

Appendix I

High-Occupancy Toll (HOT) Lane Analysis

Table A: Comparison of Southbound Only Level of Service

	Southbound Level of Service															
	Southbound Mixed Flow Lanes				Transit Lane Only				Weighted Average ¹				Current Configuration			
	AM Delay	LOS	PM Delay	LOS	AM Delay	LOS	PM Delay	LOS	AM Delay	LOS	PM Delay	LOS	AM Delay	LOS	PM Delay	LOS
Tier 4A																
19th Avenue/Holloway	70.6	E	91.1	F	8.1	A	7.6	A	55.0	D	70.2	E	93.4	F	127.0	F
19th Avenue/Crespi	60.9	E	56.5	E	4.9	A	2.5	A	46.9	D	43.0	D	72.9	E	67.5	E
Junipero Serra/19th Ave	51.9	D	54.1	D	6.5	A	5.8	A	40.6	D	42.0	D	80.9	F	132.2	F
Tier 4B																
19th Avenue/Holloway	70.6	E	89.5	F	8.1	A	7.5	A	55.0	D	69.0	E	44.1	D	80.4	F
19th Avenue/Crespi	65.4	E	64.4	E	4.9	A	2.5	A	50.3	D	48.9	D	72.9	E	67.5	E
Junipero Serra/19th Ave	52.2	D	54.1	D	6.6	A	5.8	A	40.8	D	42.0	D	81.2	F	132.2	F
Tier 4C																
19th Avenue/Holloway	163.0	F	212.0	F	13.1	B	12.1	B	125.5	F	162.0	F	44.1	D	80.4	F
19th Avenue/Crespi	102.0	F	123.0	F	7.0	A	6.6	A	78.3	E	93.9	F	19.1	B	24.4	C
Junipero Serra/19th Ave	62.0	E	78.7	E	10.8	B	10.1	B	49.2	D	61.6	E	23.7	C	41.5	D

Notes:

¹ Weighted LOS average of southbound 19th Avenue mixed-flow lanes and southbound 19th Avenue transit lane (HOT).

Table B: Comparison of Overall Intersection Level of Service

	Overall Intersection Level of Service							
	HOT Configuration ²				Current Configuration			
	AM Delay	LOS	PM Delay	LOS	AM Delay	LOS	PM Delay	LOS
Tier 4A								
19th Avenue/Holloway	40.2	D	68.2	E	57.9	E	94.3	F
19th Avenue/Crespi	61.5	E	60.7	E	75.8	E	74.7	E
Junipero Serra/19th Ave	54.3	D	70.1	E	68.8	E	102.0	F
Tier 4B								
19th Avenue/Holloway	67.2	E	85.6	F	62.2	E	94.9	F
19th Avenue/Crespi	61.5	E	60.7	E	75.8	E	74.7	E
Junipero Serra/19th Ave	54.5	D	70.1	E	69.1	E	102.0	F
Tier 4C								
19th Avenue/Holloway	99.3	F	123.2	F	61.5	E	85.1	F
19th Avenue/Crespi	105.8	F	124.7	F	74.1	E	87.1	F
Junipero Serra/19th Ave	66.6	E	97.6	F	57.4	E	90.6	F

Table C: Southbound 19th Avenue Mixed-Flow vs. HOT Lane Volumes

	Overall Intersection Level of Service			
	HOT Lane Volumes		Southbound Mixed Flow Volumes	
	AM	PM	AM	PM
Tier 4A				
19th Avenue/Holloway	89	180	3250	3576
19th Avenue/Crespi	13	6	3444	3838
Junipero Serra/19th Ave	600	600	2864	2945
Tier 4B				
19th Avenue/Holloway	89	180	3250	3576
19th Avenue/Crespi	13	6	3444	3838
Junipero Serra/19th Ave	600	600	2864	2945
Tier 4C				
19th Avenue/Holloway	69	116	3270	3640
19th Avenue/Crespi	13	6	3425	3838
Junipero Serra/19th Ave	600	600	2964	2945

Analysis for Non-HOT Lanes

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19th Ave CS
Tier 4A - HOT Analysis

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

Intersection #1070 Junipero Serra Blvd./19th Avenue

Cycle (sec): 110 Critical Vol./Cap.(X): 0.916
Loss Time (sec): 0 Average Delay (sec/veh): 55.6
Optimal Cycle: 180 Level Of Service: E

Street Name: Junipero Serra Blvd. 19th Avenue
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 Permitted Permitted
Rights: Include Ignore Ovl Include
Min. Green: 46 46 46 18 18 18 9 9 9 9 9 9
Y+R: 17.0 17.0 17.0 17.0 17.0 17.0 17.0 17.0 17.0 17.0 17.0 17.0
Lanes: 3 0 1 1 0 0 0 4 0 1 0 0 1 0 3 0 0 0 1 0

Volume Module:
Base Vol: 2555 2016 12 0 1320 4 0 99 3464 0 63 85
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 2555 2016 12 0 1320 4 0 99 3464 0 63 85
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
HOT: 0 0 0 0 0 0 0 0 -600 0 0 0
Initial Fut: 2555 2016 12 0 1320 4 0 99 2864 0 63 85
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.00 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 2607 2057 12 0 1347 0 0 101 2922 0 64 87
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2607 2057 12 0 1347 0 0 101 2922 0 64 87
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2607 2057 12 0 1347 0 0 101 2922 0 64 87

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.01 0.95 0.95 1.00 0.91 1.00 1.00 1.00 0.71 1.00 0.92 0.92
Lanes: 3.00 1.99 0.01 0.00 4.00 1.00 0.00 1.00 3.00 0.00 0.43 0.57
Final Sat.: 5778 3585 21 0 6916 1900 0 1900 4050 0 747 1007

Capacity Analysis Module:
Vol/Sat: 0.45 0.57 0.57 0.00 0.19 0.00 0.00 0.05 0.72 0.00 0.09 0.09
Crit Moves: ****
Green/Cycle: 0.50 0.50 0.50 0.21 0.21 0.21 0.12 0.12 0.67 0.12 0.12 0.12
Volume/Cap: 0.91 1.16 1.16 0.00 0.94 0.00 0.00 0.43 1.08 0.00 0.69 0.69
Delay/Veh: 25.2 98.8 98.8 0.0 55.6 0.0 0.0 50.2 51.9 0.0 63.0 63.0
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: 25.2 98.8 98.8 0.0 55.6 0.0 0.0 50.2 51.9 0.0 63.0 63.0
LOS by Move: C F F A E A A D D A E E
HCM2kAvgQ: 30 57 57 0 16 0 0 3 52 0 6 6

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

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19th Ave CS
Tier 4A - HOT Analysis

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

Intersection #1160 19th Avenue/Holloway Avenue

Cycle (sec): 110 Critical Vol./Cap.(X): 0.834
Loss Time (sec): 0 Average Delay (sec/veh): 46.0
Optimal Cycle: 87 Level Of Service: D

Street Name: 19th Avenue Holloway Avenue
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: 50 50 50 48 48 48 31 31 31 31 31 31
Y+R: 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0
Lanes: 0 0 2 1 0 0 0 3 0 1 0 1 0 1 0 0 1 0 1 0

Volume Module:
Base Vol: 0 2630 133 0 3339 166 132 210 149 35 407 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 2630 133 0 3339 166 132 210 149 35 407 53
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Transit+cre: 0 0 0 0 -89 0 0 0 0 0 0 0
Initial Fut: 0 2630 133 0 3250 166 132 210 149 35 407 53
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 0 2684 136 0 3316 169 135 214 152 36 415 54
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 2684 136 0 3316 169 135 214 152 36 415 54
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 2684 136 0 3316 169 135 214 152 36 415 54

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.95 0.90 1.00 0.96 0.85 0.59 0.59 0.59 0.82 0.82 0.82
Lanes: 0.00 2.85 0.15 0.00 3.00 1.00 0.54 0.85 0.61 0.14 1.65 0.21
Final Sat.: 0 5136 260 0 5446 1615 598 951 675 221 2570 335

Capacity Analysis Module:
Vol/Sat: 0.00 0.52 0.52 0.00 0.61 0.10 0.23 0.23 0.23 0.16 0.16 0.16
Crit Moves: ****
Green/Cycle: 0.55 0.55 0.55 0.55 0.55 0.55 0.35 0.35 0.35 0.35 0.35 0.35
Volume/Cap: 0.00 0.95 0.95 0.00 1.11 0.19 0.65 0.65 0.65 0.46 0.46 0.46
Delay/Veh: 0.0 24.3 24.3 0.0 70.6 9.0 34.3 34.3 34.3 29.3 29.3 29.3
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 24.3 24.3 0.0 70.6 9.0 34.3 34.3 34.3 29.3 29.3 29.3
LOS by Move: A C C A E A C C C C C C
HCM2kAvgQ: 0 30 28 0 59 2 8 8 8 7 7 7

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

19th Ave CS
Tier 4A - HOT Analysis

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

Intersection #1170 19th Avenue/Crespi Drive

Cycle (sec): 110 Critical Vol./Cap.(X): 0.734
Loss Time (sec): 0 Average Delay (sec/veh): 65.4
Optimal Cycle: 75 Level Of Service: E

Street Name:	19th Avenue			Crespi Drive									
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			Split Phase			Split Phase			
Rights:	Include			Ignore			Include			Include			
Min. Green:	48	48	48	53	53	53	22	22	22	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	0	0	3	0	0	1	1	0	0	1	0	0	0

Volume Module:

Base Vol:	0	2637	0	0	3444	80	106	0	108	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2637	0	0	3444	80	106	0	108	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Transit:	0	0	0	0	-19	0	0	0	0	0	0	0
Initial Fut:	0	2637	0	0	3425	80	106	0	108	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.00	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	0	2691	0	0	3495	0	108	0	110	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2691	0	0	3495	0	108	0	110	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	2691	0	0	3495	0	108	0	110	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	0.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	5187	0	0	5187	1900	1805	0	1615	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.52	0.00	0.00	0.67	0.00	0.06	0.00	0.07	0.00	0.00	0.00
Crit Moves:	****											
Green/Cycle:	0.47	0.47	0.47	0.61	0.61	0.61	0.29	0.29	0.29	0.00	0.00	0.00
Volume/Cap:	0.00	1.10	0.00	0.00	1.10	0.00	0.21	0.00	0.23	0.00	0.00	0.00
Delay/Veh:	0.0	74.0	0.0	0.0	60.9	0.0	30.2	0.0	30.7	0.0	0.0	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	74.0	0.0	0.0	60.9	0.0	30.2	0.0	30.7	0.0	0.0	0.0
LOS by Move:	A	E	A	A	E	A	C	A	C	A	A	A
HCM2kAvgQ:	0	48	0	0	55	0	3	0	3	0	0	0

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

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19th Ave CS
Tier 4A - HOT Analysis

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

Intersection #1070 Junipero Serra Blvd./19th Avenue

Cycle (sec): 120 Critical Vol./Cap.(X): 1.110
Loss Time (sec): 17 Average Delay (sec/veh): 69.9
Optimal Cycle: 180 Level Of Service: E

Street Name:	Junipero Serra Blvd.				19th Avenue			
Approach:	North Bound		South Bound		East Bound		West Bound	
Movement:	L	T	R	L	T	R	L	T
Control:	Split Phase		Split Phase		Permitted		Permitted	
Rights:	Ignore		Ignore		Ovl		Include	
Min. Green:	54	54	54	20	20	20	9	9
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	3	0	1	0	0	0	1	0

Volume Module:

