	2183	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	201	0	237	26	453	0	0	2183	80
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	201	0	237	26	453	0	0	2183	80

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	1.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	1900	1800	0	1900	1800	3800	0	0	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.11	0.00	0.12	0.01	0.12	0.00	0.00	0.57	0.04
Crit Moves:						****	****			****		
Green Time:	0.0	0.0	0.0	28.0	0.0	28.0	10.0	66.0	0.0	0.0	56.0	56.0
Volume/Cap:	0.00	0.00	0.00	0.40	0.00	0.45	0.15	0.18	0.00	0.00	1.03	0.08
Delay/Veh:	0.0	0.0	0.0	29.7	0.0	30.2	41.5	6.6	0.0	0.0	48.4	10.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	29.7	0.0	30.2	41.5	6.6	0.0	0.0	48.4	10.1
LOS by Move:	A	A	A	C	A	C	D	A	A	A	D	B
HCM2kAvgQ:	0	0	0	5	0	6	1	3	0	0	44	1

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.218  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 76.1  
 Optimal Cycle: 180 Level Of Service: E  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	1	0	2

Volume Module:

Base Vol:	0	0	0	269	0	449	0	312	829	747	1701	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	269	0	449	0	312	829	747	1701	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	283	0	473	0	328	873	786	1791	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	283	0	473	0	328	873	786	1791	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	283	0	473	0	328	873	786	1791	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1800	0	1900	0	3800	1900	1800	3800	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.25	0.00	0.09	0.46	0.44	0.47	0.00
Crit Moves:						****			****	****		
Green Time:	0.0	0.0	0.0	20.4	0.0	20.4	0.0	37.7	37.7	35.9	73.6	0.0
Volume/Cap:	0.00	0.00	0.00	0.77	0.00	1.22	0.00	0.23	1.22	1.22	0.64	0.00
Delay/Veh:	0.0	0.0	0.0	47.2	0.0	159.2	0.0	21.3	141.7	143.8	7.1	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	47.2	0.0	159.2	0.0	21.3	141.7	143.8	7.1	0.0
LOS by Move:	A	A	A	D	A	F	A	C	F	F	A	A
HCM2kAvgQ:	0	0	0	11	0	28	0	3	48	46	14	0

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.090  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 74.6  
 Optimal Cycle: 180 Level Of Service: E

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18
Lanes:	0	1	0	0	0	0	1	0	2	0	0	2

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Volume Module:

Base Vol:	897	0	416	0	0	0	121	460	0	0	1551	277
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	897	0	416	0	0	0	121	460	0	0	1551	277
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	944	0	438	0	0	0	127	484	0	0	1633	292
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	944	0	438	0	0	0	127	484	0	0	1633	292
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	944	0	438	0	0	0	127	484	0	0	1633	292

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Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1800	0	1900	0	0	0	1800	3800	0	0	3800	1900

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Capacity Analysis Module:

Vol/Sat:	0.52	0.00	0.23	0.00	0.00	0.00	0.07	0.13	0.00	0.00	0.43	0.15
Crit Moves:	****						****			****		
Green Time:	46.2	0.0	46.2	0.0	0.0	0.0	10.0	47.8	0.0	0.0	37.8	37.8
Volume/Cap:	1.14	0.00	0.50	0.00	0.00	0.00	0.71	0.27	0.00	0.00	1.14	0.41
Delay/Veh:	102.7	0.0	19.3	0.0	0.0	0.0	55.8	15.7	0.0	0.0	101	23.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	102.7	0.0	19.3	0.0	0.0	0.0	55.8	15.7	0.0	0.0	101	23.2
LOS by Move:	F	A	B	A	A	A	E	B	A	A	F	C
HCM2kAvgQ:	49	0	9	0	0	0	6	4	0	0	41	7

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.047  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 80.3  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	2	0	1	0	1	0	2	0	1	0

Volume Module:

Base Vol:	250	220	49	207	687	11	3	450	322	441	1246	76
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	250	220	49	207	687	11	3	450	322	441	1246	76
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	263	232	52	218	723	12	3	474	339	464	1312	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	263	232	52	218	723	12	3	474	339	464	1312	80
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	263	232	52	218	723	12	3	474	339	464	1312	80

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	1900	1900	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.15	0.06	0.03	0.12	0.38	0.01	0.00	0.12	0.18	0.26	0.35	0.04
Crit Moves:	****			****			****			****		
Green Time:	11.9	30.0	30.0	13.0	31.0	31.0	11.0	28.0	28.0	21.0	38.0	38.0
Volume/Cap:	1.23	0.20	0.09	0.93	1.23	0.02	0.02	0.45	0.64	1.23	0.91	0.11
Delay/Veh:	179.9	26.2	25.3	83.9	151	23.9	39.7	29.9	34.1	162.5	38.0	20.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	179.9	26.2	25.3	83.9	151	23.9	39.7	29.9	34.1	162.5	38.0	20.1
LOS by Move:	F	C	C	F	F	C	D	C	C	F	D	C
HCM2kAvgQ:	18	3	1	11	41	0	0	6	10	29	23	2

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.149  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 74.3  
 Optimal Cycle: 180 Level Of Service: E  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	0	678	21	11	1762	0	0	88	0	43	70	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	678	21	11	1762	0	0	88	0	43	70	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	714	22	12	1855	0	0	93	0	45	74	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	714	22	12	1855	0	0	93	0	45	74	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	714	22	12	1855	0	0	93	0	45	74	9

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Lanes:	0.00	1.00	1.00	0.01	0.99	0.00	0.00	1.00	1.00	0.38	0.62	1.00
Final Sat.:	0	1800	1900	11	1789	0	0	1800	1900	685	1115	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.40	0.01	1.04	1.04	0.00	0.00	0.05	0.00	0.07	0.07	0.00
Crit Moves:	****						****					
Green Time:	0.0	86.0	86.0	86.0	86.0	0.0	0.0	10.0	0.0	10.0	10.0	10.0
Volume/Cap:	0.00	0.46	0.01	1.21	1.21	0.00	0.00	0.51	0.00	0.66	0.66	0.05
Delay/Veh:	0.0	1.8	1.0	105.9	106	0.0	0.0	45.2	0.0	52.2	52.2	40.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.8	1.0	105.9	106	0.0	0.0	45.2	0.0	52.2	52.2	40.8
LOS by Move:	A	A	A	F	F	A	A	D	A	D	D	D
HCM2kAvgQ:	0	6	0	102	102	0	0	4	0	5	5	0

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
P.M. Peak Hour

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Scenario Report

Scenario: 2030 Alt 1B PM  
Command: 2030 Alt 1B PM  
Volume: 2030 Alt 1B PM  
Geometry: Alternative B  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Paths  
Routes: Default Routes  
Configuration: 2030

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.619  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 37.9  
 Optimal Cycle: 80 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	196	974	156	61	325	67	76	783	276	343	534	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	196	974	156	61	325	67	76	783	276	343	534	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	206	1025	164	64	342	71	80	824	291	361	562	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	206	1025	164	64	342	71	80	824	291	361	562	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	206	1025	164	64	342	71	80	824	291	361	562	132

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.11	0.27	0.09	0.04	0.09	0.04	0.04	0.22	0.15	0.20	0.15	0.07
Crit Moves:	****					****		****		****		
Green Time:	14.2	29.3	29.3	10.9	26.0	26.0	14.4	26.9	26.9	24.9	37.4	37.4
Volume/Cap:	0.81	0.92	0.29	0.33	0.35	0.14	0.31	0.81	0.57	0.81	0.40	0.19
Delay/Veh:	58.5	46.2	27.6	42.2	30.3	28.6	39.0	38.9	33.1	45.6	23.2	21.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	58.5	46.2	27.6	42.2	30.3	28.6	39.0	38.9	33.1	45.6	23.2	21.2
LOS by Move:	E	D	C	D	C	C	D	D	C	D	C	C
HCM2kAvgQ:	9	19	4	2	4	2	3	14	8	13	6	3

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.765  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 75.5  
 Optimal Cycle: 78 Level Of Service: E  
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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	25	25	10	25	25	10	25	25	10	25	25
Lanes:	1	0	2	0	1	1	2	0	1	0	1	1

Volume Module:

Base Vol:	463	887	1017	1	662	281	423	458	456	6	4	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	463	887	1017	1	662	281	423	458	456	6	4	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	487	934	1071	1	697	296	445	482	0	6	4	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	487	934	1071	1	697	296	445	482	0	6	4	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	487	934	1071	1	697	296	445	482	0	6	4	17

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	3400	1900	1900	1800	1900	1900

Capacity Analysis Module:

Vol/Sat:	0.27	0.25	0.56	0.00	0.18	0.16	0.13	0.25	0.00	0.00	0.00	0.01
Crit Moves:			****	****			****					****
Green Time:	29.2	46.3	46.3	10.0	27.0	27.0	10.7	25.6	0.0	10.1	25.0	25.0
Volume/Cap:	0.93	0.53	1.22	0.01	0.68	0.58	1.22	0.99	0.00	0.03	0.01	0.04
Delay/Veh:	56.8	19.5	135.4	40.5	34.5	33.2	165.2	75.0	0.0	40.6	28.2	28.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.8	19.5	135.4	40.5	34.5	33.2	165.2	75.0	0.0	40.6	28.2	28.4
LOS by Move:	E	B	F	D	C	C	F	E	A	D	C	C
HCM2kAvgQ:	20	10	58	0	11	8	16	21	0	0	0	0

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Average Delay (sec/veh): 4.2 Worst Case Level Of Service: F[352.3]

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Approach:	North Bound			South Bound			East Bound			West Bound												
Movement:	L	T	R	L	T	R	L	T	R	L	T	R										
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign												
Rights:	Include			Include			Include			Include												
Lanes:	0	0	1	0	1		1	0	1	0	0		0	0	0	0	0	1	0	0	0	1

Volume Module:

Base Vol:	0	2333	0	52	1072	0	0	0	0	3	0	34
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2333	0	52	1072	0	0	0	0	3	0	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	2456	0	55	1128	0	0	0	0	3	0	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	2456	0	55	1128	0	0	0	0	3	0	36

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	2456	xxxx	xxxxx	xxxx	xxxx	xxxxx	3694	xxxx	2456
Potent Cap.:	xxxx	xxxx	xxxxx	193	xxxx	xxxxx	xxxx	xxxx	xxxxx	5	xxxx	40
Move Cap.:	xxxx	xxxx	xxxxx	193	xxxx	xxxxx	xxxx	xxxx	xxxxx	4	xxxx	40
Volume/Cap:	xxxx	xxxx	xxxx	0.28	xxxx	xxxx	xxxx	xxxx	xxxx	0.76	xxxx	0.90

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	1.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.0	xxxx	3.4
Control Del:	xxxxx	xxxx	xxxxx	30.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	1359	xxxx	263.5
LOS by Move:	*	*	*	D	*	*	*	*	*	F	*	F
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			352.3		
ApproachLOS:	*			*			*			F		

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #4 Alabama St/Cemex Acc.

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Average Delay (sec/veh): 6.6 Worst Case Level Of Service: F[425.0]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	1	0	0

Volume Module:

Base Vol:	0	2288	1	28	1047	0	0	0	0	6	0	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2288	1	28	1047	0	0	0	0	6	0	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	2408	1	29	1102	0	0	0	0	6	0	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	2408	1	29	1102	0	0	0	0	6	0	47

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	2409	xxxx	xxxxx	xxxx	xxxx	xxxxx	3569	xxxx	2408
Potent Cap.:	xxxx	xxxx	xxxxx	201	xxxx	xxxxx	xxxx	xxxx	xxxxx	6	xxxx	43
Move Cap.:	xxxx	xxxx	xxxxx	201	xxxx	xxxxx	xxxx	xxxx	xxxxx	6	xxxx	43
Volume/Cap:	xxxx	xxxx	xxxx	0.15	xxxx	xxxx	xxxx	xxxx	xxxx	1.10	xxxx	1.11

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.6	xxxx	4.5
Control Del:	xxxxx	xxxx	xxxxx	26.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	1214	xxxx	319.9
LOS by Move:	*	*	*	D	*	*	*	*	*	F	*	F
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			425.0		
ApproachLOS:	*			*			*			F		

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #5 Church St/5th St

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Cycle (sec):           100                           Critical Vol./Cap.(X):           0.416  
 Loss Time (sec):       6 (Y+R=4.0 sec)   Average Delay (sec/veh):       16.3  
 Optimal Cycle:         61                        Level Of Service:                B

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	10	28	28	10	17	17	10	17	17
Lanes:	0	0	0	1	0	0	1	0	2	0	0	2

Volume Module:

Base Vol:	0	0	1470	89	0	59	165	836	0	0	944	193
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	1470	89	0	59	165	836	0	0	944	193
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	94	0	62	174	880	0	0	994	203
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	94	0	62	174	880	0	0	994	203
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	94	0	62	174	880	0	0	994	203

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	1.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	1900	1800	0	1900	1800	3800	0	0	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.05	0.00	0.03	0.10	0.23	0.00	0.00	0.26	0.11
Crit Moves:						****	****				****	
Green Time:	0.0	0.0	0.0	28.0	0.0	28.0	17.8	66.0	0.0	0.0	48.2	48.2
Volume/Cap:	0.00	0.00	0.00	0.19	0.00	0.12	0.54	0.35	0.00	0.00	0.54	0.22
Delay/Veh:	0.0	0.0	0.0	27.5	0.0	26.9	39.3	7.6	0.0	0.0	18.5	15.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	27.5	0.0	26.9	39.3	7.6	0.0	0.0	18.5	15.1
LOS by Move:	A	A	A	C	A	C	D	A	A	A	B	B
HCM2kAvgQ:	0	0	0	2	0	1	6	6	0	0	11	4

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.024  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 37.9  
 Optimal Cycle: 180 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	1	0	2

Volume Module:

Base Vol:	0	0	0	248	0	135	0	1434	961	488	1003	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	248	0	135	0	1434	961	488	1003	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	261	0	142	0	1509	1012	514	1056	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	261	0	142	0	1509	1012	514	1056	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	261	0	142	0	1509	1012	514	1056	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1800	0	1900	0	3800	1900	1800	3800	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.15	0.00	0.07	0.00	0.40	0.53	0.29	0.28	0.00
Crit Moves:				****					****	****		
Green Time:	0.0	0.0	0.0	14.2	0.0	14.2	0.0	52.0	52.0	27.9	79.8	0.0
Volume/Cap:	0.00	0.00	0.00	1.02	0.00	0.53	0.00	0.76	1.02	1.02	0.35	0.00
Delay/Veh:	0.0	0.0	0.0	105.7	0.0	41.8	0.0	21.0	59.0	82.6	2.9	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	105.7	0.0	41.8	0.0	21.0	59.0	82.6	2.9	0.0
LOS by Move:	A	A	A	F	A	D	A	C	E	F	A	A
HCM2kAvgQ:	0	0	0	14	0	5	0	20	41	24	5	0

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.866  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 32.7  
 Optimal Cycle: 77 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18
Lanes:	0	1	0	0	0	0	1	0	2	0	0	2

Volume Module:

Base Vol:	626	0	750	0	0	0	243	1439	0	0	865	191
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	626	0	750	0	0	0	243	1439	0	0	865	191
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	659	0	789	0	0	0	256	1515	0	0	911	201
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	659	0	789	0	0	0	256	1515	0	0	911	201
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	659	0	789	0	0	0	256	1515	0	0	911	201

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1800	0	1900	0	0	0	1800	3800	0	0	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.37	0.00	0.42	0.00	0.00	0.00	0.14	0.40	0.00	0.00	0.24	0.11
Crit Moves:			****					****			****	
Green Time:	48.0	0.0	48.0	0.0	0.0	0.0	17.1	46.0	0.0	0.0	28.9	28.9
Volume/Cap:	0.76	0.00	0.87	0.00	0.00	0.00	0.83	0.87	0.00	0.00	0.83	0.37
Delay/Veh:	25.4	0.0	31.9	0.0	0.0	0.0	56.9	29.1	0.0	0.0	38.7	28.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.4	0.0	31.9	0.0	0.0	0.0	56.9	29.1	0.0	0.0	38.7	28.7
LOS by Move:	C	A	C	A	A	A	E	C	A	A	D	C
HCM2kAvgQ:	19	0	24	0	0	0	11	24	0	0	16	5

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.158  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 109.7  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	613	1059	64	321	772	64	11	1001	455	4	155	107
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	613	1059	64	321	772	64	11	1001	455	4	155	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	645	1115	67	338	813	67	12	1054	479	4	163	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	645	1115	67	338	813	67	12	1054	479	4	163	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	645	1115	67	338	813	67	12	1054	479	4	163	113

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	1900	1900	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.36	0.29	0.04	0.19	0.43	0.04	0.01	0.28	0.25	0.00	0.04	0.06
Crit Moves:	****			****			****			****		
Green Time:	24.6	32.9	32.9	21.1	29.4	29.4	10.0	28.0	28.0	10.0	28.0	28.0
Volume/Cap:	1.46	0.89	0.11	0.89	1.46	0.12	0.06	0.99	0.90	0.02	0.15	0.21
Delay/Veh:	255.1	40.1	23.4	60.4	250	26.0	40.9	61.0	52.9	40.6	27.2	27.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	255.1	40.1	23.4	60.4	250	26.0	40.9	61.0	52.9	40.6	27.2	27.8
LOS by Move:	F	D	C	E	F	C	D	E	D	D	C	C
HCM2kAvgQ:	48	20	1	14	57	2	0	22	18	0	2	3

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.340  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 141.0  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	0	1	0	0	1

Volume Module:

Base Vol:	1	2176	9	0	1474	0	0	11	1	8	15	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	2176	9	0	1474	0	0	11	1	8	15	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	1	2291	9	0	1552	0	0	12	1	8	16	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	2291	9	0	1552	0	0	12	1	8	16	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	1	2291	9	0	1552	0	0	12	1	8	16	1

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Lanes:	0.01	0.99	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.35	0.65	1.00
Final Sat.:	1	1799	1900	0	1900	0	0	1800	1900	626	1174	1900

Capacity Analysis Module:

Vol/Sat:	1.27	1.27	0.00	0.00	0.82	0.00	0.00	0.01	0.00	0.01	0.01	0.00
Crit Moves:	****									****		
Green Time:	86.0	86.0	86.0	0.0	86.0	0.0	0.0	10.0	10.0	10.0	10.0	10.0
Volume/Cap:	1.48	1.48	0.01	0.00	0.95	0.00	0.00	0.06	0.01	0.13	0.13	0.01
Delay/Veh:	226.7	227	1.0	0.0	17.7	0.0	0.0	40.9	40.5	41.4	41.4	40.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	226.7	227	1.0	0.0	17.7	0.0	0.0	40.9	40.5	41.4	41.4	40.5
LOS by Move:	F	F	A	A	B	A	A	D	D	D	D	D
HCM2kAvgQ:	168	168	0	0	43	0	0	0	0	1	1	0

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
A.M. Peak Hour

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Scenario Report

Scenario: 2030 Alt 1D AM  
Command: 2030 Alt 1D AM  
Volume: 2030 Alt 1D AM  
Geometry: Alternative D  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Paths  
Routes: Default Routes  
Configuration: 2030

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.185  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 190.1  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	86	134	40	102	893	120	22	314	224	1143	995	74
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	86	134	40	102	893	120	22	314	224	1143	995	74
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	91	141	42	107	940	126	23	331	236	1203	1047	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	141	42	107	940	126	23	331	236	1203	1047	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	91	141	42	107	940	126	23	331	236	1203	1047	78