Base Vol:	2719	2037	29	0	1429	19	0	161	3545	0	51	80
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2719	2037	29	0	1429	19	0	161	3545	0	51	80
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
HOT:	0	0	0	0	0	0	0	0	-600	0	0	0
Initial Fut:	2719	2037	29	0	1429	19	0	161	2945	0	51	80
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.00	0.98	0.98	0.00	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	2774	2079	0	0	1458	0	0	164	3005	0	52	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2774	2079	0	0	1458	0	0	164	3005	0	52	82
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2774	2079	0	0	1458	0	0	164	3005	0	52	82

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	1.00	0.91	1.00	1.00	1.00	0.71	1.00	0.92	0.92
Lanes:	3.00	2.00	0.00	0.00	4.00	1.00	0.00	1.00	3.00	0.00	0.39	0.61
Final Sat.:	5253	3610	0	0	6916	1900	0	1900	4050	0	679	1065

Capacity Analysis Module:

Vol/Sat:	0.53	0.58	0.00	0.00	0.21	0.00	0.00	0.09	0.74	0.00	0.08	0.08
Crit Moves:	****											
Green/Cycle:	0.50	0.50	0.50	0.20	0.20	0.20	0.14	0.14	0.68	0.14	0.14	0.14
Volume/Cap:	1.06	1.15	0.00	0.00	1.05	0.00	0.00	0.62	1.09	0.00	0.55	0.55
Delay/Veh:	57.8	98.1	0.0	0.0	87.9	0.0	0.0	58.9	54.1	0.0	56.6	56.6
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:	57.8	98.1	0.0	0.0	87.9	0.0	0.0	58.9	54.1	0.0	56.6	56.6
LOS by Move:	E	F	A	A	F	A	A	E	D	A	E	E
HCM2kAvgQ:	46	60	0	0	22	0	0	6	57	0	5	5

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

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19th Ave CS
Tier 4A - HOT Analysis

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

Intersection #1160 19th Avenue/Holloway Avenue

Cycle (sec): 120 Critical Vol./Cap.(X): 1.001
Loss Time (sec): 0 Average Delay (sec/veh): 74.4
Optimal Cycle: 180 Level Of Service: E

Street Name:	19th Avenue				Holloway Avenue			
Approach:	North Bound		South Bound		East Bound		West Bound	
Movement:	L	T	R	L	T	R	L	T
Control:	Permitted		Permitted		Permitted		Permitted	
Rights:	Include		Include		Include		Include	
Min. Green:	0	59	59	0	59	59	33	33
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	1	0	0	0	1

Volume Module:

Base Vol:	0	2823	130	0	3756	250	161	221
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2823	130	0	3756	250	161	221
Added Vol:	0	0	0	0	0	0	0	0
Transit+cre:	0	0	0	0	-180	0	0	0
Initial Fut:	0	2823	130	0	3576	250	161	221
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	0	2881	133	0	3649	255	164	226
Reduct Vol:	0	0	0	0	0	0	0	0
Reduced Vol:	0	2881	133	0	3649	255	164	226
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	2881	133	0	3649	255	164	226

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.90	1.00	0.96	0.85	0.48	0.48
Lanes:	0.00	2.86	0.14	0.00	3.00	1.00	0.60	0.82
Final Sat.:	0	5159	238	0	5446	1615	547	751

Capacity Analysis Module:

Vol/Sat:	0.00	0.56	0.56	0.00	0.67	0.16	0.30	0.30
Crit Moves:	****							
Green/Cycle:	0.58	0.58	0.58	0.58	0.58	0.58	0.26	0.26
Volume/Cap:	0.00	0.97	0.97	0.00	1.16	0.27	1.15	1.15
Delay/Veh:	0.0	25.0	25.0	0.0	91.1	8.6	132.3	132
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	25.0	25.0	0.0	91.1	8.6	132.3	132
LOS by Move:	A	C	C	A	F	A	F	F
HCM2kAvgQ:	0	36	34	0	73	3	18	18

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

19th Ave CS
Tier 4A - HOT Analysis

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

Intersection #1170 19th Avenue/Crespi Drive

Cycle (sec): 120 Critical Vol./Cap.(X): 0.788
Loss Time (sec): 0 Average Delay (sec/veh): 64.4
Optimal Cycle: 88 Level Of Service: E

Street Name:	19th Avenue				Crespi Drive				
Approach:	North Bound		South Bound		East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R
Control:	Permitted		Permitted		Split Phase		Split Phase		
Rights:	Include		Ignore		Ignore		Include		
Min. Green:	59	59	0	0	64	64	21	0	21
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	3	0	0	0	3	0	1

Volume Module:	North Bound		South Bound		East Bound		West Bound	
Base Vol:	0	2870	0	0	3850	191	59	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2870	0	0	3850	191	59	0
Added Vol:	0	0	0	0	0	0	0	0
Transit:	0	0	0	0	-12	0	0	0
Initial Fut:	0	2870	0	0	3838	191	59	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.00	0.98	0.98
PHF Volume:	0	2929	0	0	3916	0	60	0
Reduct Vol:	0	0	0	0	0	0	0	0
Reduced Vol:	0	2929	0	0	3916	0	60	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
FinalVolume:	0	2929	0	0	3916	0	60	0

Saturation Flow Module:	North Bound		South Bound		East Bound		West Bound	
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.95	1.00
Lanes:	0.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00
Final Sat.:	0	5187	0	0	5187	1900	1805	0

Capacity Analysis Module:	North Bound		South Bound		East Bound		West Bound	
Vol/Sat:	0.00	0.56	0.00	0.00	0.76	0.00	0.03	0.00
Crit Moves:	0.51		0.69		0.28		0.00	
Green/Cycle:	0.51	0.51	0.51	0.69	0.69	0.69	0.28	0.28
Volume/Cap:	0.00	1.11	0.00	0.00	1.10	0.00	0.12	0.00
Delay/Veh:	0.0	75.6	0.0	0.0	56.5	0.0	33.1	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	75.6	0.0	0.0	56.5	0.0	33.1	0.0
LOS by Move:	A	E	A	A	E	A	C	A
HCM2kAvgQ:	0	55	0	0	66	0	2	0

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

19th Ave CS
Tier 4B - HOT Mixed Flow Lanes Analysis

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1070 Junipero Serra Blvd./19th Avenue

Cycle (sec): 110 Critical Vol./Cap.(X): 0.916
Loss Time (sec): 0 Average Delay (sec/veh): 55.8
Optimal Cycle: 180 Level Of Service: E

Street Name:	Junipero Serra Blvd.				19th Avenue			
Approach:	North Bound		South Bound		East Bound		West Bound	
Movement:	L	T	R	L	T	R	L	T
Control:	Split Phase		Split Phase		Permitted		Permitted	
Rights:	Include		Ignore		Ovl		Include	
Min. Green:	46	46	46	18	18	18	9	9
Y+R:	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Lanes:	3	0	1	0	0	0	4	0

Volume Module:	Junipero Serra Blvd.				19th Avenue			
	L	T	R	L	T	R	L	T
Base Vol:	2555	2016	12	0	1320	4	0	101
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2555	2016	12	0	1320	4	0	101
Added Vol:	0	0	0	0	0	0	0	0
HOT:	0	0	0	0	0	0	0	0
Initial Fut:	2555	2016	12	0	1320	4	0	101
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	2607	2057	12	0	1347	0	0	103
Reduct Vol:	0	0	0	0	0	0	0	0
Reduced Vol:	2607	2057	12	0	1347	0	0	103
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2607	2057	12	0	1347	0	0	103

Saturation Flow Module:	Junipero Serra Blvd.				19th Avenue			
	L	T	R	L	T	R	L	T
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.01	0.95	0.95	1.00	0.91	1.00	1.00	1.00
Lanes:	3.00	1.99	0.01	0.00	4.00	1.00	0.00	1.00
Final Sat.:	5778	3585	21	0	6916	1900	0	1900

Capacity Analysis Module:	Junipero Serra Blvd.				19th Avenue			
	L	T	R	L	T	R	L	T
Vol/Sat:	0.45	0.57	0.57	0.00	0.19	0.00	0.00	0.05
Crit Moves:	***	***	***	***	***	***	***	***
Green/Cycle:	0.50	0.50	0.50	0.21	0.21	0.21	0.12	0.12
Volume/Cap:	0.91	1.16	1.16	0.00	0.94	0.00	0.00	0.44
Delay/Veh:	25.3	99.2	99.2	0.0	55.7	0.0	0.0	50.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.3	99.2	99.2	0.0	55.7	0.0	0.0	50.3
LOS by Move:	C	F	F	A	E	A	A	D
HCM2kAvgQ:	30	57	57	0	16	0	0	4

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

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19th Ave CS
Tier 4B - HOT Mixed Flow Lanes Analysis

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1160 19th Avenue/Holloway Avenue

Cycle (sec): 110 Critical Vol./Cap.(X): 0.840
Loss Time (sec): 0 Average Delay (sec/veh): 46.9
Optimal Cycle: 90 Level Of Service: D

Street Name:	19th Avenue				Holloway Avenue			
Approach:	North Bound		South Bound		East Bound		West Bound	
Movement:	L	T	R	L	T	R	L	T
Control:	Permitted		Permitted		Permitted		Permitted	
Rights:	Include		Include		Include		Include	
Min. Green:	48	48	48	48	48	48	31	31
Y+R:	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Lanes:	0	0	2	1	0	0	0	1

Volume Module:	19th Avenue				Holloway Avenue			
	L	T	R	L	T	R	L	T
Base Vol:	0	2683	133	0	3339	166	132	210
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2683	133	0	3339	166	132	210
Added Vol:	0	0	0	0	0	0	0	0
Transit+cre:	0	0	0	0	-89	0	0	0
Initial Fut:	0	2683	133	0	3250	166	132	210
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	0	2738	136	0	3316	169	135	214
Reduct Vol:	0	0	0	0	0	0	0	0
Reduced Vol:	0	2738	136	0	3316	169	135	214
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	2738	136	0	3316	169	135	214

Saturation Flow Module:	19th Avenue				Holloway Avenue			
	L	T	R	L	T	R	L	T
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.90	1.00	0.96	0.85	0.57	0.57
Lanes:	0.00	2.85	0.15	0.00	3.00	1.00	0.54	0.85
Final Sat.:	0	5141	255	0	5446	1615	584	929

Capacity Analysis Module:	19th Avenue				Holloway Avenue			
	L	T	R	L	T	R	L	T
Vol/Sat:	0.00	0.53	0.53	0.00	0.61	0.10	0.23	0.23
Crit Moves:	***	***	***	***	***	***	***	***
Green/Cycle:	0.55	0.55	0.55	0.55	0.55	0.55	0.35	0.35
Volume/Cap:	0.00	0.97	0.97	0.00	1.11	0.19	0.66	0.66
Delay/Veh:	0.0	26.9	26.9	0.0	70.6	9.0	34.7	34.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	26.9	26.9	0.0	70.6	9.0	34.7	34.7
LOS by Move:	A	C	C	A	E	A	C	C
HCM2kAvgQ:	0	32	31	0	59	2	9	9

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

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19th Ave CS
Tier 4B - HOT Mixed Flow Lanes Analysis

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1170 19th Avenue/Crespi Drive

Cycle (sec): 110 Critical Vol./Cap.(X): 0.734
Loss Time (sec): 0 Average Delay (sec/veh): 65.4
Optimal Cycle: 75 Level Of Service: E

Street Name:	19th Avenue						Crespi Drive					
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			Split Phase			Split Phase		
Rights:	Include			Ignore			Include			Include		
Min. Green:	48	48	48	53	53	53	22	22	22	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	3	0	0	0	1	0	0	0	1	0

Volume Module:

Base Vol:	0	2637	0	0	3444	80	106	0	108	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2637	0	0	3444	80	106	0	108	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Transit:	0	0	0	0	-19	0	0	0	0	0	0	0
Initial Fut:	0	2637	0	0	3425	80	106	0	108	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.00	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	0	2691	0	0	3495	0	108	0	110	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2691	0	0	3495	0	108	0	110	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	2691	0	0	3495	0	108	0	110	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	0.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	5187	0	0	5187	1900	1805	0	1615	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.52	0.00	0.00	0.67	0.00	0.06	0.00	0.07	0.00	0.00	0.00
Crit Moves:	****											
Green/Cycle:	0.47	0.47	0.47	0.61	0.61	0.61	0.29	0.29	0.29	0.00	0.00	0.00
Volume/Cap:	0.00	1.10	0.00	0.00	1.10	0.00	0.21	0.00	0.23	0.00	0.00	0.00
Delay/Veh:	0.0	74.0	0.0	0.0	60.9	0.0	30.2	0.0	30.7	0.0	0.0	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	74.0	0.0	0.0	60.9	0.0	30.2	0.0	30.7	0.0	0.0	0.0
LOS by Move:	A	E	A	A	E	A	C	A	C	A	A	A
HCM2kAvgQ:	0	48	0	0	55	0	3	0	3	0	0	0

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

19th Ave CS
Tier 4B - HOT Mixed Flow Lanes Analysis

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1070 Junipero Serra Blvd./19th Avenue

Cycle (sec): 120 Critical Vol./Cap.(X): 0.953
Loss Time (sec): 0 Average Delay (sec/veh): 69.9
Optimal Cycle: 180 Level Of Service: E

Street Name: Junipero Serra Blvd. 19th Avenue
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 Permitted Permitted
Rights: Ignore Ignore Ovl Include
Min. Green: 54 54 54 20 20 20 9 9 9 9 9 9
Y+R: 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0
Lanes: 3 0 1 1 0 0 0 4 0 1 0 0 1 0 0

Volume Module:
Base Vol: 2719 2037 29 0 1429 19 0 161 3545 0 51 80
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 2719 2037 29 0 1429 19 0 161 3545 0 51 80
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
HOT: 0 0 0 0 0 0 0 0 -600 0 0 0
Initial Fut: 2719 2037 29 0 1429 19 0 161 2945 0 51 80
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.00 0.98 0.98 0.00 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 2774 2079 0 0 1458 0 0 164 3005 0 52 82
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2774 2079 0 0 1458 0 0 164 3005 0 52 82
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2774 2079 0 0 1458 0 0 164 3005 0 52 82

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.95 0.95 1.00 0.91 1.00 1.00 1.00 0.71 1.00 0.92 0.92
Lanes: 3.00 2.00 0.00 0.00 4.00 1.00 0.00 1.00 3.00 0.00 0.39 0.61
Final Sat.: 5253 3610 0 0 6916 1900 0 1900 4050 0 679 1065

Capacity Analysis Module:
Vol/Sat: 0.53 0.58 0.00 0.00 0.21 0.00 0.00 0.09 0.74 0.00 0.08 0.08
Crit Moves: ****
Green/Cycle: 0.50 0.50 0.50 0.20 0.20 0.20 0.14 0.14 0.68 0.14 0.14 0.14
Volume/Cap: 1.06 1.15 0.00 0.00 1.05 0.00 0.00 0.62 1.09 0.00 0.55 0.55
Delay/Veh: 57.8 98.1 0.0 0.0 87.9 0.0 0.0 58.9 54.1 0.0 56.6 56.6
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: 57.8 98.1 0.0 0.0 87.9 0.0 0.0 58.9 54.1 0.0 56.6 56.6
LOS by Move: E F A A F A A E D A E E
HCM2kAvgQ: 46 60 0 0 22 0 0 6 57 0 5 5

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

19th Ave CS
Tier 4B - HOT Mixed Flow Lanes Analysis

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1160 19th Avenue/Holloway Avenue

Cycle (sec): 120 Critical Vol./Cap.(X): 1.016
Loss Time (sec): 0 Average Delay (sec/veh): 75.9
Optimal Cycle: 180 Level Of Service: E

Street Name: 19th Avenue Holloway Avenue
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: 0 59 59 0 61 61 32 32 32 30 30 30
Y+R: 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0
Lanes: 0 0 2 1 0 0 0 3 0 1 0 1 0 1 0

Volume Module:
Base Vol: 0 2823 130 0 3756 250 161 221 158 130 518 52
Growth Adj: 1.00 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 2823 130 0 3756 250 161 221 158 130 518 52
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Transit+cre: 0 0 0 0 -180 0 0 0 0 0 0 0
Initial Fut: 0 2823 130 0 3576 250 161 221 158 130 518 52
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 0 2881 133 0 3649 255 164 226 161 133 529 53
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 2881 133 0 3649 255 164 226 161 133 529 53
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 2881 133 0 3649 255 164 226 161 133 529 53

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.95 0.90 1.00 0.96 0.85 0.49 0.49 0.49 0.54 0.54 0.54
Lanes: 0.00 2.86 0.14 0.00 3.00 1.00 0.60 0.82 0.58 0.37 1.48 0.15
Final Sat.: 0 5159 238 0 5446 1615 553 758 542 384 1530 154

Capacity Analysis Module:
Vol/Sat: 0.00 0.56 0.56 0.00 0.67 0.16 0.30 0.30 0.30 0.35 0.35 0.35
Crit Moves: ****
Green/Cycle: 0.58 0.58 0.58 0.58 0.58 0.58 0.26 0.26 0.26 0.26 0.26 0.26
Volume/Cap: 0.00 0.96 0.96 0.00 1.16 0.27 1.14 1.14 1.14 1.33 1.33 1.33
Delay/Veh: 0.0 24.4 24.4 0.0 89.5 8.5 131.2 131 131.2 204.9 205 204.9
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 24.4 24.4 0.0 89.5 8.5 131.2 131 131.2 204.9 205 204.9
LOS by Move: A C C A F A F F F F F F
HCM2kAvgQ: 0 35 34 0 73 3 18 18 18 27 27 27

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

19th Ave CS
Tier 4B - HOT Mixed Flow Lanes Analysis

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

Intersection #1170 19th Avenue/Crespi Drive

Cycle (sec): 120 Critical Vol./Cap.(X): 0.788
Loss Time (sec): 0 Average Delay (sec/veh): 64.4
Optimal Cycle: 88 Level Of Service: E

Street Name:	19th Avenue				Crespi Drive				
Approach:	North Bound		South Bound		East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R
Control:	Permitted		Permitted		Split Phase		Split Phase		
Rights:	Include		Ignore		Ignore		Include		
Min. Green:	59	59	0	0	64	64	21	0	21
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	3	0	0	0	3	0	1

Volume Module:	North Bound		South Bound		East Bound		West Bound	
Base Vol:	0	2870	0	0	3850	191	59	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2870	0	0	3850	191	59	0
Added Vol:	0	0	0	0	0	0	0	0
Transit:	0	0	0	0	-12	0	0	0
Initial Fut:	0	2870	0	0	3838	191	59	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.00	0.98	0.98
PHF Volume:	0	2929	0	0	3916	0	60	0
Reduct Vol:	0	0	0	0	0	0	0	0
Reduced Vol:	0	2929	0	0	3916	0	60	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
FinalVolume:	0	2929	0	0	3916	0	60	0

Saturation Flow Module:	North Bound		South Bound		East Bound		West Bound	
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.95	1.00
Lanes:	0.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00
Final Sat.:	0	5187	0	0	5187	1900	1805	0

Capacity Analysis Module:	North Bound		South Bound		East Bound		West Bound	
Vol/Sat:	0.00	0.56	0.00	0.00	0.76	0.00	0.03	0.00
Crit Moves:	****		****		****		****	
Green/Cycle:	0.51	0.51	0.51	0.69	0.69	0.69	0.28	0.28
Volume/Cap:	0.00	1.11	0.00	0.00	1.10	0.00	0.12	0.00
Delay/Veh:	0.0	75.6	0.0	0.0	56.5	0.0	33.1	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	75.6	0.0	0.0	56.5	0.0	33.1	0.0
LOS by Move:	A	E	A	A	E	A	C	A
HCM2kAvgQ:	0	55	0	0	66	0	2	0

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

19th Ave CS
Tier 4C - HOT Mixed Flow Lanes Analysis

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

Intersection #1070 Junipero Serra Blvd./19th Avenue

Cycle (sec): 110 Critical Vol./Cap.(X): 0.840
Loss Time (sec): 0 Average Delay (sec/veh): 67.6
Optimal Cycle: 116 Level Of Service: E

Street Name: Junipero Serra Blvd. 19th Avenue
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 Permitted Permitted
Rights: Include Ignore Ovl Include
Min. Green: 46 46 46 18 18 18 9 9 9 9 9 9
Y+R: 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0
Lanes: 3 0 1 1 0 0 0 4 0 1 0 0 1 0 0

Volume Module:
Base Vol: 2611 1962 12 0 1320 4 0 99 3564 0 69 84
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 2611 1962 12 0 1320 4 0 99 3564 0 69 84
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
HOT: 0 0 0 0 0 0 0 0 -600 0 0 0
Initial Fut: 2611 1962 12 0 1320 4 0 99 2964 0 69 84
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.00 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 2664 2002 12 0 1347 0 0 101 3024 0 70 86
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2664 2002 12 0 1347 0 0 101 3024 0 70 86
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2664 2002 12 0 1347 0 0 101 3024 0 70 86

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.01 0.95 0.95 1.00 0.91 1.00 1.00 1.00 0.82 1.00 0.93 0.93
Lanes: 3.00 1.99 0.01 0.00 4.00 1.00 0.00 1.00 3.00 0.00 0.45 0.55
Final Sat.: 5778 3584 22 0 6916 1900 0 1900 4690 0 793 966

Capacity Analysis Module:
Vol/Sat: 0.46 0.56 0.56 0.00 0.19 0.00 0.00 0.05 0.64 0.00 0.09 0.09
Crit Moves: ****
Green/Cycle: 0.46 0.46 0.46 0.24 0.24 0.24 0.13 0.13 0.59 0.13 0.13 0.13
Volume/Cap: 1.00 1.21 1.21 0.00 0.81 0.00 0.00 0.41 1.09 0.00 0.68 0.68
Delay/Veh: 42.5 127 126.6 0.0 43.9 0.0 0.0 48.9 62.0 0.0 61.0 61.0
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: 42.5 127 126.6 0.0 43.9 0.0 0.0 48.9 62.0 0.0 61.0 61.0
LOS by Move: D F F A D A A D E A E E
HCM2kAvgQ: 39 60 60 0 14 0 0 3 55 0 6 6

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

19th Ave CS
Tier 4C - HOT Mixed Flow Lanes Analysis

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

Intersection #1160 19th Avenue/Holloway Avenue

Cycle (sec): 110 Critical Vol./Cap.(X): 0.851
Loss Time (sec): 0 Average Delay (sec/veh): 112.5
Optimal Cycle: 97 Level Of Service: F

Street Name: 19th Avenue Holloway Avenue
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: 48 48 48 48 48 48 31 31 31 31 31 31
Y+R: 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0
Lanes: 0 0 2 1 0 0 0 3 0 1 0 1 0 1 0 1 0