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.05	0.04	0.02	0.06	0.25	0.07	0.01	0.09	0.12	0.67	0.28	0.04
Crit Moves:	****			****			****			****		
Green Time:	10.0	26.0	26.0	10.0	26.0	26.0	14.9	26.0	26.0	30.0	41.1	41.1
Volume/Cap:	0.50	0.14	0.09	0.60	0.95	0.26	0.09	0.33	0.48	2.23	0.67	0.10
Delay/Veh:	44.9	28.5	28.1	48.4	54.4	29.6	36.8	30.2	32.0	593.6	25.1	18.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.9	28.5	28.1	48.4	54.4	29.6	36.8	30.2	32.0	593.6	25.1	18.1
LOS by Move:	D	C	C	D	D	C	D	C	C	F	C	B
HCM2kAvgQ:	3	2	1	4	19	3	1	4	6	125	14	1

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.786  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 62.2  
 Optimal Cycle: 78 Level Of Service: E  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	25	25	10	25	25	10	25	25	10	25	25
Lanes:	1	0	2	0	1	1	2	0	1	0	1	1

Volume Module:

Base Vol:	295	123	285	26	1609	625	97	181	343	8	1	40
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	295	123	285	26	1609	625	97	181	343	8	1	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	311	129	300	27	1694	658	102	191	0	8	1	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	311	129	300	27	1694	658	102	191	0	8	1	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	311	129	300	27	1694	658	102	191	0	8	1	42

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	3400	1900	1900	1800	1900	1900

Capacity Analysis Module:

Vol/Sat:	0.17	0.03	0.16	0.02	0.45	0.35	0.03	0.10	0.00	0.00	0.00	0.02
Crit Moves:	****			****			****			****		
Green Time:	15.9	40.7	40.7	16.3	41.1	41.1	10.0	25.0	0.0	10.0	25.0	25.0
Volume/Cap:	1.08	0.08	0.39	0.09	1.08	0.84	0.30	0.40	0.00	0.05	0.00	0.09
Delay/Veh:	119.7	18.2	21.2	35.7	78.9	34.8	42.3	31.8	0.0	40.8	28.1	28.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	119.7	18.2	21.2	35.7	78.9	34.8	42.3	31.8	0.0	40.8	28.1	28.8
LOS by Move:	F	B	C	D	E	C	D	C	A	D	C	C
HCM2kAvgQ:	17	1	6	1	39	21	2	5	0	0	0	1

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Average Delay (sec/veh): 1.0 Worst Case Level Of Service: E[ 45.3]

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Approach:	North Bound			South Bound			East Bound			West Bound												
Movement:	L	T	R	L	T	R	L	T	R	L	T	R										
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign												
Rights:	Include			Include			Include			Include												
Lanes:	0	0	1	0	1		1	0	1	0	0		0	0	0	0	0	1	0	0	0	1

Volume Module:

Base Vol:	0	656	3	26	1936	0	0	0	0	0	7	0	47
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	656	3	26	1936	0	0	0	0	0	7	0	47
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	691	3	27	2038	0	0	0	0	0	7	0	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	691	3	27	2038	0	0	0	0	0	7	0	49

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxxx	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxxx	xxxx	xxxxxx	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxxx	694	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	2783	xxxx	691
Potent Cap.:	xxxx	xxxx	xxxxxx	911	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	21	xxxx	448
Move Cap.:	xxxx	xxxx	xxxxxx	911	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	21	xxxx	448
Volume/Cap:	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.36	xxxx	0.11

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxxx	0.1	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1.0	xxxx	0.4
Control Del:	xxxxxx	xxxx	xxxxxx	9.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	255.3	xxxx	14.0
LOS by Move:	*	*	*	A	*	*	*	*	*	F	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			45.3		
ApproachLOS:	*			*			*			E		

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #4 Alabama St/Cemex Acc.

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Average Delay (sec/veh): 1.2 Worst Case Level Of Service: D[ 31.3]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	1	0	0

Volume Module:

Base Vol:	0	588	7	79	1864	0	0	0	0	6	0	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	588	7	79	1864	0	0	0	0	6	0	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	619	7	83	1962	0	0	0	0	6	0	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	619	7	83	1962	0	0	0	0	6	0	75

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	626	xxxx	xxxxx	xxxx	xxxx	xxxxx	2747	xxxx	619
Potent Cap.:	xxxx	xxxx	xxxxx	965	xxxx	xxxxx	xxxx	xxxx	xxxxx	22	xxxx	492
Move Cap.:	xxxx	xxxx	xxxxx	965	xxxx	xxxxx	xxxx	xxxx	xxxxx	21	xxxx	492
Volume/Cap:	xxxx	xxxx	xxxx	0.09	xxxx	xxxx	xxxx	xxxx	xxxx	0.30	xxxx	0.15

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.9	xxxx	0.5
Control Del:	xxxxx	xxxx	xxxxx	9.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	240.1	xxxx	13.6
LOS by Move:	*	*	*	A	*	*	*	*	*	F	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			31.3		
ApproachLOS:	*			*			*			D		

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #5 Church St/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.734  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 31.0  
 Optimal Cycle: 61 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	17	17	10	17	17
Lanes:	0	0	0	1	0	0	1	0	2	0	0	2

Volume Module:

Base Vol:	0	0	450	191	0	225	25	430	0	0	1987	76
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	450	191	0	225	25	430	0	0	1987	76
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	201	0	237	26	453	0	0	2092	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	201	0	237	26	453	0	0	2092	80
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	201	0	237	26	453	0	0	2092	80

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	1.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	1900	1800	0	1900	1800	3800	0	0	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.11	0.00	0.12	0.01	0.12	0.00	0.00	0.55	0.04
Crit Moves:						****	****			****		
Green Time:	0.0	0.0	0.0	28.0	0.0	28.0	10.0	66.0	0.0	0.0	56.0	56.0
Volume/Cap:	0.00	0.00	0.00	0.40	0.00	0.45	0.15	0.18	0.00	0.00	0.98	0.08
Delay/Veh:	0.0	0.0	0.0	29.7	0.0	30.2	41.5	6.6	0.0	0.0	37.1	10.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	29.7	0.0	30.2	41.5	6.6	0.0	0.0	37.1	10.1
LOS by Move:	A	A	A	C	A	C	D	A	A	A	D	B
HCM2kAvgQ:	0	0	0	5	0	6	1	3	0	0	39	1

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #6 Truck Access Road/5th St

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Average Delay (sec/veh): 0.0 Worst Case Level Of Service: A[ 0.0]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Ignore			Include			Include			Include		
Lanes:	0	0	1	0	0	0	0	2	0	0	2	1

Volume Module:

Base Vol:	0	0	70	0	0	0	0	1071	0	0	2063	87
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	70	0	0	0	0	1071	0	0	2063	87
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	0	0	0	0	1127	0	0	2172	92
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	0	0	0	0	1127	0	0	2172	92

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.218  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 76.1  
 Optimal Cycle: 180 Level Of Service: E  
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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	1	0	2

Volume Module:

Base Vol:	0	0	0	269	0	449	0	312	829	747	1701	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	269	0	449	0	312	829	747	1701	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	283	0	473	0	328	873	786	1791	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	283	0	473	0	328	873	786	1791	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	283	0	473	0	328	873	786	1791	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1800	0	1900	0	3800	1900	1800	3800	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.25	0.00	0.09	0.46	0.44	0.47	0.00
Crit Moves:						****			****	****		
Green Time:	0.0	0.0	0.0	20.4	0.0	20.4	0.0	37.7	37.7	35.9	73.6	0.0
Volume/Cap:	0.00	0.00	0.00	0.77	0.00	1.22	0.00	0.23	1.22	1.22	0.64	0.00
Delay/Veh:	0.0	0.0	0.0	47.2	0.0	159.2	0.0	21.3	141.7	143.8	7.1	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	47.2	0.0	159.2	0.0	21.3	141.7	143.8	7.1	0.0
LOS by Move:	A	A	A	D	A	F	A	C	F	F	A	A
HCM2kAvgQ:	0	0	0	11	0	28	0	3	48	46	14	0

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 1.090  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 74.6  
 Optimal Cycle: 180 Level Of Service: E  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18								
Lanes:	0	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	2	0	1

Volume Module:

Base Vol:	897	0	416	0	0	0	121	460	0	0	1551	277
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	897	0	416	0	0	0	121	460	0	0	1551	277
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	944	0	438	0	0	0	127	484	0	0	1633	292
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	944	0	438	0	0	0	127	484	0	0	1633	292
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	944	0	438	0	0	0	127	484	0	0	1633	292

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1800	0	1900	0	0	0	1800	3800	0	0	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.52	0.00	0.23	0.00	0.00	0.00	0.07	0.13	0.00	0.00	0.43	0.15
Crit Moves:	****						****			****		
Green Time:	46.2	0.0	46.2	0.0	0.0	0.0	10.0	47.8	0.0	0.0	37.8	37.8
Volume/Cap:	1.14	0.00	0.50	0.00	0.00	0.00	0.71	0.27	0.00	0.00	1.14	0.41
Delay/Veh:	102.7	0.0	19.3	0.0	0.0	0.0	55.8	15.7	0.0	0.0	101	23.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	102.7	0.0	19.3	0.0	0.0	0.0	55.8	15.7	0.0	0.0	101	23.2
LOS by Move:	F	A	B	A	A	A	E	B	A	A	F	C
HCM2kAvgQ:	49	0	9	0	0	0	6	4	0	0	41	7

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.047  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 80.3  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	250	220	49	207	687	11	3	450	322	441	1246	76
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	250	220	49	207	687	11	3	450	322	441	1246	76
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	263	232	52	218	723	12	3	474	339	464	1312	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	263	232	52	218	723	12	3	474	339	464	1312	80
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	263	232	52	218	723	12	3	474	339	464	1312	80

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	1900	1900	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.15	0.06	0.03	0.12	0.38	0.01	0.00	0.12	0.18	0.26	0.35	0.04
Crit Moves:	****			****			****			****		
Green Time:	11.9	30.0	30.0	13.0	31.0	31.0	11.0	28.0	28.0	21.0	38.0	38.0
Volume/Cap:	1.23	0.20	0.09	0.93	1.23	0.02	0.02	0.45	0.64	1.23	0.91	0.11
Delay/Veh:	179.9	26.2	25.3	83.9	151	23.9	39.7	29.9	34.1	162.5	38.0	20.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	179.9	26.2	25.3	83.9	151	23.9	39.7	29.9	34.1	162.5	38.0	20.1
LOS by Move:	F	C	C	F	F	C	D	C	C	F	D	C
HCM2kAvgQ:	18	3	1	11	41	0	0	6	10	29	23	2

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.149  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 74.3  
 Optimal Cycle: 180 Level Of Service: E

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	0	678	21	11	1762	0	0	88	0	43	70	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	678	21	11	1762	0	0	88	0	43	70	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	714	22	12	1855	0	0	93	0	45	74	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	714	22	12	1855	0	0	93	0	45	74	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	714	22	12	1855	0	0	93	0	45	74	9

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Lanes:	0.00	1.00	1.00	0.01	0.99	0.00	0.00	1.00	1.00	0.38	0.62	1.00
Final Sat.:	0	1800	1900	11	1789	0	0	1800	1900	685	1115	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.40	0.01	1.04	1.04	0.00	0.00	0.05	0.00	0.07	0.07	0.00
Crit Moves:	****						****					
Green Time:	0.0	86.0	86.0	86.0	86.0	0.0	0.0	10.0	0.0	10.0	10.0	10.0
Volume/Cap:	0.00	0.46	0.01	1.21	1.21	0.00	0.00	0.51	0.00	0.66	0.66	0.05
Delay/Veh:	0.0	1.8	1.0	105.9	106	0.0	0.0	45.2	0.0	52.2	52.2	40.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.8	1.0	105.9	106	0.0	0.0	45.2	0.0	52.2	52.2	40.8
LOS by Move:	A	A	A	F	F	A	A	D	A	D	D	D
HCM2kAvgQ:	0	6	0	102	102	0	0	4	0	5	5	0

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

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Upper Santa Ana River Wash  
Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
P.M. Peak Hour

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Scenario Report

Scenario: 2030 Alt 1D PM  
Command: 2030 Alt 1D PM  
Volume: 2030 Alt 1D PM  
Geometry: Alternative D  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Paths  
Routes: Default Routes  
Configuration: 2030

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.585  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 36.0  
 Optimal Cycle: 80 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	196	974	156	61	325	67	76	783	276	290	534	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	196	974	156	61	325	67	76	783	276	290	534	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	206	1025	164	64	342	71	80	824	291	305	562	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	206	1025	164	64	342	71	80	824	291	305	562	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	206	1025	164	64	342	71	80	824	291	305	562	132

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.11	0.27	0.09	0.04	0.09	0.04	0.04	0.22	0.15	0.17	0.15	0.07
Crit Moves:	****			****			****			****		
Green Time:	15.1	30.0	30.0	11.1	26.0	26.0	14.1	28.6	28.6	22.3	36.8	36.8
Volume/Cap:	0.76	0.90	0.29	0.32	0.35	0.14	0.31	0.76	0.54	0.76	0.40	0.19
Delay/Veh:	52.5	43.4	27.1	41.9	30.3	28.6	39.3	35.7	31.2	44.5	23.7	21.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.5	43.4	27.1	41.9	30.3	28.6	39.3	35.7	31.2	44.5	23.7	21.6
LOS by Move:	D	D	C	D	C	C	D	D	C	D	C	C
HCM2kAvgQ:	8	19	4	2	4	2	3	13	8	11	6	3

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

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Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.753  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 72.8  
 Optimal Cycle: 78 Level Of Service: E

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	25	25	10	25	25	10	25	25	10	25	25
Lanes:	1	0	2	0	1	1	2	0	1	0	1	0

Volume Module:

Base Vol:	463	887	997	1	609	281	423	458	456	6	4	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	463	887	997	1	609	281	423	458	456	6	4	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	487	934	1049	1	641	296	445	482	0	6	4	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	487	934	1049	1	641	296	445	482	0	6	4	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	487	934	1049	1	641	296	445	482	0	6	4	17

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	3400	1900	1900	1800	1900	1900

Capacity Analysis Module:

Vol/Sat:	0.27	0.25	0.55	0.00	0.17	0.16	0.13	0.25	0.00	0.00	0.00	0.01
Crit Moves:			****	****			****					****
Green Time:	29.2	46.1	46.1	10.0	26.9	26.9	10.9	25.8	0.0	10.2	25.0	25.0
Volume/Cap:	0.93	0.53	1.20	0.01	0.63	0.58	1.20	0.98	0.00	0.03	0.01	0.04
Delay/Veh:	57.4	19.6	127.5	40.5	33.4	33.3	157.2	73.5	0.0	40.6	28.2	28.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	57.4	19.6	127.5	40.5	33.4	33.3	157.2	73.5	0.0	40.6	28.2	28.4
LOS by Move:	E	B	F	D	C	C	F	E	A	D	C	C
HCM2kAvgQ:	20	10	56	0	9	8	16	21	0	0	0	0

Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Average Delay (sec/veh): 2.2 Worst Case Level Of Service: F[264.8]

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Approach:	North Bound			South Bound			East Bound			West Bound												
Movement:	L	T	R	L	T	R	L	T	R	L	T	R										
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign												
Rights:	Include			Include			Include			Include												
Lanes:	0	0	1	0	1		1	0	1	0	0		0	0	0	0	0	1	0	0	0	1

Volume Module:

Base Vol:	0	2322	0	7	1064	0	0	0	0	0	3	0	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2322	0	7	1064	0	0	0	0	0	3	0	25
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	2444	0	7	1120	0	0	0	0	0	3	0	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	2444	0	7	1120	0	0	0	0	0	3	0	26

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	2444	xxxx	xxxxx	xxxx	xxxx	xxxxx	3579	xxxx	2444
Potent Cap.:	xxxx	xxxx	xxxxx	195	xxxx	xxxxx	xxxx	xxxx	xxxxx	6	xxxx	41
Move Cap.:	xxxx	xxxx	xxxxx	195	xxxx	xxxxx	xxxx	xxxx	xxxxx	6	xxxx	41
Volume/Cap:	xxxx	xxxx	xxxx	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	0.51	xxxx	0.65

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.9	xxxx	2.4
Control Del:	xxxxx	xxxx	xxxxx	24.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	858.7	xxxx	193.5
LOS by Move:	*	*	*	C	*	*	*	*	*	F	*	F
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			264.8		
ApproachLOS:	*			*			*			F		

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #4 Alabama St/Cemex Acc.

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Average Delay (sec/veh): 4.5 Worst Case Level Of Service: F[368.4]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	2288	1	20	1047	0	0	0	0	6	0	34
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2288	1	20	1047	0	0	0	0	6	0	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	2408	1	21	1102	0	0	0	0	6	0	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	2408	1	21	1102	0	0	0	0	6	0	36

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxx	xxxx	xxxxx	2409	xxxx	xxxxx	xxxx	xxxx	xxxxx	3553	xxxx	2408
Potent Cap.:	xxxx	xxxx	xxxxx	201	xxxx	xxxxx	xxxx	xxxx	xxxxx	7	xxxx	43
Move Cap.:	xxxx	xxxx	xxxxx	201	xxxx	xxxxx	xxxx	xxxx	xxxxx	6	xxxx	43
Volume/Cap:	xxxx	xxxx	xxxx	0.10	xxxx	xxxx	xxxx	xxxx	xxxx	1.04	xxxx	0.84

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.6	xxxx	3.3
Control Del:	xxxxx	xxxx	xxxxx	25.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	1128	xxxx	234.4
LOS by Move:	*	*	*	C	*	*	*	*	*	F	*	F
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			368.4		
ApproachLOS:	*			*			*			F		

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #5 Church St/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.400  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 16.2  
 Optimal Cycle: 61 Level Of Service: B  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ignore			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	17	17	10	17	17
Lanes:	0	0	1	1	0	1	1	0	0	0	0	1

Volume Module:

Base Vol:	0	0	1450	89	0	59	165	836	0	0	891	193
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	1450	89	0	59	165	836	0	0	891	193
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	94	0	62	174	880	0	0	938	203
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	94	0	62	174	880	0	0	938	203
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	94	0	62	174	880	0	0	938	203

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	1.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	1900	1800	0	1900	1800	3800	0	0	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.05	0.00	0.03	0.10	0.23	0.00	0.00	0.25	0.11
Crit Moves:						****	****				****	
Green Time:	0.0	0.0	0.0	28.0	0.0	28.0	18.6	66.0	0.0	0.0	47.4	47.4
Volume/Cap:	0.00	0.00	0.00	0.19	0.00	0.12	0.52	0.35	0.00	0.00	0.52	0.23
Delay/Veh:	0.0	0.0	0.0	27.5	0.0	26.9	38.2	7.6	0.0	0.0	18.6	15.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	27.5	0.0	26.9	38.2	7.6	0.0	0.0	18.6	15.6
LOS by Move:	A	A	A	C	A	C	D	A	A	A	B	B
HCM2kAvgQ:	0	0	0	2	0	1	6	6	0	0	10	4

Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #6 Truck Access Road/5th St

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Average Delay (sec/veh): 0.0 Worst Case Level Of Service: A[ 0.0]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Ignore			Include			Include			Include		
Lanes:	0	0	0	0	0	0	0	0	2	0	0	2

Volume Module:

Base Vol:	0	0	20	0	0	0	0	2375	0	0	1084	53
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	20	0	0	0	0	2375	0	0	1084	53
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	0	0	0	0	2500	0	0	1141	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	0	0	0	0	2500	0	0	1141	56

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.024  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 37.9  
 Optimal Cycle: 180 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	1	0	2