Volume Module:
Base Vol: 0 2630 133 0 3339 166 132 210 149 11 376 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 2630 133 0 3339 166 132 210 149 11 376 53
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Transit+cre: 0 0 0 0 -69 0 0 0 0 0 0 0
Initial Fut: 0 2630 133 0 3270 166 132 210 149 11 376 53
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 0 2684 136 0 3337 169 135 214 152 11 384 54
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 2684 136 0 3337 169 135 214 152 11 384 54
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 2684 136 0 3337 169 135 214 152 11 384 54

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.95 0.90 1.00 0.96 0.85 0.55 0.55 0.55 0.75 0.75 0.75
Lanes: 0.00 2.85 0.15 0.00 3.00 1.00 0.54 0.85 0.61 0.05 1.71 0.24
Final Sat.: 0 5136 260 0 5446 1615 564 898 637 72 2448 345

Capacity Analysis Module:
Vol/Sat: 0.00 0.52 0.52 0.00 0.61 0.10 0.24 0.24 0.24 0.16 0.16 0.16
Crit Moves: ****
Green/Cycle: 0.47 0.47 0.47 0.47 0.47 0.47 0.27 0.27 0.27 0.27 0.27 0.27
Volume/Cap: 0.00 1.11 1.11 0.00 1.30 0.22 0.88 0.88 0.88 0.58 0.58 0.58
Delay/Veh: 0.0 80.2 80.2 0.0 163 14.7 56.5 56.5 56.5 37.9 37.9 37.9
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 80.2 80.2 0.0 163 14.7 56.5 56.5 56.5 37.9 37.9 37.9
LOS by Move: A F F A F B E E E D D D
HCM2kAvgQ: 0 46 44 0 77 3 12 12 12 8 8 8

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

19th Ave CS
Tier 4C - HOT Mixed Flow Lanes Analysis

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

Intersection #1170 19th Avenue/Crespi Drive

Cycle (sec): 110 Critical Vol./Cap.(X): 0.784
Loss Time (sec): 0 Average Delay (sec/veh): 113.9
Optimal Cycle: 95 Level Of Service: F

Street Name:	19th Avenue						Crespi Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	20	48	48	53	53	53	22	22	22	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	0	1	1	0	0	0	1	0

Volume Module:	19th Avenue NB			19th Avenue SB			Crespi Drive EB			Crespi Drive WB		
Base Vol:	67	2637	0	0	3444	55	106	0	108	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	2637	0	0	3444	55	106	0	108	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Transit:	0	0	0	0	-19	0	0	0	0	0	0	0
Initial Fut:	67	2637	0	0	3425	55	106	0	108	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	68	2691	0	0	3495	56	108	0	110	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	2691	0	0	3495	56	108	0	110	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	68	2691	0	0	3495	56	108	0	110	0	0	0

Saturation Flow Module:	19th Avenue NB			19th Avenue SB			Crespi Drive EB			Crespi Drive WB		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.71	0.91	1.00	1.00	0.91	0.85	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1354	5187	0	0	5187	1615	1805	0	1615	0	0	0

Capacity Analysis Module:	19th Avenue NB			19th Avenue SB			Crespi Drive EB			Crespi Drive WB		
Vol/Sat:	0.05	0.52	0.00	0.00	0.67	0.03	0.06	0.00	0.07	0.00	0.00	0.00
Crit Moves:	****											
Green/Cycle:	0.42	0.42	0.42	0.57	0.57	0.57	0.25	0.25	0.25	0.00	0.00	0.00
Volume/Cap:	0.12	1.24	0.00	0.00	1.18	0.06	0.24	0.00	0.28	0.00	0.00	0.00
Delay/Veh:	17.6	141	0.0	0.0	102	6.9	34.5	0.0	35.2	0.0	0.0	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:	17.6	141	0.0	0.0	102	6.9	34.5	0.0	35.2	0.0	0.0	0.0
LOS by Move:	B	F	A	A	F	A	C	A	D	A	A	A
HCM2kAvgQ:	1	58	0	0	65	0	3	0	3	0	0	0

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

19th Ave CS Tier 4C - HOT Mixed Flow Lanes Analysis															
Level Of Service Computation Report 2000 HCM Operations Method (Future Volume Alternative)															
Intersection #1070 Junipero Serra Blvd./19th Avenue															
Cycle (sec):	120		Critical Vol./Cap.(X):						0.916						
Loss Time (sec):	0		Average Delay (sec/veh):						99.6						
Optimal Cycle:	180		Level Of Service:						F						

Street Name:			Junipero Serra Blvd.				19th Avenue								
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		Permitted		Permitted						
Rights:			Ignore		Ignore		Ovl		Include						
Min. Green:			54	54	54	20	20	20	9	9	68	9	9	9	
Y+R:			20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
Lanes:			3	0	1	0	0	4	0	1	0	0	0	1	0
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----															
Volume Module:															
Base Vol:			2867	1896	29	0	1429	19	0	161	3545	0	60	77	
Growth Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:			2867	1896	29	0	1429	19	0	161	3545	0	60	77	
Added Vol:			0	0	0	0	0	0	0	0	0	0	0	0	
HOT:			0	0	0	0	0	0	0	0	-600	0	0	0	
Initial Fut:			2867	1896	29	0	1429	19	0	161	2945	0	60	77	
User Adj:			1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:			0.98	0.98	0.00	0.98	0.98	0.00	0.98	0.98	0.98	0.98	0.98	0.98	
PHF Volume:			2926	1935	0	0	1458	0	0	164	3005	0	61	79	
Reduct Vol:			0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:			2926	1935	0	0	1458	0	0	164	3005	0	61	79	
PCE Adj:			1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:			1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:			2926	1935	0	0	1458	0	0	164	3005	0	61	79	
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----															
Saturation Flow Module:															
Sat/Lane:			1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:			0.92	0.95	0.95	1.00	0.91	1.00	1.00	1.00	0.75	1.00	0.92	0.92	
Lanes:			3.00	2.00	0.00	0.00	4.00	1.00	0.00	1.00	3.00	0.00	0.44	0.56	
Final Sat.:			5253	3610	0	0	6916	1900	0	1900	4264	0	769	987	
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----															
Capacity Analysis Module:															
Vol/Sat:			0.56	0.54	0.00	0.00	0.21	0.00	0.00	0.09	0.70	0.00	0.08	0.08	
Crit Moves:			*****			*****					*****				
Green/Cycle:			0.45	0.45	0.45	0.25	0.25	0.25	0.17	0.17	0.62	0.17	0.17	0.17	
Volume/Cap:			1.24	1.19	0.00	0.00	0.84	0.00	0.00	0.51	1.14	0.00	0.47	0.47	
Delay/Veh:			138.4	120	0.0	0.0	48.0	0.0	0.0	50.9	78.7	0.0	50.1	50.1	
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:			138.4	120	0.0	0.0	48.0	0.0	0.0	50.9	78.7	0.0	50.1	50.1	
LOS by Move:			F	F	A	A	D	A	A	D	E	A	D	D	
HCM2kAvgQ:			62	59	0	0	16	0	0	6	61	0	5	5	
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----															
Note: Queue reported is the number of cars per lane.															

19th Ave CS Tier 4C - HOT Mixed Flow Lanes Analysis													
Level Of Service Computation Report 2000 HCM Operations Method (Future Volume Alternative)													

Intersection #1160 19th Avenue/Holloway Avenue													

Cycle (sec):	120	Critical Vol./Cap.(X):						0.997					
Loss Time (sec):	0	Average Delay (sec/veh):						141.5					
Optimal Cycle:	180	Level Of Service:						F					

Street Name:		19th Avenue				Holloway Avenue							
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:	0	59	59	0	61	61	32	32	32	30	30	30	
Y+R:	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
Lanes:	0	0	2	1	0	0	0	1	0	0	1	0	

Volume Module:													
Base Vol:	0	2823	130	0	3756	250	161	221	158	55	450	52	
Growth Adj:	1.00	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	2823	130	0	3756	250	161	221	158	55	450	52	
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Transit+cre:	0	0	0	0	-116	0	0	0	0	0	0	0	
Initial Fut:	0	2823	130	0	3640	250	161	221	158	55	450	52	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	
PHF Volume:	0	2881	133	0	3714	255	164	226	161	56	459	53	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	0	2881	133	0	3714	255	164	226	161	56	459	53	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:	0	2881	133	0	3714	255	164	226	161	56	459	53	

Saturation Flow Module:													
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	1.00	0.90	0.90	1.00	0.91	0.85	0.52	0.52	0.52	0.66	0.66	0.66	
Lanes:	0.00	2.87	0.13	0.00	3.00	1.00	0.60	0.82	0.58	0.20	1.61	0.19	
Final Sat.:	0	4924	227	0	5187	1615	584	802	574	248	2030	235	

Capacity Analysis Module:													
Vol/Sat:	0.00	0.59	0.59	0.00	0.72	0.16	0.28	0.28	0.28	0.23	0.23	0.23	
Crit Moves:	*****												
Green/Cycle:	0.51	0.51	0.51	0.51	0.51	0.51	0.31	0.31	0.31	0.31	0.31	0.31	
Volume/Cap:	0.00	1.16	1.16	0.00	1.42	0.31	0.92	0.92	0.92	0.74	0.74	0.74	
Delay/Veh:	0.0	98.0	98.0	0.0	212	14.2	61.9	61.9	61.9	43.7	43.7	43.7	
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	98.0	98.0	0.0	212	14.2	61.9	61.9	61.9	43.7	43.7	43.7	
LOS by Move:	A	F	F	A	F	B	E	E	E	D	D	D	
HCM2kAvgQ:	0	56	56	0	99	4	14	14	14	11	11	11	

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

19th Ave CS
Tier 4C - HOT Mixed Flow Lanes Analysis

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

Intersection #1170 19th Avenue/Crespi Drive

Cycle (sec): 120 Critical Vol./Cap.(X): 0.916
Loss Time (sec): 0 Average Delay (sec/veh): 135.1
Optimal Cycle: 180 Level Of Service: F

Street Name: 19th Avenue Crespi Drive
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Permitted Split Phase Split Phase
Rights: Include Include Ignore Include
Min. Green: 59 59 0 0 64 64 21 0 21 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 3 0 0 0 0 3 0 1 1 0 0 0 1 1 0 0 0 1

Volume Module:
Base Vol: 226 2870 0 0 3850 115 59 0 114 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 226 2870 0 0 3850 115 59 0 114 0 0 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Transit: 0 0 0 0 -12 0 0 0 0 0 0 0
Initial Fut: 226 2870 0 0 3838 115 59 0 114 0 0 0
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: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.00 0.98 0.98 0.98
PHF Volume: 231 2929 0 0 3916 117 60 0 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 231 2929 0 0 3916 117 60 0 0 0 0 0
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
FinalVolume: 231 2929 0 0 3916 117 60 0 0 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.91 1.00 1.00 0.91 0.85 0.95 1.00 1.00 1.00 1.00
Lanes: 1.00 3.00 0.00 0.00 3.00 1.00 1.00 0.00 1.00 1.00 0.00
Final Sat.: 1805 5187 0 0 5187 1615 1805 0 1900 1900 0 1900

Capacity Analysis Module:
Vol/Sat: 0.13 0.56 0.00 0.00 0.76 0.07 0.03 0.00 0.00 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.44 0.44 0.44 0.61 0.61 0.61 0.20 0.20 0.20 0.00 0.00 0.00
Volume/Cap: 0.29 1.29 0.00 0.00 1.23 0.12 0.16 0.00 0.00 0.00 0.00 0.00
Delay/Veh: 23.1 168 0.0 0.0 123 6.6 48.3 0.0 0.0 0.0 0.0 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: 23.1 168 0.0 0.0 123 6.6 48.3 0.0 0.0 0.0 0.0 0.0
LOS by Move: C F A A F A D A A A A A
HCM2kAvgQ: 5 77 0 0 92 1 2 0 0 0 0 0