Volume Module:

Base Vol:	0	0	0	248	0	135	0	1434	961	488	1003	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	248	0	135	0	1434	961	488	1003	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	261	0	142	0	1509	1012	514	1056	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	261	0	142	0	1509	1012	514	1056	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	261	0	142	0	1509	1012	514	1056	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1800	0	1900	0	3800	1900	1800	3800	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.15	0.00	0.07	0.00	0.40	0.53	0.29	0.28	0.00
Crit Moves:				****					****	****		
Green Time:	0.0	0.0	0.0	14.2	0.0	14.2	0.0	52.0	52.0	27.9	79.8	0.0
Volume/Cap:	0.00	0.00	0.00	1.02	0.00	0.53	0.00	0.76	1.02	1.02	0.35	0.00
Delay/Veh:	0.0	0.0	0.0	105.7	0.0	41.8	0.0	21.0	59.0	82.6	2.9	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	105.7	0.0	41.8	0.0	21.0	59.0	82.6	2.9	0.0
LOS by Move:	A	A	A	F	A	D	A	C	E	F	A	A
HCM2kAvgQ:	0	0	0	14	0	5	0	20	41	24	5	0

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.866  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 32.7  
 Optimal Cycle: 77 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18
Lanes:	0	1	0	0	0	0	1	0	2	0	0	2

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Volume Module:

Base Vol:	626	0	750	0	0	0	244	1438	0	0	865	191
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	626	0	750	0	0	0	244	1438	0	0	865	191
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	659	0	789	0	0	0	257	1514	0	0	911	201
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	659	0	789	0	0	0	257	1514	0	0	911	201
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	659	0	789	0	0	0	257	1514	0	0	911	201

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Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1800	0	1900	0	0	0	1800	3800	0	0	3800	1900

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Capacity Analysis Module:

Vol/Sat:	0.37	0.00	0.42	0.00	0.00	0.00	0.14	0.40	0.00	0.00	0.24	0.11
Crit Moves:	****						****			****		
Green Time:	48.0	0.0	48.0	0.0	0.0	0.0	17.2	46.0	0.0	0.0	28.8	28.8
Volume/Cap:	0.76	0.00	0.87	0.00	0.00	0.00	0.83	0.87	0.00	0.00	0.83	0.37
Delay/Veh:	25.4	0.0	31.9	0.0	0.0	0.0	57.1	29.1	0.0	0.0	38.8	28.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.4	0.0	31.9	0.0	0.0	0.0	57.1	29.1	0.0	0.0	38.8	28.7
LOS by Move:	C	A	C	A	A	A	E	C	A	A	D	C
HCM2kAvgQ:	19	0	24	0	0	0	11	24	0	0	16	5

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.158  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 109.7  
 Optimal Cycle: 180 Level Of Service: F  
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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	613	1059	64	321	772	64	11	1000	455	4	155	107
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	613	1059	64	321	772	64	11	1000	455	4	155	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	645	1115	67	338	813	67	12	1053	479	4	163	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	645	1115	67	338	813	67	12	1053	479	4	163	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	645	1115	67	338	813	67	12	1053	479	4	163	113

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	1900	1900	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.36	0.29	0.04	0.19	0.43	0.04	0.01	0.28	0.25	0.00	0.04	0.06
Crit Moves:	****			****			****			****		
Green Time:	24.6	32.9	32.9	21.1	29.4	29.4	10.0	28.0	28.0	10.0	28.0	28.0
Volume/Cap:	1.46	0.89	0.11	0.89	1.46	0.12	0.06	0.99	0.90	0.02	0.15	0.21
Delay/Veh:	255.1	40.1	23.4	60.4	250	26.0	40.9	60.8	52.9	40.6	27.2	27.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	255.1	40.1	23.4	60.4	250	26.0	40.9	60.8	52.9	40.6	27.2	27.8
LOS by Move:	F	D	C	E	F	C	D	E	D	D	C	C
HCM2kAvgQ:	48	20	1	14	57	2	0	22	18	0	2	3

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.340  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 141.0  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	1	2176	9	0	1474	0	0	11	1	8	15	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	2176	9	0	1474	0	0	11	1	8	15	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	1	2291	9	0	1552	0	0	12	1	8	16	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	2291	9	0	1552	0	0	12	1	8	16	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	1	2291	9	0	1552	0	0	12	1	8	16	1

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Lanes:	0.01	0.99	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.35	0.65	1.00
Final Sat.:	1	1799	1900	0	1900	0	0	1800	1900	626	1174	1900

Capacity Analysis Module:

Vol/Sat:	1.27	1.27	0.00	0.00	0.82	0.00	0.00	0.01	0.00	0.01	0.01	0.00
Crit Moves:	****									****		
Green Time:	86.0	86.0	86.0	0.0	86.0	0.0	0.0	10.0	10.0	10.0	10.0	10.0
Volume/Cap:	1.48	1.48	0.01	0.00	0.95	0.00	0.00	0.06	0.01	0.13	0.13	0.01
Delay/Veh:	226.7	227	1.0	0.0	17.7	0.0	0.0	40.9	40.5	41.4	41.4	40.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	226.7	227	1.0	0.0	17.7	0.0	0.0	40.9	40.5	41.4	41.4	40.5
LOS by Move:	F	F	A	A	B	A	A	D	D	D	D	D
HCM2kAvgQ:	168	168	0	0	43	0	0	0	0	1	1	0

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
A.M. Peak Hour

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Scenario Report

Scenario: 2030 Alt 2 AM  
Command: 2030 Alt 2 AM  
Volume: 2030 Alt 2 AM  
Geometry: Alternative C  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Paths  
Routes: Default Routes  
Configuration: 2030

Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.256  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 191.5  
 Optimal Cycle: 180 Level Of Service: F

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	84	134	521	102	893	120	22	323	219	1173	1002	74
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	84	134	521	102	893	120	22	323	219	1173	1002	74
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	88	141	548	107	940	126	23	340	231	1235	1055	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	141	548	107	940	126	23	340	231	1235	1055	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	88	141	548	107	940	126	23	340	231	1235	1055	78

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.05	0.04	0.29	0.06	0.25	0.07	0.01	0.09	0.12	0.69	0.28	0.04
Crit Moves:			****	****					****	****		
Green Time:	10.0	26.0	26.0	10.0	26.0	26.0	14.8	26.0	26.0	30.0	41.2	41.2
Volume/Cap:	0.49	0.14	1.11	0.60	0.95	0.26	0.09	0.34	0.47	2.29	0.67	0.10
Delay/Veh:	44.7	28.5	111.1	48.4	54.4	29.6	36.9	30.3	31.9	619.8	25.1	18.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.7	28.5	111.1	48.4	54.4	29.6	36.9	30.3	31.9	619.8	25.1	18.1
LOS by Move:	D	C	F	D	D	C	D	C	C	F	C	B
HCM2kAvgQ:	3	2	28	4	19	3	1	4	6	130	14	1

Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.795  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 71.5  
 Optimal Cycle: 80 Level Of Service: E

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	2	0	1	0	1	1

Volume Module:

Base Vol:	295	426	11	26	1634	625	273	5	343	8	1	40
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	295	426	11	26	1634	625	273	5	343	8	1	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	311	448	12	27	1720	658	287	5	0	8	1	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	311	448	12	27	1720	658	287	5	0	8	1	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	311	448	12	27	1720	658	287	5	0	8	1	42

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	3400	1900	1900	1800	1900	1900

Capacity Analysis Module:

Vol/Sat:	0.17	0.12	0.01	0.02	0.45	0.35	0.08	0.00	0.00	0.00	0.00	0.02
Crit Moves:	****			****			****			****		
Green Time:	15.5	40.4	40.4	15.6	40.5	40.5	10.0	26.0	0.0	10.0	26.0	26.0
Volume/Cap:	1.12	0.29	0.02	0.10	1.12	0.85	0.85	0.01	0.00	0.05	0.00	0.09
Delay/Veh:	131.2	20.2	17.9	36.4	91.6	36.2	61.6	27.5	0.0	40.8	27.4	28.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	131.2	20.2	17.9	36.4	91.6	36.2	61.6	27.5	0.0	40.8	27.4	28.1
LOS by Move:	F	C	B	D	F	D	E	C	A	D	C	C
HCM2kAvgQ:	18	5	0	1	41	21	7	0	0	0	0	1

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Average Delay (sec/veh): 1.4 Worst Case Level Of Service: E[ 35.6]

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Approach:	North Bound			South Bound			East Bound			West Bound												
Movement:	L	T	R	L	T	R	L	T	R	L	T	R										
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign												
Rights:	Include			Include			Include			Include												
Lanes:	0	0	1	0	1		1	0	1	0	0		0	0	0	0	0	1	0	0	0	1

Volume Module:

Base Vol:	0	646	3	56	1931	0	0	0	0	7	0	86
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	646	3	56	1931	0	0	0	0	7	0	86
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	680	3	59	2033	0	0	0	0	7	0	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	680	3	59	2033	0	0	0	0	7	0	91

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	683	xxxx	xxxxx	xxxx	xxxx	xxxxx	2831	xxxx	680
Potent Cap.:	xxxx	xxxx	xxxxx	919	xxxx	xxxxx	xxxx	xxxx	xxxxx	20	xxxx	454
Move Cap.:	xxxx	xxxx	xxxxx	919	xxxx	xxxxx	xxxx	xxxx	xxxxx	19	xxxx	454
Volume/Cap:	xxxx	xxxx	xxxx	0.06	xxxx	xxxx	xxxx	xxxx	xxxx	0.39	xxxx	0.20

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.1	xxxx	0.7
Control Del:	xxxxx	xxxx	xxxxx	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	289.5	xxxx	14.9
LOS by Move:	*	*	*	A	*	*	*	*	*	F	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			35.6		
ApproachLOS:	*			*			*			E		

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #4 Alabama St/Cemex Acc.

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Average Delay (sec/veh): 1.1 Worst Case Level Of Service: D[ 33.2]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	0	0	1

Volume Module:

Base Vol:	0	588	7	74	1864	0	0	0	0	6	0	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	588	7	74	1864	0	0	0	0	6	0	61
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	619	7	78	1962	0	0	0	0	6	0	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	619	7	78	1962	0	0	0	0	6	0	64

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	626	xxxx	xxxxx	xxxx	xxxx	xxxxx	2737	xxxx	619
Potent Cap.:	xxxx	xxxx	xxxxx	965	xxxx	xxxxx	xxxx	xxxx	xxxxx	23	xxxx	492
Move Cap.:	xxxx	xxxx	xxxxx	965	xxxx	xxxxx	xxxx	xxxx	xxxxx	21	xxxx	492
Volume/Cap:	xxxx	xxxx	xxxx	0.08	xxxx	xxxx	xxxx	xxxx	xxxx	0.30	xxxx	0.13

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.9	xxxx	0.4
Control Del:	xxxxx	xxxx	xxxxx	9.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	234.2	xxxx	13.4
LOS by Move:	*	*	*	A	*	*	*	*	*	F	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			33.2		
ApproachLOS:	*			*			*			D		

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #5 Church St/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.745  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 30.7  
 Optimal Cycle: 61 Level Of Service: C  
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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	17	17	10	17	17
Lanes:	0	0	0	0	0	0	1	0	0	0	0	0

Volume Module:

Base Vol:	0	0	0	191	0	225	25	920	0	0	2024	76
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	191	0	225	25	920	0	0	2024	76
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	201	0	237	26	968	0	0	2131	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	201	0	237	26	968	0	0	2131	80
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	201	0	237	26	968	0	0	2131	80

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1800	0	1900	1800	3800	0	0	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.11	0.00	0.12	0.01	0.25	0.00	0.00	0.56	0.04
Crit Moves:						****	****			****		
Green Time:	0.0	0.0	0.0	28.0	0.0	28.0	10.0	66.0	0.0	0.0	56.0	56.0
Volume/Cap:	0.00	0.00	0.00	0.40	0.00	0.45	0.15	0.39	0.00	0.00	1.00	0.08
Delay/Veh:	0.0	0.0	0.0	29.7	0.0	30.2	41.5	7.9	0.0	0.0	41.8	10.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	29.7	0.0	30.2	41.5	7.9	0.0	0.0	41.8	10.1
LOS by Move:	A	A	A	C	A	C	D	A	A	A	D	B
HCM2kAvgQ:	0	0	0	5	0	6	1	7	0	0	41	1

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.230  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 79.7  
 Optimal Cycle: 180 Level Of Service: E  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	1	0	2

Volume Module:

Base Vol:	0	0	0	288	0	439	0	313	798	805	1661	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	288	0	439	0	313	798	805	1661	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	303	0	462	0	329	840	847	1748	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	303	0	462	0	329	840	847	1748	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	303	0	462	0	329	840	847	1748	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1800	0	1900	0	3800	1900	1800	3800	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.17	0.00	0.24	0.00	0.09	0.44	0.47	0.46	0.00
Crit Moves:						****			****	****		
Green Time:	0.0	0.0	0.0	19.8	0.0	19.8	0.0	35.9	35.9	38.3	74.2	0.0
Volume/Cap:	0.00	0.00	0.00	0.85	0.00	1.23	0.00	0.24	1.23	1.23	0.62	0.00
Delay/Veh:	0.0	0.0	0.0	56.2	0.0	164.8	0.0	22.6	148.0	146.8	6.6	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	56.2	0.0	164.8	0.0	22.6	148.0	146.8	6.6	0.0
LOS by Move:	A	A	A	E	A	F	A	C	F	F	A	A
HCM2kAvgQ:	0	0	0	12	0	28	0	4	47	50	13	0

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.075  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 70.0  
 Optimal Cycle: 180 Level Of Service: E

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18
Lanes:	0	1	0	0	0	0	1	0	2	0	0	2

Volume Module:

Base Vol:	850	0	490	0	0	0	113	488	0	0	1615	293
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	850	0	490	0	0	0	113	488	0	0	1615	293
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	895	0	516	0	0	0	119	514	0	0	1700	308
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	895	0	516	0	0	0	119	514	0	0	1700	308
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	895	0	516	0	0	0	119	514	0	0	1700	308

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1800	0	1900	0	0	0	1800	3800	0	0	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.50	0.00	0.27	0.00	0.00	0.00	0.07	0.14	0.00	0.00	0.45	0.16
Crit Moves:	****						****			****		
Green Time:	44.2	0.0	44.2	0.0	0.0	0.0	10.0	49.8	0.0	0.0	39.8	39.8
Volume/Cap:	1.12	0.00	0.61	0.00	0.00	0.00	0.66	0.27	0.00	0.00	1.12	0.41
Delay/Veh:	99.8	0.0	22.7	0.0	0.0	0.0	52.2	14.7	0.0	0.0	95.3	22.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	99.8	0.0	22.7	0.0	0.0	0.0	52.2	14.7	0.0	0.0	95.3	22.0
LOS by Move:	F	A	C	A	A	A	D	B	A	A	F	C
HCM2kAvgQ:	45	0	13	0	0	0	5	5	0	0	41	7

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.161  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 93.7  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	330	223	49	207	690	11	3	450	424	441	1246	76
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	330	223	49	207	690	11	3	450	424	441	1246	76
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	347	235	52	218	726	12	3	474	446	464	1312	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	347	235	52	218	726	12	3	474	446	464	1312	80
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	347	235	52	218	726	12	3	474	446	464	1312	80

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	1900	1900	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.19	0.06	0.03	0.12	0.38	0.01	0.00	0.12	0.23	0.26	0.35	0.04
Crit Moves:	****			****			****			****		
Green Time:	14.8	30.9	30.9	13.3	29.4	29.4	10.7	28.0	28.0	19.8	37.1	37.1
Volume/Cap:	1.30	0.20	0.09	0.91	1.30	0.02	0.02	0.45	0.84	1.30	0.93	0.11
Delay/Veh:	203.0	25.6	24.6	77.1	184	25.1	39.9	29.9	45.2	195.0	41.5	20.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	203.0	25.6	24.6	77.1	184	25.1	39.9	29.9	45.2	195.0	41.5	20.7
LOS by Move:	F	C	C	E	F	C	D	C	D	F	D	C
HCM2kAvgQ:	24	3	1	10	45	0	0	6	16	31	24	2

Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.196  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 96.0  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	0	678	24	115	1762	0	0	26	0	46	29	92
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	678	24	115	1762	0	0	26	0	46	29	92
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	714	25	121	1855	0	0	27	0	48	31	97
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	714	25	121	1855	0	0	27	0	48	31	97
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	714	25	121	1855	0	0	27	0	48	31	97

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Lanes:	0.00	1.00	1.00	0.06	0.94	0.00	0.00	1.00	1.00	0.61	0.39	1.00
Final Sat.:	0	1800	1900	110	1690	0	0	1800	1900	1104	696	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.40	0.01	1.10	1.10	0.00	0.00	0.02	0.00	0.04	0.04	0.05
Crit Moves:	****											
Green Time:	0.0	86.0	86.0	86.0	86.0	0.0	0.0	10.0	0.0	10.0	10.0	10.0
Volume/Cap:	0.00	0.46	0.02	1.28	1.28	0.00	0.00	0.15	0.00	0.44	0.44	0.51
Delay/Veh:	0.0	1.8	1.0	136.5	137	0.0	0.0	41.5	0.0	44.1	44.1	45.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.8	1.0	136.5	137	0.0	0.0	41.5	0.0	44.1	44.1	45.0
LOS by Move:	A	A	A	F	F	A	A	D	A	D	D	D
HCM2kAvgQ:	0	6	0	119	119	0	0	1	0	3	3	4

Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
P.M. Peak Hour

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Scenario Report

Scenario: 2030 Alt 2 PM  
Command: 2030 Alt 2 PM  
Volume: 2030 Alt 2 PM  
Geometry: Alternative C  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Paths  
Routes: Default Routes  
Configuration: 2030

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.458  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 187.2  
 Optimal Cycle: 180 Level Of Service: F  
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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	196	974	1611	61	325	67	76	785	275	335	535	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	196	974	1611	61	325	67	76	785	275	335	535	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	206	1025	1696	64	342	71	80	826	289	353	563	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	206	1025	1696	64	342	71	80	826	289	353	563	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	206	1025	1696	64	342	71	80	826	289	353	563	132

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.11	0.27	0.89	0.04	0.09	0.04	0.04	0.22	0.15	0.20	0.15	0.07
Crit Moves:			****	****				****		****		
Green Time:	17.1	45.9	45.9	10.0	38.8	38.8	10.0	26.0	26.0	10.1	26.1	26.1
Volume/Cap:	0.67	0.59	1.94	0.36	0.23	0.10	0.44	0.84	0.59	1.94	0.57	0.27
Delay/Veh:	44.4	20.6	455.9	43.2	20.7	19.5	44.1	41.3	34.1	489.1	32.9	29.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.4	20.6	455.9	43.2	20.7	19.5	44.1	41.3	34.1	489.1	32.9	29.7
LOS by Move:	D	C	F	D	C	B	D	D	C	F	C	C
HCM2kAvgQ:	7	12	152	2	3	1	3	15	8	35	8	3

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.874  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 180.2  
 Optimal Cycle: 88 Level Of Service: F  
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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	26	26	10	26	26	10	26	26	10	26	26
Lanes:	1	0	2	0	1	0	1	0	1	0	1	0

Volume Module:

Base Vol:	463	1885	4	1	653	281	880	1	456	6	4	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	463	1885	4	1	653	281	880	1	456	6	4	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	487	1984	4	1	687	296	926	1	0	6	4	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	487	1984	4	1	687	296	926	1	0	6	4	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	487	1984	4	1	687	296	926	1	0	6	4	17

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	3400	1900	1900	1800	1900	1900

Capacity Analysis Module:

Vol/Sat:	0.27	0.52	0.00	0.00	0.18	0.16	0.27	0.00	0.00	0.00	0.00	0.01
Crit Moves:	****			****			****			****		
Green Time:	20.8	36.8	36.8	10.0	26.0	26.0	19.2	32.6	0.0	12.6	26.0	26.0
Volume/Cap:	1.30	1.42	0.01	0.01	0.70	0.60	1.42	0.00	0.00	0.03	0.01	0.03
Delay/Veh:	193.7	224	20.0	40.5	35.6	34.5	237.8	22.7	0.0	38.4	27.4	27.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	193.7	224	20.0	40.5	35.6	34.5	237.8	22.7	0.0	38.4	27.4	27.7
LOS by Move:	F	F	C	D	D	C	F	C	A	D	C	C
HCM2kAvgQ:	33	67	0	0	11	9	36	0	0	0	0	0

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

\*\*\*\*\*

Average Delay (sec/veh): 4.1 Worst Case Level Of Service: F[337.8]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	2318	0	52	1063	0	0	0	0	3	0	34
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2318	0	52	1063	0	0	0	0	3	0	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	2440	0	55	1119	0	0	0	0	3	0	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	2440	0	55	1119	0	0	0	0	3	0	36

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	6.4	xxxxx	6.2
FollowUpTim:	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	3.5	xxxxx	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxxx	xxxxx	xxxxx	2440	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	3668	xxxxx	2440
Potent Cap.:	xxxxx	xxxxx	xxxxx	196	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	6	xxxxx	41
Move Cap.:	xxxxx	xxxxx	xxxxx	196	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	4	xxxxx	41
Volume/Cap:	xxxxx	xxxxx	xxxxx	0.28	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.73	xxxxx	0.88

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxxx	xxxxx	xxxxx	1.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1.0	xxxxx	3.4
Control Del:	xxxxx	xxxxx	xxxxx	30.4	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1294	xxxxx	253.5
LOS by Move:	*	*	*	D	*	*	*	*	*	F	*	F
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
SharedQueue:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shrd ConDel:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			337.8		
ApproachLOS:	*			*			*			F		

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #4 Alabama St/Cemex Acc.

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Average Delay (sec/veh): 4.0 Worst Case Level Of Service: F[359.4]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	1	0	0

Volume Module:

Base Vol:	0	2288	1	19	1047	0	0	0	0	6	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2288	1	19	1047	0	0	0	0	6	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	2408	1	20	1102	0	0	0	0	6	0	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	2408	1	20	1102	0	0	0	0	6	0	32

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	2409	xxxx	xxxxx	xxxx	xxxx	xxxxx	3551	xxxx	2408
Potent Cap.:	xxxx	xxxx	xxxxx	201	xxxx	xxxxx	xxxx	xxxx	xxxxx	7	xxxx	43
Move Cap.:	xxxx	xxxx	xxxxx	201	xxxx	xxxxx	xxxx	xxxx	xxxxx	6	xxxx	43
Volume/Cap:	xxxx	xxxx	xxxx	0.10	xxxx	xxxx	xxxx	xxxx	xxxx	1.03	xxxx	0.74

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.5	xxxx	2.8
Control Del:	xxxxx	xxxx	xxxxx	24.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	1117	xxxx	207.8
LOS by Move:	*	*	*	C	*	*	*	*	*	F	*	F
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			359.4		
ApproachLOS:	*			*			*			F		

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #5 Church St/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.710  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 24.5  
 Optimal Cycle: 61 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	17	17	10	17	17
Lanes:	0	0	0	0	0	0	1	0	0	0	0	0

Volume Module:

Base Vol:	0	0	0	89	0	59	165	2293	0	0	937	193
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	89	0	59	165	2293	0	0	937	193
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	94	0	62	174	2414	0	0	986	203
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	94	0	62	174	2414	0	0	986	203
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	94	0	62	174	2414	0	0	986	203

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1800	0	1900	1800	3800	0	0	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.05	0.00	0.03	0.10	0.64	0.00	0.00	0.26	0.11
Crit Moves:						****		****		****		
Green Time:	0.0	0.0	0.0	28.0	0.0	28.0	18.4	66.0	0.0	0.0	47.6	47.6
Volume/Cap:	0.00	0.00	0.00	0.19	0.00	0.12	0.53	0.96	0.00	0.00	0.54	0.22
Delay/Veh:	0.0	0.0	0.0	27.5	0.0	26.9	38.5	26.5	0.0	0.0	18.9	15.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	27.5	0.0	26.9	38.5	26.5	0.0	0.0	18.9	15.5
LOS by Move:	A	A	A	C	A	C	D	C	A	A	B	B
HCM2kAvgQ:	0	0	0	2	0	1	6	41	0	0	11	4

Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.030  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 39.0  
 Optimal Cycle: 180 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	1	0	2

Volume Module:

Base Vol:	0	0	0	251	0	134	0	1432	950	504	997	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	251	0	134	0	1432	950	504	997	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	264	0	141	0	1507	1000	531	1049	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	264	0	141	0	1507	1000	531	1049	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	264	0	141	0	1507	1000	531	1049	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1800	0	1900	0	3800	1900	1800	3800	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.15	0.00	0.07	0.00	0.40	0.53	0.29	0.28	0.00
Crit Moves:				****					****	****		
Green Time:	0.0	0.0	0.0	14.3	0.0	14.3	0.0	51.1	51.1	28.6	79.7	0.0
Volume/Cap:	0.00	0.00	0.00	1.03	0.00	0.52	0.00	0.78	1.03	1.03	0.35	0.00
Delay/Veh:	0.0	0.0	0.0	106.9	0.0	41.5	0.0	21.8	61.2	83.1	2.9	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	106.9	0.0	41.5	0.0	21.8	61.2	83.1	2.9	0.0
LOS by Move:	A	A	A	F	A	D	A	C	E	F	A	A
HCM2kAvgQ:	0	0	0	14	0	5	0	20	41	25	5	0

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.875  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 33.2  
 Optimal Cycle: 81 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18								
Lanes:	0	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	2	0	1

Volume Module:

Base Vol:	619	0	762	0	0	0	239	1444	0	0	882	196
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	619	0	762	0	0	0	239	1444	0	0	882	196
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	652	0	802	0	0	0	252	1520	0	0	928	206
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	652	0	802	0	0	0	252	1520	0	0	928	206
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	652	0	802	0	0	0	252	1520	0	0	928	206

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1800	0	1900	0	0	0	1800	3800	0	0	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.36	0.00	0.42	0.00	0.00	0.00	0.14	0.40	0.00	0.00	0.24	0.11
Crit Moves:	****						****			****		
Green Time:	48.3	0.0	48.3	0.0	0.0	0.0	16.6	45.7	0.0	0.0	29.1	29.1
Volume/Cap:	0.75	0.00	0.87	0.00	0.00	0.00	0.84	0.87	0.00	0.00	0.84	0.37
Delay/Veh:	24.6	0.0	32.5	0.0	0.0	0.0	59.0	29.8	0.0	0.0	39.1	28.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.6	0.0	32.5	0.0	0.0	0.0	59.0	29.8	0.0	0.0	39.1	28.6
LOS by Move:	C	A	C	A	A	A	E	C	A	A	D	C
HCM2kAvgQ:	18	0	25	0	0	0	11	24	0	0	16	5

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.174  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 114.3  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	2	0	1	0	1	0	2	0	1	0

Volume Module:

Base Vol:	636	1059	64	321	773	64	11	1001	472	4	155	107
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	636	1059	64	321	773	64	11	1001	472	4	155	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	669	1115	67	338	814	67	12	1054	497	4	163	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	669	1115	67	338	814	67	12	1054	497	4	163	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	669	1115	67	338	814	67	12	1054	497	4	163	113

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	1900	1900	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.37	0.29	0.04	0.19	0.43	0.04	0.01	0.28	0.26	0.00	0.04	0.06
Crit Moves:	****			****			****			****		
Green Time:	25.1	32.9	32.9	21.1	28.9	28.9	10.0	28.0	28.0	10.0	28.0	28.0
Volume/Cap:	1.48	0.89	0.11	0.89	1.48	0.12	0.06	0.99	0.93	0.02	0.15	0.21
Delay/Veh:	265.9	40.1	23.4	60.4	262	26.3	40.9	61.0	58.9	40.6	27.2	27.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	265.9	40.1	23.4	60.4	262	26.3	40.9	61.0	58.9	40.6	27.2	27.8
LOS by Move:	F	D	C	E	F	C	D	E	E	D	C	C
HCM2kAvgQ:	51	20	1	14	59	2	0	22	19	0	2	3

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.332  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 146.7  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	1	2176	10	17	1474	0	0	2	1	9	0	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	2176	10	17	1474	0	0	2	1	9	0	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	1	2291	11	18	1552	0	0	2	1	9	0	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	2291	11	18	1552	0	0	2	1	9	0	25
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	1	2291	11	18	1552	0	0	2	1	9	0	25

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Lanes:	0.01	0.99	1.00	0.01	0.99	0.00	0.00	1.00	1.00	1.00	0.00	1.00
Final Sat.:	1	1799	1900	21	1779	0	0	1800	1900	1800	0	1900

Capacity Analysis Module:

Vol/Sat:	1.27	1.27	0.01	0.87	0.87	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Crit Moves:	****									****		
Green Time:	86.0	86.0	86.0	86.0	86.0	0.0	0.0	10.0	10.0	10.0	0.0	10.0
Volume/Cap:	1.48	1.48	0.01	1.01	1.01	0.00	0.00	0.01	0.01	0.05	0.00	0.13
Delay/Veh:	226.7	227	1.0	33.4	33.4	0.0	0.0	40.6	40.5	40.8	0.0	41.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	226.7	227	1.0	33.4	33.4	0.0	0.0	40.6	40.5	40.8	0.0	41.4
LOS by Move:	F	F	A	C	C	A	A	D	D	D	A	D
HCM2kAvgQ:	168	168	0	62	62	0	0	0	0	0	0	1

Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
A.M. Peak Hour With Mitigations

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Scenario Report

Scenario:	2008 Alt 2 AM MIT
Command:	2008 Alt 2 AM
Volume:	2008 Alt 2 AM
Geometry:	Alternative C
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	2004/2008

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 Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.572  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 38.2  
 Optimal Cycle: 83 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	29	29	10	29	29
Lanes:	1	0	1	1	0	2	1	0	2	1	0	2

Volume Module:

Base Vol:	67	68	324	145	280	80	12	255	100	440	768	116
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	68	324	145	280	80	12	255	100	440	768	116
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	70	71	338	151	292	83	13	266	104	459	801	121
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	70	71	338	151	292	83	13	266	104	459	801	121
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	70	71	338	151	292	83	13	266	104	459	801	121

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	2.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	1800	3600	1700	3600	1800	1700	3600	1800	1700	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.04	0.04	0.09	0.09	0.08	0.05	0.01	0.07	0.06	0.27	0.22	0.07
Crit Moves:			****	****			****			****		
Green Time:	10.0	26.0	26.0	10.0	26.0	26.0	14.4	29.0	29.0	27.0	41.6	41.6
Volume/Cap:	0.41	0.15	0.36	0.89	0.31	0.18	0.05	0.25	0.20	1.00	0.53	0.16
Delay/Veh:	43.9	28.5	30.4	83.7	30.0	28.9	37.0	27.3	26.9	78.4	22.3	18.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.9	28.5	30.4	83.7	30.0	28.9	37.0	27.3	26.9	78.4	22.3	18.4
LOS by Move:	D	C	C	F	C	C	D	C	C	E	C	B
HCM2kAvgQ:	3	2	4	8	4	2	0	3	2	21	9	2

Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
P.M. Peak Hour With Mitigations

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Scenario Report

Scenario:	2008 Alt 2 PM MIT
Command:	2008 Alt 2 PM
Volume:	2008 Alt 2 PM
Geometry:	Alternative C
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	2004/2008

Upper Santa Ana River Wash  
 Opening Year (2008) Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour With Mitigations

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.633  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 30.0  
 Optimal Cycle: 83 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	26	26	10	26	26	10	29	29	10	29	29
Lanes:	1	0	1	1	0	2	1	0	2	1	0	2

Volume Module:

Base Vol:	45	449	845	88	138	37	58	486	68	191	396	163
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	449	845	88	138	37	58	486	68	191	396	163
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	49	485	914	95	149	40	63	525	74	206	428	176
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	485	914	95	149	40	63	525	74	206	428	176
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	49	485	914	95	149	40	63	525	74	206	428	176

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.04	1.96	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	1874	3526	1700	3600	1800	1700	3600	1800	1700	3600	1800

Capacity Analysis Module:

Vol/Sat:	0.03	0.26	0.26	0.06	0.04	0.02	0.04	0.15	0.04	0.12	0.12	0.10
Crit Moves:	****			****			****			****		
Green Time:	12.8	36.1	36.1	10.0	33.3	33.3	11.8	29.0	29.0	16.9	34.1	34.1
Volume/Cap:	0.22	0.72	0.72	0.56	0.12	0.07	0.31	0.50	0.14	0.72	0.35	0.29
Delay/Veh:	39.7	28.9	28.9	47.1	23.3	22.8	41.3	29.9	26.4	47.7	24.8	24.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.7	28.9	28.9	47.1	23.3	22.8	41.3	29.9	26.4	47.7	24.8	24.3
LOS by Move:	D	C	C	D	C	C	D	C	C	D	C	C
HCM2kAvgQ:	2	13	13	4	2	1	2	7	2	8	5	4

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

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Upper Santa Ana River Wash  
Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
A.M. Peak Hour With Mitigations

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Scenario Report

Scenario:	2030 Alt 1A AM MIT
Command:	2030 Alt 1A AM
Volume:	2030 Alt 1A AM
Geometry:	Alternative A
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	2030

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 A.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

\*\*\*\*\*

Cycle (sec): 130 Critical Vol./Cap.(X): 0.826  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 46.4  
 Optimal Cycle: 89 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	10	29	29	10	29	29	10	32	32	10	32	32
Lanes:	1	0	2	0	2	0	1	0	2	0	2	0

Volume Module:

Base Vol:	86	134	467	102	893	120	22	314	224	1143	995	74
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	86	134	467	102	893	120	22	314	224	1143	995	74
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	91	141	492	107	940	126	23	331	236	1203	1047	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	141	492	107	940	126	23	331	236	1203	1047	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	91	141	492	107	940	126	23	331	236	1203	1047	78

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00
Lanes:	1.00	2.00	2.00	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1800	3800	3601	1800	3800	1900	1800	3800	1900	3400	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.05	0.04	0.14	0.06	0.25	0.07	0.01	0.09	0.12	0.35	0.28	0.04
Crit Moves:	****			****					****	****		
Green Time:	10.0	31.9	79.0	11.0	32.9	32.9	17.3	32.0	32.0	47.1	61.8	61.8
Volume/Cap:	0.65	0.15	0.22	0.70	0.98	0.26	0.10	0.35	0.50	0.98	0.58	0.09
Delay/Veh:	69.0	38.5	11.6	71.9	71.6	39.1	49.7	40.7	43.1	61.2	25.2	18.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	69.0	38.5	11.6	71.9	71.6	39.1	49.7	40.7	43.1	61.2	25.2	18.7
LOS by Move:	E	D	B	E	E	D	D	D	D	E	C	B
HCM2kAvgQ:	5	2	5	6	24	4	1	5	8	32	15	2

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 A.M. Peak Hour With Mitigations

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.746  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 52.4  
 Optimal Cycle: 87 Level Of Service: D

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	28	28	10	28	28	10	31	31	10	31	31
Lanes:	1	0	3	0	1	1	3	0	1	0	1	1

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Volume Module:

Base Vol:	295	374	11	26	1609	625	273	5	343	8	1	40
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	295	374	11	26	1609	625	273	5	343	8	1	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	311	394	12	27	1694	658	287	5	0	8	1	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	311	394	12	27	1694	658	287	5	0	8	1	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	311	394	12	27	1694	658	287	5	0	8	1	42

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Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.84	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	2.00	1.00	3.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	5700	1900	1800	3800	1900	4800	1900	1900	1800	1900	1900

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Capacity Analysis Module:

Vol/Sat:	0.17	0.07	0.01	0.02	0.45	0.35	0.06	0.00	0.00	0.00	0.00	0.02
Crit Moves:	****			****			****			****		
Green Time:	22.6	59.7	59.7	21.3	58.4	58.4	10.0	31.0	0.0	10.0	31.0	31.0
Volume/Cap:	0.99	0.15	0.01	0.09	0.99	0.77	0.78	0.01	0.00	0.06	0.00	0.09
Delay/Veh:	102.2	20.5	19.1	46.3	55.5	34.5	69.0	37.8	0.0	55.8	37.7	38.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	102.2	20.5	19.1	46.3	55.5	34.5	69.0	37.8	0.0	55.8	37.7	38.6
LOS by Move:	F	C	B	D	E	C	E	D	A	E	D	D
HCM2kAvgQ:	18	3	0	1	40	23	6	0	0	0	0	1

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

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Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 A.M. Peak Hour With Mitigations

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.555  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 8.0  
 Optimal Cycle: 30 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	10	0	0	0	0	0	10	10	10
Lanes:	0	0	2	0	1	0	0	0	0	0	1	0

Volume Module:

Base Vol:	0	585	10	105	1857	0	0	0	0	13	0	95
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	585	10	105	1857	0	0	0	0	13	0	95
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	616	11	111	1955	0	0	0	0	14	0	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	616	11	111	1955	0	0	0	0	14	0	100
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	616	11	111	1955	0	0	0	0	14	0	100

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3800	1900	1800	3800	0	0	0	0	1800	0	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.16	0.01	0.06	0.51	0.00	0.00	0.00	0.00	0.01	0.00	0.05
Crit Moves:	****			****			****			****		
Green Time:	0.0	51.9	51.9	32.1	84.0	0.0	0.0	0.0	0.0	10.0	0.0	10.0
Volume/Cap:	0.00	0.31	0.01	0.19	0.61	0.00	0.00	0.00	0.00	0.08	0.00	0.53
Delay/Veh:	0.0	13.9	11.6	24.8	3.0	0.0	0.0	0.0	0.0	41.0	0.0	45.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	13.9	11.6	24.8	3.0	0.0	0.0	0.0	0.0	41.0	0.0	45.5
LOS by Move:	A	B	B	C	A	A	A	A	A	D	A	D
HCM2kAvgQ:	0	5	0	3	10	0	0	0	0	0	0	4

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

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Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 A.M. Peak Hour With Mitigations

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.755  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 24.1  
 Optimal Cycle: 50 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	2	0	3

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Volume Module:

Base Vol:	0	0	0	269	0	449	0	312	829	747	1701	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	269	0	449	0	312	829	747	1701	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	283	0	473	0	328	873	786	1791	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	283	0	473	0	328	873	786	1791	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	283	0	473	0	328	873	786	1791	0

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Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.89	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	2.00	2.00	3.00	0.00
Final Sat.:	0	0	0	1800	0	1900	0	3800	3800	3400	5700	0

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Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.25	0.00	0.09	0.23	0.23	0.31	0.00
Crit Moves:						****			****	****		
Green Time:	0.0	0.0	0.0	32.9	0.0	32.9	0.0	30.4	30.4	30.6	61.1	0.0
Volume/Cap:	0.00	0.00	0.00	0.48	0.00	0.75	0.00	0.28	0.75	0.75	0.51	0.00
Delay/Veh:	0.0	0.0	0.0	27.3	0.0	35.1	0.0	26.5	33.5	34.5	11.2	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	27.3	0.0	35.1	0.0	26.5	33.5	34.5	11.2	0.0
LOS by Move:	A	A	A	C	A	D	A	C	C	C	B	A
HCM2kAvgQ:	0	0	0	8	0	14	0	4	14	14	10	0