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

Analysis for HOT Lane

19th Ave CS
Tier 4A - HOT Analysis: Transit-only lane

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

Intersection #1070 Junipero Serra Blvd./19th Avenue

Cycle (sec): 110 Critical Vol./Cap.(X): 0.855
Loss Time (sec): 0 Average Delay (sec/veh): 52.8
Optimal Cycle: 128 Level Of Service: D

Street Name: Junipero Serra Blvd. 19th Avenue
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 Permitted Permitted
Rights: Include Ignore Ovl Include
Min. Green: 46 46 46 18 18 18 9 9 9 9 9 9
Y+R: 17.0 17.0 17.0 17.0 17.0 17.0 17.0 17.0 17.0 17.0 17.0 17.0
Lanes: 3 0 1 1 0 0 0 4 0 1 0 0 1 0 0 0 0 1 0

Volume Module:
Base Vol: 2555 2016 12 0 1320 4 0 99 600 0 63 85
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 2555 2016 12 0 1320 4 0 99 600 0 63 85
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 2555 2016 12 0 1320 4 0 99 600 0 63 85
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.00 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 2607 2057 12 0 1347 0 0 101 612 0 64 87
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2607 2057 12 0 1347 0 0 101 612 0 64 87
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2607 2057 12 0 1347 0 0 101 612 0 64 87

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.01 0.95 0.95 1.00 0.91 1.00 1.00 1.00 0.81 1.00 0.92 0.92
Lanes: 3.00 1.99 0.01 0.00 4.00 1.00 0.00 1.00 1.00 0.00 0.43 0.57
Final Sat.: 5778 3585 21 0 6916 1900 0 1900 1534 0 747 1007

Capacity Analysis Module:
Vol/Sat: 0.45 0.57 0.57 0.00 0.19 0.00 0.00 0.05 0.40 0.00 0.09 0.09
Crit Moves: ****
Green/Cycle: 0.50 0.50 0.50 0.21 0.21 0.21 0.12 0.12 0.67 0.12 0.12 0.12
Volume/Cap: 0.91 1.16 1.16 0.00 0.94 0.00 0.00 0.43 0.60 0.00 0.69 0.69
Delay/Veh: 25.2 98.8 98.8 0.0 55.6 0.0 0.0 50.2 6.5 0.0 63.0 63.0
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: 25.2 98.8 98.8 0.0 55.6 0.0 0.0 50.2 6.5 0.0 63.0 63.0
LOS by Move: C F F A E A A D A A E E
HCM2kAvgQ: 30 57 57 0 16 0 0 3 6 0 6 6

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

19th Ave CS
Tier 4A - HOT Analysis: Transit-only lane

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

Intersection #1160 19th Avenue/Holloway Avenue

Cycle (sec): 110 Critical Vol./Cap.(X): 0.748
Loss Time (sec): 0 Average Delay (sec/veh): 25.2
Optimal Cycle: 81 Level Of Service: C

Street Name: 19th Avenue Holloway Avenue
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: 50 50 50 48 48 48 31 31 31 31 31 31
Y+R: 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0
Lanes: 0 0 2 1 0 0 0 1 0 1 0 1 0 1 0 1 0 0 1 0 1 0

Volume Module:
Base Vol: 0 2630 133 0 89 166 132 210 149 35 407 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 2630 133 0 89 166 132 210 149 35 407 53
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 2630 133 0 89 166 132 210 149 35 407 53
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 0 2684 136 0 91 169 135 214 152 36 415 54
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 2684 136 0 91 169 135 214 152 36 415 54
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 2684 136 0 91 169 135 214 152 36 415 54

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.95 0.90 1.00 1.05 0.85 0.59 0.59 0.59 0.82 0.82 0.82
Lanes: 0.00 2.85 0.15 0.00 1.00 1.00 0.54 0.85 0.61 0.14 1.65 0.21
Final Sat.: 0 5136 260 0 1995 1615 598 951 675 221 2570 335

Capacity Analysis Module:
Vol/Sat: 0.00 0.52 0.52 0.00 0.05 0.10 0.23 0.23 0.23 0.16 0.16 0.16
Crit Moves: ****
Green/Cycle: 0.55 0.55 0.55 0.55 0.55 0.55 0.35 0.35 0.35 0.35 0.35 0.35
Volume/Cap: 0.00 0.95 0.95 0.00 0.08 0.19 0.65 0.65 0.65 0.46 0.46 0.46
Delay/Veh: 0.0 24.3 24.3 0.0 8.1 9.0 34.3 34.3 34.3 29.3 29.3 29.3
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 24.3 24.3 0.0 8.1 9.0 34.3 34.3 34.3 29.3 29.3 29.3
LOS by Move: A C C A A A C C C C C C
HCM2kAvgQ: 0 30 28 0 1 2 8 8 8 7 7 7

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

19th Ave CS
Tier 4A - HOT Analysis: Transit-only lane

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1170 19th Avenue/Crespi Drive

Cycle (sec): 110 Critical Vol./Cap.(X): 0.579
Loss Time (sec): 0 Average Delay (sec/veh): 68.6
Optimal Cycle: 75 Level Of Service: E

Street Name:	19th Avenue			Crespi Drive								
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	48	48	48	53	53	53	22	22	22	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	3	0	0	1	0	1	0	0	0	0

Volume Module:

Base Vol:	0	2637	0	0	0	19	80	106	0	108	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2637	0	0	0	19	80	106	0	108	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2637	0	0	0	19	80	106	0	108	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	0	2691	0	0	0	19	82	108	0	110	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2691	0	0	0	19	82	108	0	110	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	2691	0	0	0	19	82	108	0	110	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.89	0.89	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	0.00	3.00	0.00	0.00	0.19	0.81	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	5187	0	0	325	1368	1805	0	1615	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.52	0.00	0.00	0.06	0.06	0.06	0.00	0.07	0.00	0.00	0.00
Crit Moves:	****											
Green/Cycle:	0.47	0.47	0.47	0.61	0.61	0.61	0.29	0.29	0.29	0.00	0.00	0.00
Volume/Cap:	0.00	1.10	0.00	0.00	0.10	0.10	0.21	0.00	0.23	0.00	0.00	0.00
Delay/Veh:	0.0	74.0	0.0	0.0	4.9	4.9	30.2	0.0	30.7	0.0	0.0	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	74.0	0.0	0.0	4.9	4.9	30.2	0.0	30.7	0.0	0.0	0.0
LOS by Move:	A	E	A	A	A	A	C	A	C	A	A	A
HCM2kAvgQ:	0	48	0	0	1	1	3	0	3	0	0	0

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

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19th Ave CS
Tier 4A - HOT Analysis: Transit-only lane

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

Intersection #1070 Junipero Serra Blvd./19th Avenue

Cycle (sec): 120 Critical Vol./Cap.(X): 1.017
Loss Time (sec): 17 Average Delay (sec/veh): 71.1
Optimal Cycle: 180 Level Of Service: E

Street Name: Junipero Serra Blvd. 19th Avenue
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 Permitted Permitted
Rights: Ignore Ignore Ovl Include
Min. Green: 54 54 54 20 20 20 9 9 9 9 9 9
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 3 0 1 1 0 0 0 4 0 1 0 0 0 1 0

Volume Module:
Base Vol: 2719 2037 29 0 1429 19 0 161 600 0 51 80
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 2719 2037 29 0 1429 19 0 161 600 0 51 80
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 2719 2037 29 0 1429 19 0 161 600 0 51 80
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.00 0.98 0.98 0.00 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 2774 2079 0 0 1458 0 0 164 612 0 52 82
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2774 2079 0 0 1458 0 0 164 612 0 52 82
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2774 2079 0 0 1458 0 0 164 612 0 52 82

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.95 0.95 1.00 0.91 1.00 1.00 1.00 0.81 1.00 0.92 0.92
Lanes: 3.00 2.00 0.00 0.00 4.00 1.00 0.00 1.00 1.00 0.00 0.39 0.61
Final Sat.: 5253 3610 0 0 6916 1900 0 1900 1534 0 679 1065

Capacity Analysis Module:
Vol/Sat: 0.53 0.58 0.00 0.00 0.21 0.00 0.00 0.09 0.40 0.00 0.08 0.08
Crit Moves: ****
Green/Cycle: 0.50 0.50 0.50 0.20 0.20 0.20 0.14 0.14 0.68 0.14 0.14 0.14
Volume/Cap: 1.06 1.15 0.00 0.00 1.05 0.00 0.00 0.62 0.59 0.00 0.55 0.55
Delay/Veh: 57.8 98.1 0.0 0.0 87.9 0.0 0.0 58.9 5.8 0.0 56.6 56.6
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: 57.8 98.1 0.0 0.0 87.9 0.0 0.0 58.9 5.8 0.0 56.6 56.6
LOS by Move: E F A A F A A E A A E E
HCM2kAvgQ: 46 60 0 0 22 0 0 6 5 0 5 5

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

Tier 4a PM Mon Jan 11, 2010 15:22:29 Page 3-1

19th Ave CS
Tier 4A - HOT Analysis: Transit-only lane

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

Intersection #1160 19th Avenue/Holloway Avenue

Cycle (sec): 120 Critical Vol./Cap.(X): 0.889
Loss Time (sec): 0 Average Delay (sec/veh): 58.9
Optimal Cycle: 130 Level Of Service: E

Street Name: 19th Avenue Holloway Avenue
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: 0 59 59 0 59 59 33 33 33 30 30 30
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 1 0 0 0 1 0 1 0 1 0 1 0

Volume Module:
Base Vol: 0 2823 130 0 180 250 161 221 158 130 518 52
Growth Adj: 1.00 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 2823 130 0 180 250 161 221 158 130 518 52
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 2823 130 0 180 250 161 221 158 130 518 52
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 0 2881 133 0 184 255 164 226 161 133 529 53
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 2881 133 0 184 255 164 226 161 133 529 53
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 2881 133 0 184 255 164 226 161 133 529 53

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.95 0.90 1.00 1.05 0.85 0.48 0.48 0.48 0.57 0.57 0.57
Lanes: 0.00 2.86 0.14 0.00 1.00 1.00 0.60 0.82 0.58 0.37 1.48 0.15
Final Sat.: 0 5159 238 0 1995 1615 547 751 537 401 1598 160

Capacity Analysis Module:
Vol/Sat: 0.00 0.56 0.56 0.00 0.09 0.16 0.30 0.30 0.30 0.33 0.33 0.33
Crit Moves: ****
Green/Cycle: 0.58 0.58 0.58 0.58 0.58 0.58 0.26 0.26 0.26 0.26 0.26 0.26
Volume/Cap: 0.00 0.97 0.97 0.00 0.16 0.27 1.15 1.15 1.15 1.26 1.26 1.26
Delay/Veh: 0.0 25.0 25.0 0.0 7.6 8.6 132.3 132 132.3 176.6 177 176.6
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 25.0 25.0 0.0 7.6 8.6 132.3 132 132.3 176.6 177 176.6
LOS by Move: A C C A A A F F F F F F
HCM2kAvgQ: 0 36 34 0 2 3 18 18 18 26 26 26

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

19th Ave CS
Tier 4A - HOT Analysis: Transit-only lane

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1170 19th Avenue/Crespi Drive

Cycle (sec): 120 Critical Vol./Cap.(X): 0.598
Loss Time (sec): 0 Average Delay (sec/veh): 70.1
Optimal Cycle: 85 Level Of Service: E

Street Name:	19th Avenue						Crespi Drive					
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			Split Phase			Split Phase		
Rights:	Include			Include			Ignore			Include		
Min. Green:	59	59	0	0	64	64	21	0	21	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	3	0	0	0	1	0	1	0	0	0

Volume Module:

Base Vol:	0	2870	0	0	0	12	191	59	0	114	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2870	0	0	0	12	191	59	0	114	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2870	0	0	0	12	191	59	0	114	0	0	0
User Adj:	1.00	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:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.00	0.98	0.98	0.98
PHF Volume:	0	2929	0	0	0	12	195	60	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2929	0	0	0	12	195	60	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	0.00	1.00	1.00	1.00
FinalVolume:	0	2929	0	0	0	12	195	60	0	0	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.87	0.87	0.95	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	0.00	0.00	0.06	0.94	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	5187	0	0	98	1561	1805	0	1900	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.56	0.00	0.00	0.12	0.12	0.03	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****											
Green/Cycle:	0.51	0.51	0.51	0.69	0.69	0.69	0.28	0.28	0.28	0.00	0.00	0.00
Volume/Cap:	0.00	1.11	0.00	0.00	0.18	0.18	0.12	0.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	75.6	0.0	0.0	2.5	2.5	33.1	0.0	0.0	0.0	0.0	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	75.6	0.0	0.0	2.5	2.5	33.1	0.0	0.0	0.0	0.0	0.0
LOS by Move:	A	E	A	A	A	A	C	A	A	A	A	A
HCM2kAvgQ:	0	55	0	0	1	1	2	0	0	0	0	0

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

19th Ave CS
Tier 4B - HOT Analysis: Transit-only lane

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1070 Junipero Serra Blvd./19th Avenue

Cycle (sec): 110 Critical Vol./Cap.(X): 0.855
Loss Time (sec): 0 Average Delay (sec/veh): 53.0
Optimal Cycle: 128 Level Of Service: D

Street Name: Junipero Serra Blvd. 19th Avenue
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 Permitted Permitted
Rights: Include Ignore Ovl Include
Min. Green: 46 46 46 18 18 18 9 9 9 9 9 9
Y+R: 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0
Lanes: 3 0 1 1 0 0 0 4 0 1 0 0 0 1 0

Volume Module:
Base Vol: 2555 2016 12 0 1320 4 0 101 600 0 63 85
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 2555 2016 12 0 1320 4 0 101 600 0 63 85
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 2555 2016 12 0 1320 4 0 101 600 0 63 85
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.00 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 2607 2057 12 0 1347 0 0 103 612 0 64 87
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2607 2057 12 0 1347 0 0 103 612 0 64 87
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2607 2057 12 0 1347 0 0 103 612 0 64 87

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.01 0.95 0.95 1.00 0.91 1.00 1.00 1.00 0.81 1.00 0.92 0.92
Lanes: 3.00 1.99 0.01 0.00 4.00 1.00 0.00 1.00 1.00 0.00 0.43 0.57
Final Sat.: 5778 3585 21 0 6916 1900 0 1900 1534 0 747 1007

Capacity Analysis Module:
Vol/Sat: 0.45 0.57 0.57 0.00 0.19 0.00 0.00 0.05 0.40 0.00 0.09 0.09
Crit Moves: ****
Green/Cycle: 0.50 0.50 0.50 0.21 0.21 0.21 0.12 0.12 0.67 0.12 0.12 0.12
Volume/Cap: 0.91 1.16 1.16 0.00 0.94 0.00 0.00 0.44 0.60 0.00 0.69 0.69
Delay/Veh: 25.3 99.2 99.2 0.0 55.7 0.0 0.0 50.3 6.6 0.0 62.7 62.7
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: 25.3 99.2 99.2 0.0 55.7 0.0 0.0 50.3 6.6 0.0 62.7 62.7
LOS by Move: C F F A E A A D A A E E
HCM2kAvgQ: 30 57 57 0 16 0 0 4 6 0 6 6

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

19th Ave CS
Tier 4B - HOT Analysis: Transit-only lane

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1160 19th Avenue/Holloway Avenue

Cycle (sec): 110 Critical Vol./Cap.(X): 0.763
Loss Time (sec): 0 Average Delay (sec/veh): 27.0
Optimal Cycle: 79 Level Of Service: C

Street Name: 19th Avenue Holloway Avenue
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: 48 48 48 48 48 48 31 31 31 31 31 31
Y+R: 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0
Lanes: 0 0 2 1 0 0 0 1 0 1 0 1 0 1 0 1 0

Volume Module:
Base Vol: 0 2683 133 0 89 166 132 210 149 35 407 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 2683 133 0 89 166 132 210 149 35 407 53
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 2683 133 0 89 166 132 210 149 35 407 53
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 0 2738 136 0 91 169 135 214 152 36 415 54
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 2738 136 0 91 169 135 214 152 36 415 54
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 2738 136 0 91 169 135 214 152 36 415 54

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.95 0.90 1.00 1.05 0.85 0.57 0.57 0.57 0.77 0.77 0.77
Lanes: 0.00 2.85 0.15 0.00 1.00 1.00 0.54 0.85 0.61 0.14 1.65 0.21
Final Sat.: 0 5141 255 0 1995 1615 584 929 659 206 2395 312

Capacity Analysis Module:
Vol/Sat: 0.00 0.53 0.53 0.00 0.05 0.10 0.23 0.23 0.23 0.17 0.17 0.17
Crit Moves: ****
Green/Cycle: 0.55 0.55 0.55 0.55 0.55 0.55 0.35 0.35 0.35 0.35 0.35 0.35
Volume/Cap: 0.00 0.97 0.97 0.00 0.08 0.19 0.66 0.66 0.66 0.50 0.50 0.50
Delay/Veh: 0.0 26.9 26.9 0.0 8.1 9.0 34.7 34.7 34.7 29.8 29.8 29.8
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 26.9 26.9 0.0 8.1 9.0 34.7 34.7 34.7 29.8 29.8 29.8
LOS by Move: A C C A A A C C C C C C
HCM2kAvgQ: 0 32 31 0 1 2 9 9 9 7 7 7

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

19th Ave CS
Tier 4B - HOT Analysis: Transit-only lane

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1170 19th Avenue/Crespi Drive

Cycle (sec): 110 Critical Vol./Cap.(X): 0.579
Loss Time (sec): 0 Average Delay (sec/veh): 68.6
Optimal Cycle: 75 Level Of Service: E

Street Name:	19th Avenue			Crespi Drive								
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	48	48	48	53	53	53	22	22	22	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	3	0	0	1	0	1	0	0	0	0

Volume Module:

Base Vol:	0	2637	0	0	0	19	80	106	0	108	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2637	0	0	0	19	80	106	0	108	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2637	0	0	0	19	80	106	0	108	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	0	2691	0	0	0	19	82	108	0	110	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2691	0	0	0	19	82	108	0	110	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	2691	0	0	0	19	82	108	0	110	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.89	0.89	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	0.00	3.00	0.00	0.00	0.19	0.81	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	5187	0	0	325	1368	1805	0	1615	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.52	0.00	0.00	0.06	0.06	0.06	0.00	0.07	0.00	0.00	0.00
Crit Moves:	****											
Green/Cycle:	0.47	0.47	0.47	0.61	0.61	0.61	0.29	0.29	0.29	0.00	0.00	0.00
Volume/Cap:	0.00	1.10	0.00	0.00	0.10	0.10	0.21	0.00	0.23	0.00	0.00	0.00
Delay/Veh:	0.0	74.0	0.0	0.0	4.9	4.9	30.2	0.0	30.7	0.0	0.0	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	74.0	0.0	0.0	4.9	4.9	30.2	0.0	30.7	0.0	0.0	0.0
LOS by Move:	A	E	A	A	A	A	C	A	C	A	A	A
HCM2kAvgQ:	0	48	0	0	1	1	3	0	3	0	0	0

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

Tier 4b PM Mon Jan 11, 2010 15:23:33 Page 2-1

19th Ave CS
Tier 4B - HOT Analysis: Transit-only lane

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1070 Junipero Serra Blvd./19th Avenue

Cycle (sec): 120 Critical Vol./Cap.(X): 0.873
Loss Time (sec): 0 Average Delay (sec/veh): 71.1
Optimal Cycle: 147 Level Of Service: E

Street Name: Junipero Serra Blvd. 19th Avenue
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 Permitted Permitted
Rights: Ignore Ignore Ovl Include
Min. Green: 54 54 54 20 20 20 9 9 9 9 9 9
Y+R: 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0
Lanes: 3 0 1 1 0 0 0 4 0 1 0 0 1 0 0 0 0 1 0

Volume Module:
Base Vol: 2719 2037 29 0 1429 19 0 161 600 0 51 80
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 2719 2037 29 0 1429 19 0 161 600 0 51 80
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 2719 2037 29 0 1429 19 0 161 600 0 51 80
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.00 0.98 0.98 0.00 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 2774 2079 0 0 1458 0 0 164 612 0 52 82
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2774 2079 0 0 1458 0 0 164 612 0 52 82
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2774 2079 0 0 1458 0 0 164 612 0 52 82

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.95 0.95 1.00 0.91 1.00 1.00 1.00 0.81 1.00 0.92 0.92
Lanes: 3.00 2.00 0.00 0.00 4.00 1.00 0.00 1.00 1.00 0.00 0.39 0.61
Final Sat.: 5253 3610 0 0 6916 1900 0 1900 1534 0 679 1065

Capacity Analysis Module:
Vol/Sat: 0.53 0.58 0.00 0.00 0.21 0.00 0.00 0.09 0.40 0.00 0.08 0.08
Crit Moves: ****
Green/Cycle: 0.50 0.50 0.50 0.20 0.20 0.20 0.14 0.14 0.68 0.14 0.14 0.14
Volume/Cap: 1.06 1.15 0.00 0.00 1.05 0.00 0.00 0.62 0.59 0.00 0.55 0.55
Delay/Veh: 57.8 98.1 0.0 0.0 87.9 0.0 0.0 58.9 5.8 0.0 56.6 56.6
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: 57.8 98.1 0.0 0.0 87.9 0.0 0.0 58.9 5.8 0.0 56.6 56.6
LOS by Move: E F A A F A A E A A E E
HCM2kAvgQ: 46 60 0 0 22 0 0 6 5 0 5 5

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

Tier 4b PM Mon Jan 11, 2010 15:23:33 Page 3-1

19th Ave CS
Tier 4B - HOT Analysis: Transit-only lane

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1160 19th Avenue/Holloway Avenue

Cycle (sec): 120 Critical Vol./Cap.(X): 0.904
Loss Time (sec): 0 Average Delay (sec/veh): 62.7
Optimal Cycle: 150 Level Of Service: E

Street Name: 19th Avenue Holloway Avenue
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: 0 59 59 0 61 61 32 32 32 30 30 30
Y+R: 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0
Lanes: 0 0 2 1 0 0 0 1 0 1 0 1 0 1 0 1 0

Volume Module:
Base Vol: 0 2823 130 0 180 250 161 221 158 130 518 52
Growth Adj: 1.00 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 2823 130 0 180 250 161 221 158 130 518 52
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 2823 130 0 180 250 161 221 158 130 518 52
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 0 2881 133 0 184 255 164 226 161 133 529 53
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 2881 133 0 184 255 164 226 161 133 529 53
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 2881 133 0 184 255 164 226 161 133 529 53