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 A.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.659  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 23.1  
 Optimal Cycle: 47 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	10	10	10	10	10	10	10	21	21	10	21	21								
Lanes:	1	1	0	0	1	0	0	0	0	0	1	0	3	0	0	0	0	3	0	1

Volume Module:

Base Vol:	897	0	416	0	0	0	121	460	0	0	1551	277
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	897	0	416	0	0	0	121	460	0	0	1551	277
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	944	0	438	0	0	0	127	484	0	0	1633	292
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	944	0	438	0	0	0	127	484	0	0	1633	292
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	944	0	438	0	0	0	127	484	0	0	1633	292

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	1.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	3600	0	1900	0	0	0	1800	5700	0	0	5700	1900

Capacity Analysis Module:

Vol/Sat:	0.26	0.00	0.23	0.00	0.00	0.00	0.07	0.08	0.00	0.00	0.29	0.15
Crit Moves:	****						****			****		
Green Time:	39.8	0.0	39.8	0.0	0.0	0.0	10.7	54.2	0.0	0.0	43.5	43.5
Volume/Cap:	0.66	0.00	0.58	0.00	0.00	0.00	0.66	0.16	0.00	0.00	0.66	0.35
Delay/Veh:	25.7	0.0	24.7	0.0	0.0	0.0	51.0	11.5	0.0	0.0	23.1	19.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.7	0.0	24.7	0.0	0.0	0.0	51.0	11.5	0.0	0.0	23.1	19.1
LOS by Move:	C	A	C	A	A	A	D	B	A	A	C	B
HCM2kAvgQ:	13	0	11	0	0	0	5	2	0	0	14	6

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 A.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.672  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 50.6  
 Optimal Cycle: 87 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	31	31	10	31	31	10	28	28	10	28	28
Lanes:	2	0	2	0	1	1	0	1	0	1	0	2

Volume Module:

Base Vol:	250	220	49	207	687	11	3	450	322	441	1246	76
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	250	220	49	207	687	11	3	450	322	441	1246	76
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	263	232	52	218	723	12	3	474	339	464	1312	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	263	232	52	218	723	12	3	474	339	464	1312	80
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	263	232	52	218	723	12	3	474	339	464	1312	80

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	1.97	0.03	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3400	3800	1900	1800	3740	60	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.08	0.06	0.03	0.12	0.19	0.19	0.00	0.12	0.18	0.26	0.35	0.04
Crit Moves:	****			****			****			****		
Green Time:	10.1	31.0	31.0	10.5	31.4	31.4	11.3	28.0	28.0	22.5	39.1	39.1
Volume/Cap:	0.76	0.20	0.09	1.15	0.62	0.62	0.02	0.45	0.64	1.15	0.88	0.11
Delay/Veh:	53.5	25.4	24.5	155.7	30.1	30.1	39.4	29.9	34.1	130.6	34.8	19.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.5	25.4	24.5	155.7	30.1	30.1	39.4	29.9	34.1	130.6	34.8	19.4
LOS by Move:	D	C	C	F	C	C	D	C	C	F	C	B
HCM2kAvgQ:	6	3	1	14	10	10	0	6	10	26	22	2

Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 A.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.594  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 5.6  
 Optimal Cycle: 27 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	1	0	1	0	0	1	0	0	1	0
	0	1	0	1	0	0	0	1	0	0	1	0

Volume Module:

Base Vol:	0	678	21	11	1762	0	0	88	0	43	70	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	678	21	11	1762	0	0	88	0	43	70	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	714	22	12	1855	0	0	93	0	45	74	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	714	22	12	1855	0	0	93	0	45	74	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	714	22	12	1855	0	0	93	0	45	74	9

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.97	1.00	0.95	0.97	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Lanes:	0.00	2.00	1.00	0.01	1.99	0.00	0.00	1.00	1.00	0.38	0.62	1.00
Final Sat.:	0	3700	1900	23	3676	0	0	1800	1900	685	1115	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.19	0.01	0.50	0.50	0.00	0.00	0.05	0.00	0.07	0.07	0.00
Crit Moves:					****						****	
Green Time:	0.0	84.9	84.9	84.9	84.9	0.0	0.0	11.1	0.0	11.1	11.1	11.1
Volume/Cap:	0.00	0.23	0.01	0.59	0.59	0.00	0.00	0.46	0.00	0.59	0.59	0.04
Delay/Veh:	0.0	1.5	1.2	2.6	2.6	0.0	0.0	43.3	0.0	47.1	47.1	39.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.5	1.2	2.6	2.6	0.0	0.0	43.3	0.0	47.1	47.1	39.8
LOS by Move:	A	A	A	A	A	A	A	D	A	D	D	D
HCM2kAvgQ:	0	2	0	10	10	0	0	3	0	5	5	0

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

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Upper Santa Ana River Wash  
Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
P.M. Peak Hour

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Scenario Report

Scenario:	2030 Alt 1A PM MIT
Command:	2030 Alt 1A PM
Volume:	2030 Alt 1A PM
Geometry:	Alternative A
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	2030

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.766  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 34.6  
 Optimal Cycle: 89 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	10	29	29	10	29	29	10	32	32	10	32	32
Lanes:	1	0	2	0	2	0	1	0	2	0	2	0

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Volume Module:

Base Vol:	196	974	1596	61	325	67	76	783	276	290	534	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	196	974	1596	61	325	67	76	783	276	290	534	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	206	1025	1680	64	342	71	80	824	291	305	562	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	206	1025	1680	64	342	71	80	824	291	305	562	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	206	1025	1680	64	342	71	80	824	291	305	562	132

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Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00
Lanes:	1.00	2.00	2.00	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1800	3800	3601	1800	3800	1900	1800	3800	1900	3400	3800	1900

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Capacity Analysis Module:

Vol/Sat:	0.11	0.27	0.47	0.04	0.09	0.04	0.04	0.22	0.15	0.09	0.15	0.07
Crit Moves:			****	****				****		****		
Green Time:	24.4	61.7	76.5	10.0	47.4	47.4	12.0	35.5	35.5	14.7	38.3	38.3
Volume/Cap:	0.61	0.57	0.79	0.46	0.25	0.10	0.48	0.79	0.56	0.79	0.50	0.24
Delay/Veh:	51.8	25.0	22.8	59.9	28.9	27.3	58.3	48.1	41.9	66.9	38.3	35.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	51.8	25.0	22.8	59.9	28.9	27.3	58.3	48.1	41.9	66.9	38.3	35.0
LOS by Move:	D	C	C	E	C	C	E	D	D	E	D	C
HCM2kAvgQ:	9	15	28	3	5	2	4	17	10	9	9	4

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

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Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.683  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 52.4  
 Optimal Cycle: 87 Level Of Service: D

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	28	28	10	28	28	10	31	31	10	31	31
Lanes:	1	0	3	0	1	1	3	0	1	0	1	0

Volume Module:

Base Vol:	463	1870	4	1	609	281	880	1	456	6	4	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	463	1870	4	1	609	281	880	1	456	6	4	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	487	1968	4	1	641	296	926	1	0	6	4	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	487	1968	4	1	641	296	926	1	0	6	4	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	487	1968	4	1	641	296	926	1	0	6	4	17

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.84	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	2.00	1.00	3.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	5700	1900	1800	3800	1900	4800	1900	1900	1800	1900	1900

Capacity Analysis Module:

Vol/Sat:	0.27	0.35	0.00	0.00	0.17	0.16	0.19	0.00	0.00	0.00	0.00	0.01
Crit Moves:	****			****			****			****		
Green Time:	36.8	53.0	53.0	11.8	28.0	28.0	26.2	43.3	0.0	14.0	31.0	31.0
Volume/Cap:	0.96	0.85	0.01	0.01	0.78	0.72	0.96	0.00	0.00	0.03	0.01	0.04
Delay/Veh:	75.0	38.0	22.9	53.8	53.1	53.6	70.6	29.0	0.0	52.0	37.8	38.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	75.0	38.0	22.9	53.8	53.1	53.6	70.6	29.0	0.0	52.0	37.8	38.1
LOS by Move:	E	D	C	D	D	D	E	C	A	D	D	D
HCM2kAvgQ:	25	26	0	0	14	12	19	0	0	0	0	1

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.697  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 9.7  
 Optimal Cycle: 42 Level Of Service: A  
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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	10	0	0	0	0	0	10	10	10
Lanes:	0	0	2	0	1	0	0	0	0	0	1	0

Volume Module:

Base Vol:	0	2288	0	27	1044	0	0	0	0	9	0	49
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2288	0	27	1044	0	0	0	0	9	0	49
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	2408	0	28	1099	0	0	0	0	9	0	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2408	0	28	1099	0	0	0	0	9	0	52
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	2408	0	28	1099	0	0	0	0	9	0	52

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3800	1900	1800	3800	0	0	0	0	1800	0	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.63	0.00	0.02	0.29	0.00	0.00	0.00	0.00	0.01	0.00	0.03
Crit Moves:	****			****						****		
Green Time:	0.0	74.0	0.0	10.0	84.0	0.0	0.0	0.0	0.0	10.0	0.0	10.0
Volume/Cap:	0.00	0.86	0.00	0.16	0.34	0.00	0.00	0.00	0.00	0.05	0.00	0.27
Delay/Veh:	0.0	12.0	0.0	41.6	1.9	0.0	0.0	0.0	0.0	40.8	0.0	42.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	12.0	0.0	41.6	1.9	0.0	0.0	0.0	0.0	40.8	0.0	42.4
LOS by Move:	A	B	A	D	A	A	A	A	A	D	A	D
HCM2kAvgQ:	0	29	0	1	4	0	0	0	0	0	0	2

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.668  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 19.7  
 Optimal Cycle: 39 Level Of Service: B  
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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	2	0	3

Volume Module:

Base Vol:	0	0	0	248	0	135	0	1434	961	488	1003	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	248	0	135	0	1434	961	488	1003	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	261	0	142	0	1509	1012	514	1056	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	261	0	142	0	1509	1012	514	1056	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	261	0	142	0	1509	1012	514	1056	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.89	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.39	1.61	2.00	3.00	0.00
Final Sat.:	0	0	0	1800	0	1900	0	4550	3050	3400	5700	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.15	0.00	0.07	0.00	0.33	0.33	0.15	0.19	0.00
Crit Moves:				****			****			****		
Green Time:	0.0	0.0	0.0	21.7	0.0	21.7	0.0	49.7	49.7	22.6	72.3	0.0
Volume/Cap:	0.00	0.00	0.00	0.67	0.00	0.34	0.00	0.67	0.67	0.67	0.26	0.00
Delay/Veh:	0.0	0.0	0.0	40.2	0.0	33.6	0.0	19.4	19.4	37.5	4.7	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	40.2	0.0	33.6	0.0	19.4	19.4	37.5	4.7	0.0
LOS by Move:	A	A	A	D	A	C	A	B	B	D	A	A
HCM2kAvgQ:	0	0	0	9	0	4	0	15	15	9	4	0

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

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Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.763  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 27.7  
 Optimal Cycle: 51 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	10	10	10	10	10	10	10	21	21	10	21	21								
Lanes:	1	1	0	0	1	0	0	0	0	0	1	0	3	0	0	0	0	3	0	1

Volume Module:

Base Vol:	626	0	750	0	0	0	243	1439	0	0	865	191
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	626	0	750	0	0	0	243	1439	0	0	865	191
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	659	0	789	0	0	0	256	1515	0	0	911	201
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	659	0	789	0	0	0	256	1515	0	0	911	201
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	659	0	789	0	0	0	256	1515	0	0	911	201

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	1.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	3600	0	1900	0	0	0	1800	5700	0	0	5700	1900

Capacity Analysis Module:

Vol/Sat:	0.18	0.00	0.42	0.00	0.00	0.00	0.14	0.27	0.00	0.00	0.16	0.11
Crit Moves:	****			****			****			****		
Green Time:	54.4	0.0	54.4	0.0	0.0	0.0	18.6	39.6	0.0	0.0	21.0	21.0
Volume/Cap:	0.34	0.00	0.76	0.00	0.00	0.00	0.76	0.67	0.00	0.00	0.76	0.50
Delay/Veh:	12.8	0.0	21.2	0.0	0.0	0.0	48.6	25.6	0.0	0.0	40.0	35.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.8	0.0	21.2	0.0	0.0	0.0	48.6	25.6	0.0	0.0	40.0	35.9
LOS by Move:	B	A	C	A	A	A	D	C	A	A	D	D
HCM2kAvgQ:	6	0	20	0	0	0	10	13	0	0	11	6

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.827  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 45.7  
 Optimal Cycle: 87 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	31	31	10	31	31	10	28	28	10	28	28
Lanes:	2	0	2	0	1	1	0	1	0	1	0	2

Volume Module:

Base Vol:	613	1059	64	321	772	64	11	1001	455	4	155	107
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	613	1059	64	321	772	64	11	1001	455	4	155	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	645	1115	67	338	813	67	12	1054	479	4	163	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	645	1115	67	338	813	67	12	1054	479	4	163	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	645	1115	67	338	813	67	12	1054	479	4	163	113

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	1.85	0.15	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3400	3800	1900	1800	3509	291	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.19	0.29	0.04	0.19	0.23	0.23	0.01	0.28	0.25	0.00	0.04	0.06
Crit Moves:	****			****			****			****		
Green Time:	19.8	31.7	31.7	20.3	32.3	32.3	10.5	30.0	30.0	10.0	29.5	29.5
Volume/Cap:	0.96	0.92	0.11	0.92	0.72	0.72	0.06	0.92	0.84	0.02	0.15	0.20
Delay/Veh:	65.0	44.9	24.3	67.9	31.9	31.9	40.4	46.4	43.6	40.6	26.1	26.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	65.0	44.9	24.3	67.9	31.9	31.9	40.4	46.4	43.6	40.6	26.1	26.6
LOS by Move:	E	D	C	E	C	C	D	D	D	D	C	C
HCM2kAvgQ:	16	21	1	15	13	13	0	20	16	0	2	3

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

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Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. A  
 P.M. Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.659  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 3.1  
 Optimal Cycle: 32 Level Of Service: A  
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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	1	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	1	2176	9	0	1474	0	0	11	1	8	15	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	2176	9	0	1474	0	0	11	1	8	15	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	1	2291	9	0	1552	0	0	12	1	8	16	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	2291	9	0	1552	0	0	12	1	8	16	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	1	2291	9	0	1552	0	0	12	1	8	16	1

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.97	1.00	0.95	0.97	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Lanes:	0.01	1.99	1.00	0.00	2.00	0.00	0.00	1.00	1.00	0.35	0.65	1.00
Final Sat.:	2	3698	1900	0	3700	0	0	1800	1900	626	1174	1900

Capacity Analysis Module:

Vol/Sat:	0.62	0.62	0.00	0.00	0.42	0.00	0.00	0.01	0.00	0.01	0.01	0.00
Crit Moves:	****									****		
Green Time:	86.0	86.0	86.0	0.0	86.0	0.0	0.0	10.0	10.0	10.0	10.0	10.0
Volume/Cap:	0.72	0.72	0.01	0.00	0.49	0.00	0.00	0.06	0.01	0.13	0.13	0.01
Delay/Veh:	3.4	3.4	1.0	0.0	1.8	0.0	0.0	40.9	40.5	41.4	41.4	40.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	3.4	3.4	1.0	0.0	1.8	0.0	0.0	40.9	40.5	41.4	41.4	40.5
LOS by Move:	A	A	A	A	A	A	A	D	D	D	D	D
HCM2kAvgQ:	14	14	0	0	6	0	0	0	0	1	1	0

Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
A.M. Peak Hour With Mitigations

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Scenario Report

Scenario:	2030 mit Alt 1B AM
Command:	2030 Alt 1B AM
Volume:	2030 Alt 1B AM
Geometry:	Alternative B
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	2030

Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour With Mitigations

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.855  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 47.2  
 Optimal Cycle: 87 Level Of Service: D

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	29	29	10	29	29	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	2

Volume Module:

Base Vol:	86	134	40	102	893	120	22	314	224	1230	995	74
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	86	134	40	102	893	120	22	314	224	1230	995	74
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	91	141	42	107	940	126	23	331	236	1295	1047	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	141	42	107	940	126	23	331	236	1295	1047	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	91	141	42	107	940	126	23	331	236	1295	1047	78

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	3400	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.05	0.04	0.02	0.06	0.25	0.07	0.01	0.09	0.12	0.38	0.28	0.04
Crit Moves:	****			****			****			****		
Green Time:	10.0	32.6	32.6	11.2	33.9	33.9	17.0	26.0	26.0	52.1	61.1	61.1
Volume/Cap:	0.65	0.15	0.09	0.69	0.95	0.26	0.10	0.43	0.62	0.95	0.59	0.09
Delay/Veh:	69.0	38.0	37.4	70.0	64.9	38.4	49.9	46.0	50.6	51.8	25.7	19.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	69.0	38.0	37.4	70.0	64.9	38.4	49.9	46.0	50.6	51.8	25.7	19.1
LOS by Move:	E	D	D	E	E	D	D	D	D	D	C	B
HCM2kAvgQ:	5	2	1	6	23	4	1	6	9	33	15	2

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.796  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 48.7  
 Optimal Cycle: 81 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	25	25	10	25	25	10	28	28	10	28	28
Lanes:	1	0	1	1	0	1	2	0	1	1	0	1

Volume Module:

Base Vol:	295	123	355	26	1696	625	97	181	343	8	1	40
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	295	123	355	26	1696	625	97	181	343	8	1	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	311	129	374	27	1785	658	102	191	0	8	1	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	311	129	374	27	1785	658	102	191	0	8	1	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	311	129	374	27	1785	658	102	191	0	8	1	42

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	2.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	0.02	0.98
Final Sat.:	1800	1900	3800	1800	3800	1900	3400	1900	1900	1800	46	1854

Capacity Analysis Module:

Vol/Sat:	0.17	0.07	0.10	0.02	0.47	0.35	0.03	0.10	0.00	0.00	0.02	0.02
Crit Moves:	****			****			****			****		
Green Time:	22.6	60.0	60.0	24.0	61.4	61.4	10.0	28.0	0.0	10.0	28.0	28.0
Volume/Cap:	0.99	0.15	0.21	0.08	0.99	0.73	0.39	0.47	0.00	0.06	0.11	0.11
Delay/Veh:	102.9	20.2	20.9	44.0	53.9	30.8	58.1	45.3	0.0	55.8	41.1	41.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	102.9	20.2	20.9	44.0	53.9	30.8	58.1	45.3	0.0	55.8	41.1	41.1
LOS by Move:	F	C	C	D	D	C	E	D	A	E	D	D
HCM2kAvgQ:	18	3	4	1	42	22	3	7	0	0	1	1

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

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Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour With Mitigations

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.658  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 17.2  
 Optimal Cycle: 66 Level Of Service: B  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	0	2	0	1	0	1	0	2	0	0	0

Volume Module:

Base Vol:	0	585	10	192	1857	0	0	0	0	13	0	188
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	585	10	192	1857	0	0	0	0	13	0	188
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	616	11	202	1955	0	0	0	0	14	0	198
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	616	11	202	1955	0	0	0	0	14	0	198
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	616	11	202	1955	0	0	0	0	14	0	198