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.95 0.90 1.00 1.05 0.85 0.49 0.49 0.49 0.54 0.54 0.54
Lanes: 0.00 2.86 0.14 0.00 1.00 1.00 0.60 0.82 0.58 0.37 1.48 0.15
Final Sat.: 0 5159 238 0 1995 1615 553 758 542 384 1530 154

Capacity Analysis Module:
Vol/Sat: 0.00 0.56 0.56 0.00 0.09 0.16 0.30 0.30 0.30 0.35 0.35 0.35
Crit Moves: ****
Green/Cycle: 0.58 0.58 0.58 0.58 0.58 0.58 0.26 0.26 0.26 0.26 0.26 0.26
Volume/Cap: 0.00 0.96 0.96 0.00 0.16 0.27 1.14 1.14 1.14 1.33 1.33 1.33
Delay/Veh: 0.0 24.4 24.4 0.0 7.5 8.5 131.2 131 131.2 204.9 205 204.9
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 24.4 24.4 0.0 7.5 8.5 131.2 131 131.2 204.9 205 204.9
LOS by Move: A C C A A A F F F F F F
HCM2kAvgQ: 0 35 34 0 2 3 18 18 18 27 27 27

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

19th Ave CS
Tier 4B - HOT Analysis: Transit-only lane

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1170 19th Avenue/Crespi Drive

Cycle (sec): 120 Critical Vol./Cap.(X): 0.598
Loss Time (sec): 0 Average Delay (sec/veh): 70.1
Optimal Cycle: 85 Level Of Service: E

Street Name:	19th Avenue				Crespi Drive				
Approach:	North Bound		South Bound		East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R
Control:	Permitted		Permitted		Split Phase		Split Phase		
Rights:	Include		Include		Ignore		Include		
Min. Green:	59	59	0	0	64	64	21	0	21
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	3	0	0	0	1	0	0

Volume Module:	North Bound		South Bound		East Bound		West Bound	
Base Vol:	0	2870	0	0	12	191	59	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2870	0	0	12	191	59	0
Added Vol:	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0
Initial Fut:	0	2870	0	0	12	191	59	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.00	0.98
PHF Volume:	0	2929	0	0	12	195	60	0
Reduct Vol:	0	0	0	0	0	0	0	0
Reduced Vol:	0	2929	0	0	12	195	60	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
FinalVolume:	0	2929	0	0	12	195	60	0

Saturation Flow Module:	North Bound		South Bound		East Bound		West Bound	
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.87	0.87	0.95	1.00
Lanes:	0.00	3.00	0.00	0.00	0.06	0.94	1.00	0.00
Final Sat.:	0	5187	0	0	98	1561	1805	0

Capacity Analysis Module:	North Bound		South Bound		East Bound		West Bound	
Vol/Sat:	0.00	0.56	0.00	0.00	0.12	0.12	0.03	0.00
Crit Moves:	****							
Green/Cycle:	0.51	0.51	0.51	0.69	0.69	0.69	0.28	0.28
Volume/Cap:	0.00	1.11	0.00	0.00	0.18	0.18	0.12	0.00
Delay/Veh:	0.0	75.6	0.0	0.0	2.5	2.5	33.1	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	75.6	0.0	0.0	2.5	2.5	33.1	0.0
LOS by Move:	A	E	A	A	A	A	C	A
HCM2kAvgQ:	0	55	0	0	1	1	2	0

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

19th Ave CS
Tier 4C - HOT Analysis: Transit-only lane

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1070 Junipero Serra Blvd./19th Avenue

Cycle (sec): 110 Critical Vol./Cap.(X): 0.842
Loss Time (sec): 0 Average Delay (sec/veh): 65.1
Optimal Cycle: 118 Level Of Service: E

Street Name: Junipero Serra Blvd. 19th Avenue
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 Permitted Permitted
Rights: Include Ignore Ovl Include
Min. Green: 46 46 46 18 18 18 9 9 9 9 9 9
Y+R: 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0
Lanes: 3 0 1 1 0 0 0 4 0 1 0 0 0 1 0 0

Volume Module:
Base Vol: 2611 1962 12 0 1320 4 0 99 600 0 69 84
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 2611 1962 12 0 1320 4 0 99 600 0 69 84
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 2611 1962 12 0 1320 4 0 99 600 0 69 84
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.00 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 2664 2002 12 0 1347 0 0 101 612 0 70 86
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2664 2002 12 0 1347 0 0 101 612 0 70 86
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2664 2002 12 0 1347 0 0 101 612 0 70 86

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.01 0.95 0.95 1.00 0.91 1.00 1.00 1.00 0.94 1.00 0.93 0.93
Lanes: 3.00 1.99 0.01 0.00 4.00 1.00 0.00 1.00 1.00 0.00 0.45 0.55
Final Sat.: 5778 3584 22 0 6916 1900 0 1900 1777 0 793 966

Capacity Analysis Module:
Vol/Sat: 0.46 0.56 0.56 0.00 0.19 0.00 0.00 0.05 0.34 0.00 0.09 0.09
Crit Moves: ****
Green/Cycle: 0.46 0.46 0.46 0.24 0.24 0.24 0.13 0.13 0.59 0.13 0.13 0.13
Volume/Cap: 1.00 1.21 1.21 0.00 0.81 0.00 0.00 0.41 0.58 0.00 0.68 0.68
Delay/Veh: 42.5 127 126.6 0.0 43.9 0.0 0.0 48.9 10.8 0.0 61.0 61.0
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: 42.5 127 126.6 0.0 43.9 0.0 0.0 48.9 10.8 0.0 61.0 61.0
LOS by Move: D F F A D A A D B A E E
HCM2kAvgQ: 39 60 60 0 14 0 0 3 9 0 6 6

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

19th Ave CS
Tier 4C - HOT Analysis: Transit-only lane

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1160 19th Avenue/Holloway Avenue

Cycle (sec): 110 Critical Vol./Cap.(X): 0.761
Loss Time (sec): 0 Average Delay (sec/veh): 68.6
Optimal Cycle: 79 Level Of Service: E

Street Name: 19th Avenue Holloway Avenue
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: 48 48 48 48 48 48 31 31 31 31 31 31
Y+R: 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0
Lanes: 0 0 2 1 0 0 0 1 0 1 0 1 0 0 1 0 1 0

Volume Module:
Base Vol: 0 2630 133 0 69 166 132 210 149 11 376 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 2630 133 0 69 166 132 210 149 11 376 53
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 2630 133 0 69 166 132 210 149 11 376 53
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 0 2684 136 0 70 169 135 214 152 11 384 54
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 2684 136 0 70 169 135 214 152 11 384 54
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 2684 136 0 70 169 135 214 152 11 384 54

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.95 0.90 1.00 1.05 0.85 0.55 0.55 0.55 0.75 0.75 0.75
Lanes: 0.00 2.85 0.15 0.00 1.00 1.00 0.54 0.85 0.61 0.05 1.71 0.24
Final Sat.: 0 5136 260 0 1995 1615 564 898 637 72 2448 345

Capacity Analysis Module:
Vol/Sat: 0.00 0.52 0.52 0.00 0.04 0.10 0.24 0.24 0.24 0.16 0.16 0.16
Crit Moves: ****
Green/Cycle: 0.47 0.47 0.47 0.47 0.47 0.47 0.27 0.27 0.27 0.27 0.27 0.27
Volume/Cap: 0.00 1.11 1.11 0.00 0.08 0.22 0.88 0.88 0.88 0.58 0.58 0.58
Delay/Veh: 0.0 80.2 80.2 0.0 13.1 14.7 56.5 56.5 56.5 37.9 37.9 37.9
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 80.2 80.2 0.0 13.1 14.7 56.5 56.5 56.5 37.9 37.9 37.9
LOS by Move: A F F A B B E E E D D D
HCM2kAvgQ: 0 46 44 0 1 3 12 12 12 8 8 8

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

19th Ave CS
Tier 4C - HOT Analysis: Transit-only lane

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

Intersection #1170 19th Avenue/Crespi Drive

Cycle (sec): 110 Critical Vol./Cap.(X): 0.155
Loss Time (sec): 0 Average Delay (sec/veh): 127.0
Optimal Cycle: 95 Level Of Service: F

Street Name:	19th Avenue						Crespi Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	20	48	48	53	53	53	22	22	22	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	0	1	0	0	0	1	0	0

Volume Module:	19th Avenue NB			19th Avenue SB			Crespi Drive EB			Crespi Drive WB		
Base Vol:	67	2637	0	0	19	55	106	0	108	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	2637	0	0	19	55	106	0	108	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	67	2637	0	0	19	55	106	0	108	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	68	2691	0	0	19	56	108	0	110	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	2691	0	0	19	56	108	0	110	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	68	2691	0	0	19	56	108	0	110	0	0	0

Saturation Flow Module:	19th Avenue NB			19th Avenue SB			Crespi Drive EB			Crespi Drive WB		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.71	0.91	1.00	1.00	0.90	0.90	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	0.26	0.74	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1354	5187	0	0	439	1271	1805	0	1615	0	0	0

Capacity Analysis Module:	19th Avenue NB			19th Avenue SB			Crespi Drive EB			Crespi Drive WB		
Vol/Sat:	0.05	0.52	0.00	0.00	0.04	0.04	0.06	0.00	0.07	0.00	0.00	0.00
Crit Moves:	*****											
Green/Cycle:	0.42	0.42	0.42	0.57	0.57	0.57	0.25	0.25	0.25	0.00	0.00	0.00
Volume/Cap:	0.12	1.24	0.00	0.00	0.08	0.08	0.24	0.00	0.28	0.00	0.00	0.00
Delay/Veh:	17.6	141	0.0	0.0	7.0	7.0	34.5	0.0	35.2	0.0	0.0	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:	17.6	141	0.0	0.0	7.0	7.0	34.5	0.0	35.2	0.0	0.0	0.0
LOS by Move:	B	F	A	A	A	A	C	A	D	A	A	A
HCM2kAvgQ:	1	58	0	0	1	1	3	0	3	0	0	0

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

19th Ave CS
Tier 4C - HOT Analysis: Transit-only lane

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1070 Junipero Serra Blvd./19th Avenue

Cycle (sec): 120 Critical Vol./Cap.(X): 0.854
Loss Time (sec): 0 Average Delay (sec/veh): 100.7
Optimal Cycle: 128 Level Of Service: F

Street Name: Junipero Serra Blvd. 19th Avenue
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 Permitted Permitted
Rights: Ignore Ignore Ovl Include
Min. Green: 54 54 54 20 20 20 9 9 68 9 9 20 9
Y+R: 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0
Lanes: 3 0 1 1 0 0 0 4 0 1 0 0 1 0 0 0 0 1 0

Volume Module:
Base Vol: 2867 1896 29 0 1429 19 0 161 600 0 60 77
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 2867 1896 29 0 1429 19 0 161 600 0 60 77
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 2867 1896 29 0 1429 19 0 161 600 0 60 77
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.00 0.98 0.98 0.00 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 2926 1935 0 0 1458 0 0 164 612 0 61 79
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2926 1935 0 0 1458 0 0 164 612 0 61 79
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2926 1935 0 0 1458 0 0 164 612 0 61 79

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.95 0.95 1.00 0.91 1.00 1.00 1.00 0.85 1.00 0.92 0.92
Lanes: 3.00 2.00 0.00 0.00 4.00 1.00 0.00 1.00 1.00 0.00 0.44 0.56
Final Sat.: 5253 3610 0 0 6916 1900 0 1900 1615 0 769 987