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3800	1900	1800	3800	0	0	0	0	1800	0	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.16	0.01	0.11	0.51	0.00	0.00	0.00	0.00	0.01	0.00	0.10
Crit Moves:	****											
Green Time:	0.0	19.5	19.5	61.9	81.5	0.0	0.0	0.0	0.0	12.5	0.0	12.5
Volume/Cap:	0.00	0.83	0.03	0.18	0.63	0.00	0.00	0.00	0.00	0.06	0.00	0.83
Delay/Veh:	0.0	46.5	32.6	8.2	4.0	0.0	0.0	0.0	0.0	38.7	0.0	63.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	46.5	32.6	8.2	4.0	0.0	0.0	0.0	0.0	38.7	0.0	63.8
LOS by Move:	A	D	C	A	A	A	A	A	A	D	A	E
HCM2kAvgQ:	0	12	0	3	12	0	0	0	0	0	0	8

Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.755  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 24.1  
 Optimal Cycle: 50 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	2	0	3

Volume Module:

Base Vol:	0	0	0	269	0	449	0	312	829	747	1701	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	269	0	449	0	312	829	747	1701	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	283	0	473	0	328	873	786	1791	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	283	0	473	0	328	873	786	1791	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	283	0	473	0	328	873	786	1791	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.89	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	2.00	2.00	3.00	0.00
Final Sat.:	0	0	0	1800	0	1900	0	3800	3800	3400	5700	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.25	0.00	0.09	0.23	0.23	0.31	0.00
Crit Moves:						****			****	****		
Green Time:	0.0	0.0	0.0	32.9	0.0	32.9	0.0	30.4	30.4	30.6	61.1	0.0
Volume/Cap:	0.00	0.00	0.00	0.48	0.00	0.75	0.00	0.28	0.75	0.75	0.51	0.00
Delay/Veh:	0.0	0.0	0.0	27.3	0.0	35.1	0.0	26.5	33.5	34.5	11.2	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	27.3	0.0	35.1	0.0	26.5	33.5	34.5	11.2	0.0
LOS by Move:	A	A	A	C	A	D	A	C	C	C	B	A
HCM2kAvgQ:	0	0	0	8	0	14	0	4	14	14	10	0

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.659  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 23.1  
 Optimal Cycle: 47 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	10	10	10	10	10	10	10	21	21	10	21	21								
Lanes:	1	1	0	0	1	0	0	0	0	0	1	0	3	0	0	0	0	3	0	1

Volume Module:

Base Vol:	897	0	416	0	0	0	121	460	0	0	1551	277
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	897	0	416	0	0	0	121	460	0	0	1551	277
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	944	0	438	0	0	0	127	484	0	0	1633	292
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	944	0	438	0	0	0	127	484	0	0	1633	292
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	944	0	438	0	0	0	127	484	0	0	1633	292

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	1.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	3600	0	1900	0	0	0	1800	5700	0	0	5700	1900

Capacity Analysis Module:

Vol/Sat:	0.26	0.00	0.23	0.00	0.00	0.00	0.07	0.08	0.00	0.00	0.29	0.15
Crit Moves:	****						****			****		
Green Time:	39.8	0.0	39.8	0.0	0.0	0.0	10.7	54.2	0.0	0.0	43.5	43.5
Volume/Cap:	0.66	0.00	0.58	0.00	0.00	0.00	0.66	0.16	0.00	0.00	0.66	0.35
Delay/Veh:	25.7	0.0	24.7	0.0	0.0	0.0	51.0	11.5	0.0	0.0	23.1	19.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.7	0.0	24.7	0.0	0.0	0.0	51.0	11.5	0.0	0.0	23.1	19.1
LOS by Move:	C	A	C	A	A	A	D	B	A	A	C	B
HCM2kAvgQ:	13	0	11	0	0	0	5	2	0	0	14	6

Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.659  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 43.8  
 Optimal Cycle: 90 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	31	31	10	31	31	10	31	31	10	31	31
Lanes:	2	0	2	0	1	1	0	1	0	1	0	2

Volume Module:

Base Vol:	250	220	49	207	687	11	3	450	322	441	1246	76
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	250	220	49	207	687	11	3	450	322	441	1246	76
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	263	232	52	218	723	12	3	474	339	464	1312	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	263	232	52	218	723	12	3	474	339	464	1312	80
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	263	232	52	218	723	12	3	474	339	464	1312	80

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	1.97	0.03	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3400	3800	1900	1800	3740	60	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.08	0.06	0.03	0.12	0.19	0.19	0.00	0.12	0.18	0.26	0.35	0.04
Crit Moves:	****			****			****			****		
Green Time:	12.3	31.0	31.0	19.2	37.9	37.9	13.1	31.0	31.0	40.8	58.7	58.7
Volume/Cap:	0.82	0.26	0.11	0.82	0.66	0.66	0.02	0.52	0.75	0.82	0.76	0.09
Delay/Veh:	72.9	40.3	38.9	71.9	42.0	42.0	52.7	43.6	52.6	50.5	31.9	20.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	72.9	40.3	38.9	71.9	42.0	42.0	52.7	43.6	52.6	50.5	31.9	20.4
LOS by Move:	E	D	D	E	D	D	D	D	D	D	C	C
HCM2kAvgQ:	8	4	2	11	13	13	0	8	14	20	23	2

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 A.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.594  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 5.6  
 Optimal Cycle: 27 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	1	0	1	0	0	1	0	0	1	0
	0	1	0	1	0	0	0	1	0	0	1	0

Volume Module:

Base Vol:	0	678	21	11	1762	0	0	88	0	43	70	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	678	21	11	1762	0	0	88	0	43	70	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	714	22	12	1855	0	0	93	0	45	74	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	714	22	12	1855	0	0	93	0	45	74	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	714	22	12	1855	0	0	93	0	45	74	9

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.97	1.00	0.95	0.97	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Lanes:	0.00	2.00	1.00	0.01	1.99	0.00	0.00	1.00	1.00	0.38	0.62	1.00
Final Sat.:	0	3700	1900	23	3676	0	0	1800	1900	685	1115	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.19	0.01	0.50	0.50	0.00	0.00	0.05	0.00	0.07	0.07	0.00
Crit Moves:					****						****	
Green Time:	0.0	84.9	84.9	84.9	84.9	0.0	0.0	11.1	0.0	11.1	11.1	11.1
Volume/Cap:	0.00	0.23	0.01	0.59	0.59	0.00	0.00	0.46	0.00	0.59	0.59	0.04
Delay/Veh:	0.0	1.5	1.2	2.6	2.6	0.0	0.0	43.3	0.0	47.1	47.1	39.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.5	1.2	2.6	2.6	0.0	0.0	43.3	0.0	47.1	47.1	39.8
LOS by Move:	A	A	A	A	A	A	A	D	A	D	D	D
HCM2kAvgQ:	0	2	0	10	10	0	0	3	0	5	5	0

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
P.M. Peak Hour With Mitigations

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Scenario Report

Scenario:	2030 mit Alt 1B PM
Command:	2030 Alt 1B PM
Volume:	2030 Alt 1B PM
Geometry:	Alternative B
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	2030

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.670  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 39.1  
 Optimal Cycle: 83 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	29	29	10	29	29	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	2

Volume Module:

Base Vol:	196	974	156	61	325	67	76	783	276	343	534	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	196	974	156	61	325	67	76	783	276	343	534	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	206	1025	164	64	342	71	80	824	291	361	562	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	206	1025	164	64	342	71	80	824	291	361	562	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	206	1025	164	64	342	71	80	824	291	361	562	132

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	3400	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.11	0.27	0.09	0.04	0.09	0.04	0.04	0.22	0.15	0.11	0.15	0.07
Crit Moves:	****			****			****			****		
Green Time:	20.7	51.0	51.0	10.0	40.3	40.3	17.0	41.0	41.0	20.1	44.1	44.1
Volume/Cap:	0.72	0.69	0.22	0.46	0.29	0.12	0.34	0.69	0.49	0.69	0.44	0.20
Delay/Veh:	60.5	34.3	26.4	59.9	34.2	32.2	52.3	40.6	36.6	55.9	33.6	30.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	60.5	34.3	26.4	59.9	34.2	32.2	52.3	40.6	36.6	55.9	33.6	30.7
LOS by Move:	E	C	C	E	C	C	D	D	D	E	C	C
HCM2kAvgQ:	10	17	4	3	5	2	3	15	9	9	9	4

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.635  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 43.6  
 Optimal Cycle: 81 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	25	25	10	25	25	10	28	28	10	28	28
Lanes:	1	0	1	1	0	1	2	0	1	1	0	1

Volume Module:

Base Vol:	463	887	1017	1	662	281	423	458	456	6	4	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	463	887	1017	1	662	281	423	458	456	6	4	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	487	934	1071	1	697	296	445	482	0	6	4	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	487	934	1071	1	697	296	445	482	0	6	4	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	487	934	1071	1	697	296	445	482	0	6	4	17

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.40	1.60	1.00	2.00	1.00	2.00	1.00	1.00	1.00	0.20	0.80
Final Sat.:	1800	2655	3045	1800	3800	1900	3400	1900	1900	1800	380	1520

Capacity Analysis Module:

Vol/Sat:	0.27	0.35	0.35	0.00	0.18	0.16	0.13	0.25	0.00	0.00	0.01	0.01
Crit Moves:	****			****			****			****		
Green Time:	43.5	59.9	59.9	13.1	29.5	29.5	21.0	37.6	0.0	11.4	28.0	28.0
Volume/Cap:	0.81	0.76	0.76	0.01	0.81	0.69	0.81	0.88	0.00	0.04	0.05	0.05
Delay/Veh:	47.5	30.6	30.6	52.6	53.4	50.7	61.3	58.7	0.0	54.4	40.5	40.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.5	30.6	30.6	52.6	53.4	50.7	61.3	58.7	0.0	54.4	40.5	40.5
LOS by Move:	D	C	C	D	D	D	E	E	A	D	D	D
HCM2kAvgQ:	20	23	23	0	15	12	12	21	0	0	1	1

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.730  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 10.5  
 Optimal Cycle: 46 Level Of Service: B

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	0	2	0	1	0	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	2288	1	80	1044	0	0	0	0	9	0	79
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2288	1	80	1044	0	0	0	0	9	0	79
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	2408	1	84	1099	0	0	0	0	9	0	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2408	1	84	1099	0	0	0	0	9	0	83
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	2408	1	84	1099	0	0	0	0	9	0	83

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3800	1900	1800	3800	0	0	0	0	1800	0	1900

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.63	0.00	0.05	0.29	0.00	0.00	0.00	0.00	0.01	0.00	0.04
Crit Moves:	****			****						****		
Green Time:	0.0	74.0	74.0	10.0	84.0	0.0	0.0	0.0	0.0	10.0	0.0	10.0
Volume/Cap:	0.00	0.86	0.00	0.47	0.34	0.00	0.00	0.00	0.00	0.05	0.00	0.44
Delay/Veh:	0.0	12.0	3.4	44.4	1.9	0.0	0.0	0.0	0.0	40.8	0.0	44.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	12.0	3.4	44.4	1.9	0.0	0.0	0.0	0.0	40.8	0.0	44.0
LOS by Move:	A	B	A	D	A	A	A	A	A	D	A	D
HCM2kAvgQ:	0	29	0	3	4	0	0	0	0	0	0	3

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.668  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 19.7  
 Optimal Cycle: 39 Level Of Service: B  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	2	0	3

Volume Module:

Base Vol:	0	0	0	248	0	135	0	1434	961	488	1003	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	248	0	135	0	1434	961	488	1003	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	261	0	142	0	1509	1012	514	1056	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	261	0	142	0	1509	1012	514	1056	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	261	0	142	0	1509	1012	514	1056	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.89	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.39	1.61	2.00	3.00	0.00
Final Sat.:	0	0	0	1800	0	1900	0	4550	3050	3400	5700	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.15	0.00	0.07	0.00	0.33	0.33	0.15	0.19	0.00
Crit Moves:				****			****			****		
Green Time:	0.0	0.0	0.0	21.7	0.0	21.7	0.0	49.7	49.7	22.6	72.3	0.0
Volume/Cap:	0.00	0.00	0.00	0.67	0.00	0.34	0.00	0.67	0.67	0.67	0.26	0.00
Delay/Veh:	0.0	0.0	0.0	40.2	0.0	33.6	0.0	19.4	19.4	37.5	4.7	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	40.2	0.0	33.6	0.0	19.4	19.4	37.5	4.7	0.0
LOS by Move:	A	A	A	D	A	C	A	B	B	D	A	A
HCM2kAvgQ:	0	0	0	9	0	4	0	15	15	9	4	0

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.763  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 27.7  
 Optimal Cycle: 51 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	10	10	10	10	10	10	10	21	21	10	21	21								
Lanes:	1	1	0	0	1	0	0	0	0	0	1	0	3	0	0	0	0	3	0	1

Volume Module:

Base Vol:	626	0	750	0	0	0	243	1439	0	0	865	191
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	626	0	750	0	0	0	243	1439	0	0	865	191
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	659	0	789	0	0	0	256	1515	0	0	911	201
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	659	0	789	0	0	0	256	1515	0	0	911	201
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	659	0	789	0	0	0	256	1515	0	0	911	201

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	1.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	3600	0	1900	0	0	0	1800	5700	0	0	5700	1900

Capacity Analysis Module:

Vol/Sat:	0.18	0.00	0.42	0.00	0.00	0.00	0.14	0.27	0.00	0.00	0.16	0.11
Crit Moves:	****						****			****		
Green Time:	54.4	0.0	54.4	0.0	0.0	0.0	18.6	39.6	0.0	0.0	21.0	21.0
Volume/Cap:	0.34	0.00	0.76	0.00	0.00	0.00	0.76	0.67	0.00	0.00	0.76	0.50
Delay/Veh:	12.8	0.0	21.2	0.0	0.0	0.0	48.6	25.6	0.0	0.0	40.0	35.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.8	0.0	21.2	0.0	0.0	0.0	48.6	25.6	0.0	0.0	40.0	35.9
LOS by Move:	B	A	C	A	A	A	D	C	A	A	D	D
HCM2kAvgQ:	6	0	20	0	0	0	10	13	0	0	11	6

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.811  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 48.7  
 Optimal Cycle: 90 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	31	31	10	31	31	10	31	31	10	31	31
Lanes:	2	0	2	0	1	1	0	1	1	0	1	1

Volume Module:

Base Vol:	613	1059	64	321	772	64	11	1001	455	4	155	107
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	613	1059	64	321	772	64	11	1001	455	4	155	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	645	1115	67	338	813	67	12	1054	479	4	163	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	645	1115	67	338	813	67	12	1054	479	4	163	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	645	1115	67	338	813	67	12	1054	479	4	163	113

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	1.85	0.15	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3400	3800	1900	1800	3509	291	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.19	0.29	0.04	0.19	0.23	0.23	0.01	0.28	0.25	0.00	0.04	0.06
Crit Moves:	****			****			****			****		
Green Time:	31.5	43.3	43.3	27.7	39.6	39.6	12.4	41.0	41.0	10.0	38.5	38.5
Volume/Cap:	0.78	0.88	0.11	0.88	0.76	0.76	0.07	0.88	0.80	0.03	0.14	0.20
Delay/Veh:	51.0	48.3	30.0	69.8	44.0	44.0	53.7	50.0	48.3	55.6	33.7	34.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	51.0	48.3	30.0	69.8	44.0	44.0	53.7	50.0	48.3	55.6	33.7	34.4
LOS by Move:	D	D	C	E	D	D	D	D	D	E	C	C
HCM2kAvgQ:	15	24	2	17	17	17	0	23	19	0	2	3

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. B  
 P.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.659  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 3.1  
 Optimal Cycle: 32 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Permitted			Permitted			Permitted			Permitted						
Rights:	Include			Include			Include			Include						
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10				
Lanes:	0	1	1	0	1	0	0	1	0	0	1	0	1	0	0	1

Volume Module:

Base Vol:	1	2176	9	0	1474	0	0	11	1	8	15	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	2176	9	0	1474	0	0	11	1	8	15	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	1	2291	9	0	1552	0	0	12	1	8	16	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	2291	9	0	1552	0	0	12	1	8	16	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	1	2291	9	0	1552	0	0	12	1	8	16	1

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.97	1.00	0.95	0.97	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Lanes:	0.01	1.99	1.00	0.00	2.00	0.00	0.00	1.00	1.00	0.35	0.65	1.00
Final Sat.:	2	3698	1900	0	3700	0	0	1800	1900	626	1174	1900

Capacity Analysis Module:

Vol/Sat:	0.62	0.62	0.00	0.00	0.42	0.00	0.00	0.01	0.00	0.01	0.01	0.00
Crit Moves:	****									****		
Green Time:	86.0	86.0	86.0	0.0	86.0	0.0	0.0	10.0	10.0	10.0	10.0	10.0
Volume/Cap:	0.72	0.72	0.01	0.00	0.49	0.00	0.00	0.06	0.01	0.13	0.13	0.01
Delay/Veh:	3.4	3.4	1.0	0.0	1.8	0.0	0.0	40.9	40.5	41.4	41.4	40.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	3.4	3.4	1.0	0.0	1.8	0.0	0.0	40.9	40.5	41.4	41.4	40.5
LOS by Move:	A	A	A	A	A	A	A	D	D	D	D	D
HCM2kAvgQ:	14	14	0	0	6	0	0	0	0	1	1	0

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
A.M. Peak Hour With Mitigations

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Scenario Report

Scenario:	2030 Alt 1D AM mit
Command:	2030 Alt 1D AM
Volume:	2030 Alt 1D AM
Geometry:	Alternative D
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	2030

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.826  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 44.2  
 Optimal Cycle: 83 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	29	29	10	29	29	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	2

Volume Module:

Base Vol:	86	134	40	102	893	120	22	314	224	1143	995	74
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	86	134	40	102	893	120	22	314	224	1143	995	74
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	91	141	42	107	940	126	23	331	236	1203	1047	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	141	42	107	940	126	23	331	236	1203	1047	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	91	141	42	107	940	126	23	331	236	1203	1047	78

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	3400	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.05	0.04	0.02	0.06	0.25	0.07	0.01	0.09	0.12	0.35	0.28	0.04
Crit Moves:	****			****					****	****		
Green Time:	10.0	33.7	33.7	11.6	35.4	35.4	16.7	26.0	26.0	50.6	59.9	59.9
Volume/Cap:	0.65	0.14	0.09	0.67	0.91	0.24	0.10	0.43	0.62	0.91	0.60	0.09
Delay/Veh:	69.0	37.1	36.5	67.5	57.3	37.1	50.2	46.0	50.6	46.9	26.7	19.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	69.0	37.1	36.5	67.5	57.3	37.1	50.2	46.0	50.6	46.9	26.7	19.8
LOS by Move:	E	D	D	E	E	D	D	D	D	D	C	B
HCM2kAvgQ:	5	2	1	6	22	4	1	6	9	29	16	2

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.771  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 44.5  
 Optimal Cycle: 81 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	25	25	10	25	25	10	28	28	10	28	28
Lanes:	1	0	1	1	0	1	2	0	1	1	0	1

Volume Module:

Base Vol:	295	123	285	26	1609	625	97	181	343	8	1	40
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	295	123	285	26	1609	625	97	181	343	8	1	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	311	129	300	27	1694	658	102	191	0	8	1	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	311	129	300	27	1694	658	102	191	0	8	1	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	311	129	300	27	1694	658	102	191	0	8	1	42

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	2.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	0.02	0.98
Final Sat.:	1800	1900	3800	1800	3800	1900	3400	1900	1900	1800	46	1854

Capacity Analysis Module:

Vol/Sat:	0.17	0.07	0.08	0.02	0.45	0.35	0.03	0.10	0.00	0.00	0.02	0.02
Crit Moves:	****			****			****			****		
Green Time:	23.4	60.0	60.0	24.0	60.6	60.6	10.0	28.0	0.0	10.0	28.0	28.0
Volume/Cap:	0.96	0.15	0.17	0.08	0.96	0.74	0.39	0.47	0.00	0.06	0.11	0.11
Delay/Veh:	91.2	20.2	20.5	44.0	46.1	31.8	58.1	45.3	0.0	55.8	41.1	41.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	91.2	20.2	20.5	44.0	46.1	31.8	58.1	45.3	0.0	55.8	41.1	41.1
LOS by Move:	F	C	C	D	D	C	E	D	A	E	D	D
HCM2kAvgQ:	17	3	3	1	38	22	3	7	0	0	1	1

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.555  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 8.6  
 Optimal Cycle: 36 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	0	2	0	1	0	0	0	0	0	1	0

Volume Module:

Base Vol:	0	585	10	105	1857	0	0	0	0	13	0	118
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	585	10	105	1857	0	0	0	0	13	0	118
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	616	11	111	1955	0	0	0	0	14	0	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	616	11	111	1955	0	0	0	0	14	0	124
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	616	11	111	1955	0	0	0	0	14	0	124

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3800	1900	1800	3800	0	0	0	0	1800	0	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.16	0.01	0.06	0.51	0.00	0.00	0.00	0.00	0.01	0.00	0.07
Crit Moves:	****			****			****			****		
Green Time:	0.0	51.6	51.6	31.8	83.4	0.0	0.0	0.0	0.0	10.6	0.0	10.6
Volume/Cap:	0.00	0.31	0.01	0.19	0.62	0.00	0.00	0.00	0.00	0.07	0.00	0.62
Delay/Veh:	0.0	14.1	11.8	24.9	3.2	0.0	0.0	0.0	0.0	40.4	0.0	48.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	14.1	11.8	24.9	3.2	0.0	0.0	0.0	0.0	40.4	0.0	48.4
LOS by Move:	A	B	B	C	A	A	A	A	A	D	A	D
HCM2kAvgQ:	0	5	0	3	11	0	0	0	0	0	0	5

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.755  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 24.1  
 Optimal Cycle: 50 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	2	0	3

Volume Module:

Base Vol:	0	0	0	269	0	449	0	312	829	747	1701	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	269	0	449	0	312	829	747	1701	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	283	0	473	0	328	873	786	1791	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	283	0	473	0	328	873	786	1791	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	283	0	473	0	328	873	786	1791	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.89	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	2.00	2.00	3.00	0.00
Final Sat.:	0	0	0	1800	0	1900	0	3800	3800	3400	5700	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.25	0.00	0.09	0.23	0.23	0.31	0.00
Crit Moves:						****			****	****		
Green Time:	0.0	0.0	0.0	32.9	0.0	32.9	0.0	30.4	30.4	30.6	61.1	0.0
Volume/Cap:	0.00	0.00	0.00	0.48	0.00	0.75	0.00	0.28	0.75	0.75	0.51	0.00
Delay/Veh:	0.0	0.0	0.0	27.3	0.0	35.1	0.0	26.5	33.5	34.5	11.2	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	27.3	0.0	35.1	0.0	26.5	33.5	34.5	11.2	0.0
LOS by Move:	A	A	A	C	A	D	A	C	C	C	B	A
HCM2kAvgQ:	0	0	0	8	0	14	0	4	14	14	10	0

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour With Mitigations

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.659  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 23.1  
 Optimal Cycle: 44 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18								
Lanes:	1	1	0	0	1	0	0	0	0	0	1	0	3	0	0	0	0	3	0	1

Volume Module:

Base Vol:	897	0	416	0	0	0	121	460	0	0	1551	277
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	897	0	416	0	0	0	121	460	0	0	1551	277
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	944	0	438	0	0	0	127	484	0	0	1633	292
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	944	0	438	0	0	0	127	484	0	0	1633	292
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	944	0	438	0	0	0	127	484	0	0	1633	292

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	1.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	3600	0	1900	0	0	0	1800	5700	0	0	5700	1900

Capacity Analysis Module:

Vol/Sat:	0.26	0.00	0.23	0.00	0.00	0.00	0.07	0.08	0.00	0.00	0.29	0.15
Crit Moves:	****						****			****		
Green Time:	39.8	0.0	39.8	0.0	0.0	0.0	10.7	54.2	0.0	0.0	43.5	43.5
Volume/Cap:	0.66	0.00	0.58	0.00	0.00	0.00	0.66	0.16	0.00	0.00	0.66	0.35
Delay/Veh:	25.7	0.0	24.7	0.0	0.0	0.0	51.0	11.5	0.0	0.0	23.1	19.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.7	0.0	24.7	0.0	0.0	0.0	51.0	11.5	0.0	0.0	23.1	19.1
LOS by Move:	C	A	C	A	A	A	D	B	A	A	C	B
HCM2kAvgQ:	13	0	11	0	0	0	5	2	0	0	14	6

Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.659  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 43.8  
 Optimal Cycle: 90 Level Of Service: D

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	31	31	10	31	31	10	31	31	10	31	31
Lanes:	2	0	2	0	1	1	0	1	0	1	0	2

Volume Module:

Base Vol:	250	220	49	207	687	11	3	450	322	441	1246	76
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	250	220	49	207	687	11	3	450	322	441	1246	76
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	263	232	52	218	723	12	3	474	339	464	1312	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	263	232	52	218	723	12	3	474	339	464	1312	80
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	263	232	52	218	723	12	3	474	339	464	1312	80

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	1.97	0.03	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3400	3800	1900	1800	3740	60	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.08	0.06	0.03	0.12	0.19	0.19	0.00	0.12	0.18	0.26	0.35	0.04
Crit Moves:	****			****			****			****		
Green Time:	12.3	31.0	31.0	19.2	37.9	37.9	13.1	31.0	31.0	40.8	58.7	58.7
Volume/Cap:	0.82	0.26	0.11	0.82	0.66	0.66	0.02	0.52	0.75	0.82	0.76	0.09
Delay/Veh:	72.9	40.3	38.9	71.9	42.0	42.0	52.7	43.6	52.6	50.5	31.9	20.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	72.9	40.3	38.9	71.9	42.0	42.0	52.7	43.6	52.6	50.5	31.9	20.4
LOS by Move:	E	D	D	E	D	D	D	D	D	D	C	C
HCM2kAvgQ:	8	4	2	11	13	13	0	8	14	20	23	2

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 A.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.594  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 5.7  
 Optimal Cycle: 27 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	0	678	21	11	1762	0	0	88	0	43	70	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	678	21	11	1762	0	0	88	0	43	70	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	714	22	12	1855	0	0	93	0	45	74	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	714	22	12	1855	0	0	93	0	45	74	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	714	22	12	1855	0	0	93	0	45	74	9

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.97	1.00	0.95	0.97	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Lanes:	0.00	1.94	0.06	0.01	1.99	0.00	0.00	1.00	1.00	0.38	0.62	1.00
Final Sat.:	0	3592	111	23	3676	0	0	1800	1900	685	1115	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.20	0.20	0.50	0.50	0.00	0.00	0.05	0.00	0.07	0.07	0.00
Crit Moves:	****						****					
Green Time:	0.0	84.9	84.9	84.9	84.9	0.0	0.0	11.1	0.0	11.1	11.1	11.1
Volume/Cap:	0.00	0.23	0.23	0.59	0.59	0.00	0.00	0.46	0.00	0.59	0.59	0.04
Delay/Veh:	0.0	1.5	1.5	2.6	2.6	0.0	0.0	43.3	0.0	47.1	47.1	39.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.5	1.5	2.6	2.6	0.0	0.0	43.3	0.0	47.1	47.1	39.8
LOS by Move:	A	A	A	A	A	A	A	D	A	D	D	D
HCM2kAvgQ:	0	2	2	10	10	0	0	3	0	5	5	0

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
P.M. Peak Hour With Mitigations

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Scenario Report

Scenario:	2030 Alt 1D PM mit
Command:	2030 Alt 1D PM
Volume:	2030 Alt 1D PM
Geometry:	Alternative D
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	2030

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.652  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 38.2  
 Optimal Cycle: 83 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	29	29	10	29	29	10	26	26	10	26	26
Lanes:	1	0	2	0	1	1	1	0	2	0	1	2

Volume Module:

Base Vol:	196	974	156	61	325	67	76	783	276	290	534	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	196	974	156	61	325	67	76	783	276	290	534	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	206	1025	164	64	342	71	80	824	291	305	562	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	206	1025	164	64	342	71	80	824	291	305	562	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	206	1025	164	64	342	71	80	824	291	305	562	132

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	3400	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.11	0.27	0.09	0.04	0.09	0.04	0.04	0.22	0.15	0.09	0.15	0.07
Crit Moves:	****			****			****			****		
Green Time:	21.2	52.4	52.4	10.0	41.2	41.2	16.6	42.1	42.1	17.4	43.0	43.0
Volume/Cap:	0.70	0.67	0.21	0.46	0.28	0.12	0.35	0.67	0.47	0.67	0.45	0.21
Delay/Veh:	58.9	32.9	25.5	59.9	33.4	31.6	52.7	39.4	35.6	57.4	34.4	31.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	58.9	32.9	25.5	59.9	33.4	31.6	52.7	39.4	35.6	57.4	34.4	31.4
LOS by Move:	E	C	C	E	C	C	D	D	D	E	C	C
HCM2kAvgQ:	9	17	4	3	5	2	3	15	9	8	9	4

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.620  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 43.3  
 Optimal Cycle: 81 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	25	25	10	25	25	10	28	28	10	28	28
Lanes:	1	0	1	1	0	1	2	0	1	1	0	1

Volume Module:

Base Vol:	463	887	997	1	609	281	423	458	456	6	4	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	463	887	997	1	609	281	423	458	456	6	4	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	487	934	1049	1	641	296	445	482	0	6	4	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	487	934	1049	1	641	296	445	482	0	6	4	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	487	934	1049	1	641	296	445	482	0	6	4	17

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.41	1.59	1.00	2.00	1.00	2.00	1.00	1.00	1.00	0.20	0.80
Final Sat.:	1800	2684	3016	1800	3800	1900	3400	1900	1900	1800	380	1520

Capacity Analysis Module:

Vol/Sat:	0.27	0.35	0.35	0.00	0.17	0.16	0.13	0.25	0.00	0.00	0.01	0.01
Crit Moves:	****			****			****			****		
Green Time:	44.6	59.3	59.3	13.1	27.8	27.8	21.6	38.0	0.0	11.5	28.0	28.0
Volume/Cap:	0.79	0.76	0.76	0.01	0.79	0.73	0.79	0.87	0.00	0.04	0.05	0.05
Delay/Veh:	45.2	30.9	30.9	52.6	53.5	54.1	59.4	57.1	0.0	54.3	40.5	40.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.2	30.9	30.9	52.6	53.5	54.1	59.4	57.1	0.0	54.3	40.5	40.5
LOS by Move:	D	C	C	D	D	D	E	E	A	D	D	D
HCM2kAvgQ:	20	23	23	0	14	12	11	21	0	0	1	1

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.697  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 9.8  
 Optimal Cycle: 42 Level Of Service: A  
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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	0	2	0	1	1	0	0	0	0	1	1

Volume Module:

Base Vol:	0	2288	0	27	1044	0	0	0	0	9	0	59
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2288	0	27	1044	0	0	0	0	9	0	59
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	2408	0	28	1099	0	0	0	0	9	0	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2408	0	28	1099	0	0	0	0	9	0	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	2408	0	28	1099	0	0	0	0	9	0	62

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3800	1900	1800	3800	0	0	0	0	1800	0	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.63	0.00	0.02	0.29	0.00	0.00	0.00	0.00	0.01	0.00	0.03
Crit Moves:	****			****						****		
Green Time:	0.0	74.0	0.0	10.0	84.0	0.0	0.0	0.0	0.0	10.0	0.0	10.0
Volume/Cap:	0.00	0.86	0.00	0.16	0.34	0.00	0.00	0.00	0.00	0.05	0.00	0.33
Delay/Veh:	0.0	12.0	0.0	41.6	1.9	0.0	0.0	0.0	0.0	40.8	0.0	42.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	12.0	0.0	41.6	1.9	0.0	0.0	0.0	0.0	40.8	0.0	42.9
LOS by Move:	A	B	A	D	A	A	A	A	A	D	A	D
HCM2kAvgQ:	0	29	0	1	4	0	0	0	0	0	0	2

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour With Mitigations

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.764  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 27.8  
 Optimal Cycle: 51 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18								
Lanes:	1	1	0	0	1	0	0	0	0	0	1	0	3	0	0	0	0	3	0	1

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Volume Module:

Base Vol:	626	0	750	0	0	0	244	1438	0	0	865	191
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	626	0	750	0	0	0	244	1438	0	0	865	191
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	659	0	789	0	0	0	257	1514	0	0	911	201
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	659	0	789	0	0	0	257	1514	0	0	911	201
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	659	0	789	0	0	0	257	1514	0	0	911	201

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Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	1.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	3600	0	1900	0	0	0	1800	5700	0	0	5700	1900

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Capacity Analysis Module:

Vol/Sat:	0.18	0.00	0.42	0.00	0.00	0.00	0.14	0.27	0.00	0.00	0.16	0.11
Crit Moves:	****						****			****		
Green Time:	54.4	0.0	54.4	0.0	0.0	0.0	18.7	39.6	0.0	0.0	20.9	20.9
Volume/Cap:	0.34	0.00	0.76	0.00	0.00	0.00	0.76	0.67	0.00	0.00	0.76	0.51
Delay/Veh:	12.8	0.0	21.2	0.0	0.0	0.0	48.5	25.6	0.0	0.0	40.2	36.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.8	0.0	21.2	0.0	0.0	0.0	48.5	25.6	0.0	0.0	40.2	36.0
LOS by Move:	B	A	C	A	A	A	D	C	A	A	D	D
HCM2kAvgQ:	6	0	20	0	0	0	10	13	0	0	11	6

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.810  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 48.7  
 Optimal Cycle: 90 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	31	31	10	31	31	10	31	31	10	31	31
Lanes:	2	0	2	0	1	1	0	1	1	0	1	1

Volume Module:

Base Vol:	613	1059	64	321	772	64	11	1000	455	4	155	107
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	613	1059	64	321	772	64	11	1000	455	4	155	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	645	1115	67	338	813	67	12	1053	479	4	163	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	645	1115	67	338	813	67	12	1053	479	4	163	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	645	1115	67	338	813	67	12	1053	479	4	163	113

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	1.85	0.15	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3400	3800	1900	1800	3509	291	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.19	0.29	0.04	0.19	0.23	0.23	0.01	0.28	0.25	0.00	0.04	0.06
Crit Moves:	****			****			****			****		
Green Time:	31.5	43.3	43.3	27.7	39.6	39.6	12.4	40.9	40.9	10.0	38.5	38.5
Volume/Cap:	0.78	0.88	0.11	0.88	0.76	0.76	0.07	0.88	0.80	0.03	0.14	0.20
Delay/Veh:	51.0	48.3	30.0	69.7	43.9	43.9	53.7	50.0	48.4	55.6	33.7	34.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	51.0	48.3	30.0	69.7	43.9	43.9	53.7	50.0	48.4	55.6	33.7	34.4
LOS by Move:	D	D	C	E	D	D	D	D	D	E	C	C
HCM2kAvgQ:	15	24	2	17	17	17	0	23	19	0	2	3

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 1, Access Alt. D  
 P.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.662  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 3.2  
 Optimal Cycle: 32 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	1	2176	9	0	1474	0	0	11	1	8	15	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	2176	9	0	1474	0	0	11	1	8	15	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	1	2291	9	0	1552	0	0	12	1	8	16	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	2291	9	0	1552	0	0	12	1	8	16	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	1	2291	9	0	1552	0	0	12	1	8	16	1

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.97	1.00	0.95	0.97	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Lanes:	0.00	1.99	0.01	0.00	2.00	0.00	0.00	1.00	1.00	0.35	0.65	1.00
Final Sat.:	2	3683	15	0	3700	0	0	1800	1900	626	1174	1900

Capacity Analysis Module:

Vol/Sat:	0.62	0.62	0.62	0.00	0.42	0.00	0.00	0.01	0.00	0.01	0.01	0.00
Crit Moves:	****									****		
Green Time:	86.0	86.0	86.0	0.0	86.0	0.0	0.0	10.0	10.0	10.0	10.0	10.0
Volume/Cap:	0.72	0.72	0.72	0.00	0.49	0.00	0.00	0.06	0.01	0.13	0.13	0.01
Delay/Veh:	3.4	3.4	3.4	0.0	1.8	0.0	0.0	40.9	40.5	41.4	41.4	40.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	3.4	3.4	3.4	0.0	1.8	0.0	0.0	40.9	40.5	41.4	41.4	40.5
LOS by Move:	A	A	A	A	A	A	A	D	D	D	D	D
HCM2kAvgQ:	15	15	15	0	6	0	0	0	0	1	1	0

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
A.M. Peak Hour Peak Hour With Mitigations

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Scenario Report

Scenario:	2030 Alt 2 AM mit
Command:	2030 Alt 2 AM
Volume:	2030 Alt 2 AM
Geometry:	Alternative C
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	2030

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.832  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 47.7  
 Optimal Cycle: 89 Level Of Service: D  
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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	10	29	29	10	29	29	10	32	32	10	32	32
Lanes:	1	0	2	0	2	0	1	0	2	0	2	0

Volume Module:

Base Vol:	84	134	521	102	893	120	22	323	219	1173	1002	74
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	84	134	521	102	893	120	22	323	219	1173	1002	74
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	88	141	548	107	940	126	23	340	231	1235	1055	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	141	548	107	940	126	23	340	231	1235	1055	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	88	141	548	107	940	126	23	340	231	1235	1055	78

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00
Lanes:	1.00	2.00	2.00	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1800	3800	3601	1800	3800	1900	1800	3800	1900	3400	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.05	0.04	0.15	0.06	0.25	0.07	0.01	0.09	0.12	0.36	0.28	0.04
Crit Moves:	****			****				****	****			
Green Time:	10.0	31.5	79.1	10.9	32.4	32.4	17.3	32.0	32.0	47.6	62.3	62.3
Volume/Cap:	0.64	0.15	0.25	0.71	0.99	0.27	0.10	0.36	0.49	0.99	0.58	0.09
Delay/Veh:	67.8	38.8	11.8	72.9	75.9	39.5	49.7	40.8	42.9	64.6	24.9	18.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	67.8	38.8	11.8	72.9	75.9	39.5	49.7	40.8	42.9	64.6	24.9	18.4
LOS by Move:	E	D	B	E	E	D	D	D	D	E	C	B
HCM2kAvgQ:	5	2	5	6	24	4	1	6	8	34	15	2

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.754  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 46.9  
 Optimal Cycle: 84 Level Of Service: D  
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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	3	0	1	1	3	0	1	0	1	1

Volume Module:

Base Vol:	295	426	11	26	1634	625	273	5	343	8	1	40
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	295	426	11	26	1634	625	273	5	343	8	1	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	311	448	12	27	1720	658	287	5	0	8	1	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	311	448	12	27	1720	658	287	5	0	8	1	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	311	448	12	27	1720	658	287	5	0	8	1	42

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.84	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	2.00	1.00	3.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	5700	1900	1800	3800	1900	4800	1900	1900	1800	1900	1900

Capacity Analysis Module:

Vol/Sat:	0.17	0.08	0.01	0.02	0.45	0.35	0.06	0.00	0.00	0.00	0.00	0.02
Crit Moves:	****			****			****			****		
Green Time:	23.2	61.9	61.9	22.1	60.8	60.8	10.0	28.0	0.0	10.0	28.0	28.0
Volume/Cap:	0.97	0.17	0.01	0.09	0.97	0.74	0.78	0.01	0.00	0.06	0.00	0.10
Delay/Veh:	94.4	19.4	18.0	45.6	48.0	31.5	69.0	40.1	0.0	55.8	40.0	41.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	94.4	19.4	18.0	45.6	48.0	31.5	69.0	40.1	0.0	55.8	40.0	41.0
LOS by Move:	F	B	B	D	D	C	E	D	A	E	D	D
HCM2kAvgQ:	18	3	0	1	39	22	6	0	0	0	0	1

Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.555  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 14.6  
 Optimal Cycle: 46 Level Of Service: B  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	0	2	0	1	0	0	0	0	0	1	0

Volume Module:

Base Vol:	0	585	10	130	1857	0	0	0	0	13	0	147
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	585	10	130	1857	0	0	0	0	13	0	147
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	616	11	137	1955	0	0	0	0	14	0	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	616	11	137	1955	0	0	0	0	14	0	155
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	616	11	137	1955	0	0	0	0	14	0	155

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3800	1900	1800	3800	0	0	0	0	1800	0	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.16	0.01	0.08	0.51	0.00	0.00	0.00	0.00	0.01	0.00	0.08
Crit Moves:					****					****		
Green Time:	0.0	22.3	22.3	61.6	83.9	0.0	0.0	0.0	0.0	10.1	0.0	10.1
Volume/Cap:	0.00	0.73	0.02	0.12	0.61	0.00	0.00	0.00	0.00	0.08	0.00	0.81
Delay/Veh:	0.0	39.3	30.4	8.0	3.0	0.0	0.0	0.0	0.0	40.9	0.0	65.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	39.3	30.4	8.0	3.0	0.0	0.0	0.0	0.0	40.9	0.0	65.6
LOS by Move:	A	D	C	A	A	A	A	A	A	D	A	E
HCM2kAvgQ:	0	10	0	2	11	0	0	0	0	0	0	7

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.759  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 24.3  
 Optimal Cycle: 50 Level Of Service: C  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	2	0	3

Volume Module:

Base Vol:	0	0	0	288	0	439	0	313	798	805	1661	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	288	0	439	0	313	798	805	1661	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	303	0	462	0	329	840	847	1748	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	303	0	462	0	329	840	847	1748	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	303	0	462	0	329	840	847	1748	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.89	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	2.00	2.00	3.00	0.00
Final Sat.:	0	0	0	1800	0	1900	0	3800	3800	3400	5700	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.17	0.00	0.24	0.00	0.09	0.22	0.25	0.31	0.00
Crit Moves:						****			****	****		
Green Time:	0.0	0.0	0.0	32.0	0.0	32.0	0.0	29.1	29.1	32.8	62.0	0.0
Volume/Cap:	0.00	0.00	0.00	0.53	0.00	0.76	0.00	0.30	0.76	0.76	0.50	0.00
Delay/Veh:	0.0	0.0	0.0	28.7	0.0	36.0	0.0	27.5	34.5	33.1	10.5	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	28.7	0.0	36.0	0.0	27.5	34.5	33.1	10.5	0.0
LOS by Move:	A	A	A	C	A	D	A	C	C	C	B	A
HCM2kAvgQ:	0	0	0	8	0	14	0	4	13	15	10	0

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.676  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 23.1  
 Optimal Cycle: 44 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18								
Lanes:	1	1	0	0	1	0	0	0	0	0	1	0	3	0	0	0	0	3	0	1

Volume Module:

Base Vol:	850	0	490	0	0	0	113	488	0	0	1615	293
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	850	0	490	0	0	0	113	488	0	0	1615	293
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	895	0	516	0	0	0	119	514	0	0	1700	308
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	895	0	516	0	0	0	119	514	0	0	1700	308
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	895	0	516	0	0	0	119	514	0	0	1700	308

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	1.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	3600	0	1900	0	0	0	1800	5700	0	0	5700	1900

Capacity Analysis Module:

Vol/Sat:	0.25	0.00	0.27	0.00	0.00	0.00	0.07	0.09	0.00	0.00	0.30	0.16
Crit Moves:	****						****			****		
Green Time:	40.0	0.0	40.0	0.0	0.0	0.0	10.0	54.0	0.0	0.0	44.0	44.0
Volume/Cap:	0.62	0.00	0.68	0.00	0.00	0.00	0.66	0.17	0.00	0.00	0.68	0.37
Delay/Veh:	24.8	0.0	27.2	0.0	0.0	0.0	52.2	11.7	0.0	0.0	23.1	19.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.8	0.0	27.2	0.0	0.0	0.0	52.2	11.7	0.0	0.0	23.1	19.0
LOS by Move:	C	A	C	A	A	A	D	B	A	A	C	B
HCM2kAvgQ:	12	0	14	0	0	0	5	3	0	0	15	6

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.720  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 47.6  
 Optimal Cycle: 90 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	31	31	10	31	31	10	31	31	10	31	31
Lanes:	2	0	2	0	1	1	0	1	0	1	0	2

Volume Module:

Base Vol:	330	223	49	207	690	11	3	450	424	441	1246	76
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	330	223	49	207	690	11	3	450	424	441	1246	76
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	347	235	52	218	726	12	3	474	446	464	1312	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	347	235	52	218	726	12	3	474	446	464	1312	80
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	347	235	52	218	726	12	3	474	446	464	1312	80

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	1.97	0.03	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3400	3800	1900	1800	3740	60	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.10	0.06	0.03	0.12	0.19	0.19	0.00	0.12	0.23	0.26	0.35	0.04
Crit Moves:	****			****			****			****		
Green Time:	14.7	31.0	31.0	17.9	34.3	34.3	13.3	34.8	34.8	38.2	59.7	59.7
Volume/Cap:	0.90	0.26	0.11	0.88	0.74	0.74	0.02	0.47	0.88	0.88	0.75	0.09
Delay/Veh:	81.1	40.3	38.9	82.6	46.6	46.6	52.5	40.1	61.3	58.9	30.9	19.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	81.1	40.3	38.9	82.6	46.6	46.6	52.5	40.1	61.3	58.9	30.9	19.9
LOS by Move:	F	D	D	F	D	D	D	D	E	E	C	B
HCM2kAvgQ:	11	4	2	12	15	15	0	8	20	21	22	2

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 A.M. Peak Hour Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec):           100                                   Critical Vol./Cap.(X):           0.610  
 Loss Time (sec):       4 (Y+R=4.0 sec)   Average Delay (sec/veh):       5.1  
 Optimal Cycle:         28                                 Level Of Service:               A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	1	0	1	0	0	0	1	0	0	1	0

Volume Module:

Base Vol:	0	678	24	115	1762	0	0	26	0	46	29	92
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	678	24	115	1762	0	0	26	0	46	29	92
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	714	25	121	1855	0	0	27	0	48	31	97
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	714	25	121	1855	0	0	27	0	48	31	97
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	714	25	121	1855	0	0	27	0	48	31	97

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.97	1.00	0.95	0.97	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Lanes:	0.00	1.93	0.07	0.13	1.87	0.00	0.00	1.00	1.00	0.61	0.39	1.00
Final Sat.:	0	3577	127	226	3467	0	0	1800	1900	1104	696	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.20	0.20	0.53	0.53	0.00	0.00	0.02	0.00	0.04	0.04	0.05
Crit Moves:				****						****		
Green Time:	0.0	86.0	86.0	86.0	86.0	0.0	0.0	10.0	0.0	10.0	10.0	10.0
Volume/Cap:	0.00	0.23	0.23	0.62	0.62	0.00	0.00	0.15	0.00	0.44	0.44	0.51
Delay/Veh:	0.0	1.3	1.3	2.5	2.5	0.0	0.0	41.5	0.0	44.1	44.1	45.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.3	1.3	2.5	2.5	0.0	0.0	41.5	0.0	44.1	44.1	45.0
LOS by Move:	A	A	A	A	A	A	A	D	A	D	D	D
HCM2kAvgQ:	0	2	2	10	10	0	0	1	0	3	3	4

Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
P.M. Peak Hour With Mitigations

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Scenario Report

Scenario:	2030 Alt 2 PM mit
Command:	2030 Alt 2 PM
Volume:	2030 Alt 2 PM
Geometry:	Alternative C
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	2030

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #1 Palm Av/5th St

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.772  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 35.1  
 Optimal Cycle: 89 Level Of Service: D  
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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	10	29	29	10	29	29	10	32	32	10	32	32
Lanes:	1	0	2	0	2	0	1	0	2	0	2	0

Volume Module:

Base Vol:	196	974	1611	61	325	67	76	785	275	335	535	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	196	974	1611	61	325	67	76	785	275	335	535	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	206	1025	1696	64	342	71	80	826	289	353	563	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	206	1025	1696	64	342	71	80	826	289	353	563	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	206	1025	1696	64	342	71	80	826	289	353	563	132

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00
Lanes:	1.00	2.00	2.00	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1800	3800	3601	1800	3800	1900	1800	3800	1900	3400	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.11	0.27	0.47	0.04	0.09	0.04	0.04	0.22	0.15	0.10	0.15	0.07
Crit Moves:			****	****				****		****		
Green Time:	23.7	59.7	76.6	10.0	46.1	46.1	12.4	35.4	35.4	16.9	39.8	39.8
Volume/Cap:	0.63	0.59	0.80	0.46	0.25	0.10	0.46	0.80	0.56	0.80	0.48	0.23
Delay/Veh:	53.0	26.5	22.9	59.9	29.9	28.2	57.6	48.5	42.0	64.8	37.0	33.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.0	26.5	22.9	59.9	29.9	28.2	57.6	48.5	42.0	64.8	37.0	33.8
LOS by Move:	D	C	C	E	C	C	E	D	D	E	D	C
HCM2kAvgQ:	9	15	29	3	5	2	4	17	10	10	9	4

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 Note: Queue reported is the number of cars per lane.  
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Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour With Mitigations

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #2 Palm Av/3rd St

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.696  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 49.2  
 Optimal Cycle: 84 Level Of Service: D

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1	0	3	0	1	1	3	0	1	0	1	1

Volume Module:

Base Vol:	463	1885	4	1	653	281	880	1	456	6	4	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	463	1885	4	1	653	281	880	1	456	6	4	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	487	1984	4	1	687	296	926	1	0	6	4	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	487	1984	4	1	687	296	926	1	0	6	4	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	487	1984	4	1	687	296	926	1	0	6	4	17

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.84	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	2.00	1.00	3.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	5700	1900	1800	3800	1900	4800	1900	1900	1800	1900	1900

Capacity Analysis Module:

Vol/Sat:	0.27	0.35	0.00	0.00	0.18	0.16	0.19	0.00	0.00	0.00	0.00	0.01
Crit Moves:	****			****			****			****		
Green Time:	38.5	54.5	54.5	12.0	28.0	28.0	27.5	40.9	0.0	14.6	28.0	28.0
Volume/Cap:	0.91	0.83	0.01	0.01	0.84	0.72	0.91	0.00	0.00	0.03	0.01	0.04
Delay/Veh:	64.3	36.2	22.0	53.6	56.6	53.6	62.4	30.6	0.0	51.5	40.1	40.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	64.3	36.2	22.0	53.6	56.6	53.6	62.4	30.6	0.0	51.5	40.1	40.4
LOS by Move:	E	D	C	D	E	D	E	C	A	D	D	D
HCM2kAvgQ:	23	25	0	0	16	12	18	0	0	0	0	1

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

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Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour With Mitigations

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #3 Alabama St/Robertson's Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.724  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 10.3  
 Optimal Cycle: 45 Level Of Service: B  
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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	0	0	2	0	1	0	1	0	2	0	0	0

Volume Module:

Base Vol:	0	2288	1	71	1044	0	0	0	0	9	0	64
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2288	1	71	1044	0	0	0	0	9	0	64
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	2408	1	75	1099	0	0	0	0	9	0	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2408	1	75	1099	0	0	0	0	9	0	67
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	2408	1	75	1099	0	0	0	0	9	0	67

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3800	1900	1800	3800	0	0	0	0	1800	0	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.63	0.00	0.04	0.29	0.00	0.00	0.00	0.00	0.01	0.00	0.04
Crit Moves:	****			****						****		
Green Time:	0.0	74.0	74.0	10.0	84.0	0.0	0.0	0.0	0.0	10.0	0.0	10.0
Volume/Cap:	0.00	0.86	0.00	0.42	0.34	0.00	0.00	0.00	0.00	0.05	0.00	0.35
Delay/Veh:	0.0	12.0	3.4	43.8	1.9	0.0	0.0	0.0	0.0	40.8	0.0	43.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	12.0	3.4	43.8	1.9	0.0	0.0	0.0	0.0	40.8	0.0	43.1
LOS by Move:	A	B	A	D	A	A	A	A	A	D	A	D
HCM2kAvgQ:	0	29	0	3	4	0	0	0	0	0	0	2

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

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Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour With Mitigations

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 SR-30 SB Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.673  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 20.0  
 Optimal Cycle: 39 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	13	13	10	13	13
Lanes:	0	0	0	0	1	0	0	0	2	2	0	3

Volume Module:

Base Vol:	0	0	0	251	0	134	0	1432	950	504	997	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	251	0	134	0	1432	950	504	997	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	264	0	141	0	1507	1000	531	1049	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	264	0	141	0	1507	1000	531	1049	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	264	0	141	0	1507	1000	531	1049	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.89	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.40	1.60	2.00	3.00	0.00
Final Sat.:	0	0	0	1800	0	1900	0	4569	3031	3400	5700	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.15	0.00	0.07	0.00	0.33	0.33	0.16	0.18	0.00
Crit Moves:				****			****			****		
Green Time:	0.0	0.0	0.0	21.8	0.0	21.8	0.0	49.0	49.0	23.2	72.2	0.0
Volume/Cap:	0.00	0.00	0.00	0.67	0.00	0.34	0.00	0.67	0.67	0.67	0.26	0.00
Delay/Veh:	0.0	0.0	0.0	40.4	0.0	33.5	0.0	19.9	19.9	37.3	4.8	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	40.4	0.0	33.5	0.0	19.9	19.9	37.3	4.8	0.0
LOS by Move:	A	A	A	D	A	C	A	B	B	D	A	A
HCM2kAvgQ:	0	0	0	9	0	4	0	15	15	9	4	0

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #8 NB-30 Ramps/5th St

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.771  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 28.0  
 Optimal Cycle: 52 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	10	10	10	10	10	10	10	18	18	10	18	18								
Lanes:	1	1	0	0	1	0	0	0	0	0	1	0	3	0	0	0	0	3	0	1

Volume Module:

Base Vol:	619	0	762	0	0	0	239	1444	0	0	882	196
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	619	0	762	0	0	0	239	1444	0	0	882	196
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	652	0	802	0	0	0	252	1520	0	0	928	206
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	652	0	802	0	0	0	252	1520	0	0	928	206
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	652	0	802	0	0	0	252	1520	0	0	928	206

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	1.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	3600	0	1900	0	0	0	1800	5700	0	0	5700	1900

Capacity Analysis Module:

Vol/Sat:	0.18	0.00	0.42	0.00	0.00	0.00	0.14	0.27	0.00	0.00	0.16	0.11
Crit Moves:	****						****			****		
Green Time:	54.7	0.0	54.7	0.0	0.0	0.0	18.1	39.3	0.0	0.0	21.1	21.1
Volume/Cap:	0.33	0.00	0.77	0.00	0.00	0.00	0.77	0.68	0.00	0.00	0.77	0.51
Delay/Veh:	12.6	0.0	21.3	0.0	0.0	0.0	49.7	26.0	0.0	0.0	40.3	36.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.6	0.0	21.3	0.0	0.0	0.0	49.7	26.0	0.0	0.0	40.3	36.0
LOS by Move:	B	A	C	A	A	A	D	C	A	A	D	D
HCM2kAvgQ:	6	0	21	0	0	0	10	14	0	0	11	6

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

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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #9 Boulder Av/5th St

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.811  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 49.2  
 Optimal Cycle: 90 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	31	31	10	31	31	10	31	31	10	31	31
Lanes:	2	0	2	0	1	1	0	1	1	0	1	1

Volume Module:

Base Vol:	636	1059	64	321	773	64	11	1001	472	4	155	107
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	636	1059	64	321	773	64	11	1001	472	4	155	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	669	1115	67	338	814	67	12	1054	497	4	163	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	669	1115	67	338	814	67	12	1054	497	4	163	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	669	1115	67	338	814	67	12	1054	497	4	163	113

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	1.85	0.15	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3400	3800	1900	1800	3509	291	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.20	0.29	0.04	0.19	0.23	0.23	0.01	0.28	0.26	0.00	0.04	0.06
Crit Moves:	****			****			****			****		
Green Time:	32.1	43.3	43.3	27.7	38.9	38.9	12.4	41.0	41.0	10.0	38.5	38.5
Volume/Cap:	0.80	0.88	0.11	0.88	0.77	0.77	0.07	0.88	0.83	0.03	0.14	0.20
Delay/Veh:	51.2	48.3	30.0	69.8	44.9	44.9	53.7	50.0	50.8	55.6	33.7	34.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	51.2	48.3	30.0	69.8	44.9	44.9	53.7	50.0	50.8	55.6	33.7	34.4
LOS by Move:	D	D	C	E	D	D	D	D	D	E	C	C
HCM2kAvgQ:	16	24	2	17	17	17	0	23	20	0	2	3

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 Note: Queue reported is the number of cars per lane.  
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 Upper Santa Ana River Wash  
 Year 2030 Conditions -- Land Use Alt. 2, Access Alt. C  
 P.M. Peak Hour With Mitigations  
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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Intersection #10 Orange St/Cemex Acc.

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.654  
 Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 3.2  
 Optimal Cycle: 31 Level Of Service: A  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Permitted			Permitted			Permitted			Permitted						
Rights:	Include			Include			Include			Include						
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10				
Lanes:	0	1	0	1	0	0	0	1	0	0	1	0	1	0	0	1

Volume Module:

Base Vol:	1	2176	10	17	1474	0	0	2	1	9	0	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	2176	10	17	1474	0	0	2	1	9	0	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	1	2291	11	18	1552	0	0	2	1	9	0	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	2291	11	18	1552	0	0	2	1	9	0	25
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	1	2291	11	18	1552	0	0	2	1	9	0	25

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.97	1.00	0.95	0.97	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Lanes:	0.00	1.99	0.01	0.02	1.98	0.00	0.00	1.00	1.00	1.00	0.00	1.00
Final Sat.:	2	3682	17	42	3657	0	0	1800	1900	1800	0	1900

Capacity Analysis Module:

Vol/Sat:	0.62	0.62	0.62	0.42	0.42	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Crit Moves:	****									****		
Green Time:	86.0	86.0	86.0	86.0	86.0	0.0	0.0	10.0	10.0	10.0	0.0	10.0
Volume/Cap:	0.72	0.72	0.72	0.49	0.49	0.00	0.00	0.01	0.01	0.05	0.00	0.13
Delay/Veh:	3.4	3.4	3.4	1.8	1.8	0.0	0.0	40.6	40.5	40.8	0.0	41.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	3.4	3.4	3.4	1.8	1.8	0.0	0.0	40.6	40.5	40.8	0.0	41.4
LOS by Move:	A	A	A	A	A	A	A	D	D	D	A	D
HCM2kAvgQ:	15	15	15	6	6	0	0	0	0	0	0	1

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