Capacity Analysis Module:
Vol/Sat: 0.56 0.54 0.00 0.00 0.21 0.00 0.00 0.09 0.38 0.00 0.08 0.08
Crit Moves: ****
Green/Cycle: 0.45 0.45 0.45 0.25 0.25 0.25 0.17 0.17 0.62 0.17 0.17 0.17
Volume/Cap: 1.24 1.19 0.00 0.00 0.84 0.00 0.00 0.51 0.61 0.00 0.47 0.47
Delay/Veh: 138.4 120 0.0 0.0 48.0 0.0 0.0 50.9 10.1 0.0 50.1 50.1
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: 138.4 120 0.0 0.0 48.0 0.0 0.0 50.9 10.1 0.0 50.1 50.1
LOS by Move: F F A A D A A D B A D D
HCM2kAvgQ: 62 59 0 0 16 0 0 6 9 0 5 5

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

19th Ave CS
Tier 4C - HOT Analysis: Transit-only lane

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1160 19th Avenue/Holloway Avenue

Cycle (sec): 120 Critical Vol./Cap.(X): 0.866
Loss Time (sec): 0 Average Delay (sec/veh): 79.8
Optimal Cycle: 108 Level Of Service: E

Street Name: 19th Avenue Holloway Avenue
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: 0 59 59 0 61 61 32 32 32 30 30 30
Y+R: 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0
Lanes: 0 0 2 1 0 0 0 1 0 1 0 1 0 1 0 1 0

Volume Module:
Base Vol: 0 2823 130 0 116 250 161 221 158 55 450 52
Growth Adj: 1.00 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 2823 130 0 116 250 161 221 158 55 450 52
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 2823 130 0 116 250 161 221 158 55 450 52
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 0 2881 133 0 118 255 164 226 161 56 459 53
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 2881 133 0 118 255 164 226 161 56 459 53
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 2881 133 0 118 255 164 226 161 56 459 53

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.90 0.90 1.00 1.00 0.85 0.52 0.52 0.52 0.66 0.66 0.66
Lanes: 0.00 2.87 0.13 0.00 1.00 1.00 0.60 0.82 0.58 0.20 1.61 0.19
Final Sat.: 0 4924 227 0 1900 1615 584 802 574 248 2030 235

Capacity Analysis Module:
Vol/Sat: 0.00 0.59 0.59 0.00 0.06 0.16 0.28 0.28 0.28 0.23 0.23 0.23
Crit Moves: ****
Green/Cycle: 0.51 0.51 0.51 0.51 0.51 0.51 0.31 0.31 0.31 0.31 0.31 0.31
Volume/Cap: 0.00 1.16 1.16 0.00 0.12 0.31 0.92 0.92 0.92 0.74 0.74 0.74
Delay/Veh: 0.0 98.0 98.0 0.0 12.1 14.2 61.9 61.9 61.9 43.7 43.7 43.7
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 98.0 98.0 0.0 12.1 14.2 61.9 61.9 61.9 43.7 43.7 43.7
LOS by Move: A F F A B B E E E D D D
HCM2kAvgQ: 0 56 56 0 2 4 14 14 14 11 11 11

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

19th Ave CS
Tier 4C - HOT Analysis: Transit-only lane

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

Intersection #1170 19th Avenue/Crespi Drive

Cycle (sec): 120 Critical Vol./Cap.(X): 0.239
Loss Time (sec): 0 Average Delay (sec/veh): 149.3
Optimal Cycle: 144 Level Of Service: F

Street Name:	19th Avenue						Crespi Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Ignore			Include		
Min. Green:	59	59	0	0	64	64	21	0	21	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	0	1	0	1	0	0	0	1

Volume Module:	19th Avenue			19th Avenue			Crespi Drive			Crespi Drive		
Base Vol:	226	2870	0	0	12	115	59	0	114	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	226	2870	0	0	12	115	59	0	114	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	226	2870	0	0	12	115	59	0	114	0	0	0
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:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.00	0.98	0.98	0.98
PHF Volume:	231	2929	0	0	12	117	60	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	231	2929	0	0	12	117	60	0	0	0	0	0
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
FinalVolume:	231	2929	0	0	12	117	60	0	0	0	0	0

Saturation Flow Module:	19th Avenue			19th Avenue			Crespi Drive			Crespi Drive		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	1.00	1.00	0.88	0.88	0.95	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	0.09	0.91	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1805	5187	0	0	158	1511	1805	0	1900	1900	0	1900

Capacity Analysis Module:	19th Avenue			19th Avenue			Crespi Drive			Crespi Drive		
Vol/Sat:	0.13	0.56	0.00	0.00	0.08	0.08	0.03	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****			****			****					
Green/Cycle:	0.44	0.44	0.44	0.61	0.61	0.61	0.20	0.20	0.20	0.00	0.00	0.00
Volume/Cap:	0.29	1.29	0.00	0.00	0.13	0.13	0.16	0.00	0.00	0.00	0.00	0.00
Delay/Veh:	23.1	168	0.0	0.0	6.6	6.6	48.3	0.0	0.0	0.0	0.0	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:	23.1	168	0.0	0.0	6.6	6.6	48.3	0.0	0.0	0.0	0.0	0.0
LOS by Move:	C	F	A	A	A	A	D	A	A	A	A	A
HCM2kAvgQ:	5	77	0	0	1	1	2	0	0	0	0	0

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

Combined Analysis

19th Ave CS
Tier 4a - HOT ConfigurationImpact Analysis Report
Level Of Service

Intersection	Base		Future		Change
	LOS	Veh	LOS	Veh	in
#1070 Junipero Serra / 19th	D	42.8 0.942	D	54.3 0.968	+11.529 D/V
#1160 19th / Holloway	A	6.7 0.794	D	40.2 0.868	+33.534 D/V
#1170 19th / Crespi	D	41.8 0.762	E	61.5 0.752	+19.728 D/V

19th Ave CS
Tier 4a - HOT ConfigurationLevel Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

***** Intersection #1070 Junipero Serra / 19th *****																
Cycle (sec):	110				Critical Vol./Cap.(X):				0.968							
Loss Time (sec):	0				Average Delay (sec/veh):				54.3							
Optimal cycle:	180				Level of Service:				D							

Street Name:	Junipero Serra								19th							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Ignore				Ovl				Include			
Min. Green:	46		46		46	18		18		9		9		9		9
Y+R:	17.0	17.0		17.0	17.0	17.0		17.0		17.0	17.0		17.0	17.0		17.0
Lanes:	3	0	1	1	0	0	0	4	0	1	0	0	0	1	0	0
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Volume Module:																
Base Vol:	2208	1679		8		0	1210		4		0	71	3047	0	56	62
Growth Adj:	1.13	1.14	1.12		1.10	1.09	1.11		1.12	1.10	1.10	1.11	1.12	1.12	1.13	
Initial Bse:	2494	1908		9		0	1321		4		0	78	3345	0	63	70
Added Vol:	61	108		3		0	-1		0		0	21	119	0	0	15
PasserByVol:	0	0		0		0	0		0		0	0	0	0	0	0
Initial Fut:	2555	2016		12		0	1320		4		0	99	3464	0	63	85
User Adj:	1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98		0.98	0.98	0.00		0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	2607	2058		12		0	1347		0		0	101	3535	0	64	87
Reduct Vol:	0	0		0		0	0		0		0	0	0	0	0	0
Reduced Vol:	2607	2058		12		0	1347		0		0	101	3535	0	64	87
PCE Adj:	1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2607	2058		12		0	1347		0		0	101	3535	0	64	87
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.99	0.93	0.93		1.00	0.89	1.00		1.00	0.98	0.81	1.00	0.90	0.90	0.90	
Lanes:	3.00	1.99	0.01		0.00	4.00	1.00		0.00	1.00	3.00	0.00	0.43	0.57		
Final Sat.:	5662	3513	21		0	6778	1900		0	1862	4596	0	730	987		
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Capacity Analysis Module:																
Vol/Sat:	0.46	0.59	0.59		0.00	0.20	0.00		0.00	0.05	0.77	0.00	0.09	0.09		
Crit Moves:	*****				*****				*****							
Green/Cycle:	0.50	0.50	0.50		0.21	0.21	0.21		0.12	0.12	0.67	0.12	0.12	0.12		
Volume/Cap:	0.93	1.18	1.18		0.00	0.96	0.00		0.00	0.44	1.15	0.00	0.71	0.71		
Delay/Veh:	26.8	109	109.0		0.0	58.6	0.0		0.0	50.6	80.9	0.0	64.4	64.4		
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.50	1.00	1.00	1.00		
AdjDeL/Veh:	26.8	109	109.0		0.0	58.6	0.0		0.0	50.6	40.5	0.0	64.4	64.4		
LOS by Move:	C	F	F		A	E	A		A	D	D	A	E	E		
HCM2kAvgQ:	28	57	57		0	15	0		0	4	69	0	6	6		

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

19th Ave CS
Tier 4a - HOT Configuration

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1160 19th / Holloway

Cycle (sec): 110 Critical Vol./Cap.(X): 0.868
Loss Time (sec): 0 Average Delay (sec/veh): 40.2
Optimal Cycle: 109 Level Of Service: D

Street Name:	19th				Holloway				
Approach:	North Bound		South Bound		East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R
Control:	Permitted		Permitted		Permitted		Permitted		
Rights:	Include		Include		Include		Include		
Min. Green:	50	50	50	48	48	48	31	31	31
Y+R:	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
Lanes:	0	0	2	1	0	0	0	1	0

Volume Module:

Base Vol:	0	2288	130	0	3078	138	56	143	55	37	370	50
Growth Adj:	1.07	1.14	1.18	1.16	1.09	1.05	1.18	1.23	1.16	1.05	1.00	1.07
Initial Bse:	0	2601	154	0	3361	144	66	176	64	39	370	53
Added Vol:	0	29	-21	0	-22	22	66	34	85	-4	37	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2630	133	0	3339	166	132	210	149	35	407	53
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	0	2683	135	0	3407	170	135	214	152	35	415	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2683	135	0	3407	170	135	214	152	35	415	54
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	2683	135	0	3407	170	135	214	152	35	415	54

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.93	0.89	1.00	0.94	0.83	0.57	0.57	0.81	0.81	0.81	0.81
Lanes:	0.00	2.85	0.15	0.00	3.00	1.00	0.54	0.85	0.61	0.14	1.64	0.22
Final Sat.:	0	5033	254	0	5337	1583	587	931	661	215	2522	331

Capacity Analysis Module:

Vol/Sat:	0.00	0.53	0.53	0.00	0.64	0.11	0.23	0.23	0.23	0.16	0.16	0.16
Crit Moves:	****											
Green/Cycle:	0.55	0.55	0.55	0.55	0.55	0.55	0.35	0.35	0.35	0.35	0.35	0.35
Volume/Cap:	0.00	0.97	0.97	0.00	1.16	0.19	0.66	0.66	0.66	0.47	0.47	0.47
Delay/Veh:	0.0	27.2	27.2	0.0	93.4	9.0	34.8	34.8	34.8	29.5	29.5	29.5
User DelAdj:	1.00	1.00	1.00	1.00	0.59	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	27.2	27.2	0.0	55.0	9.0	34.8	34.8	34.8	29.5	29.5	29.5
LOS by Move:	A	C	C	A	D	A	C	C	C	C	C	C
HCM2kAvgQ:	0	32	30	0	61	2	9	9	9	7	7	7

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

19th Ave CS
Tier 4a - HOT Configuration

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1170 19th / Crespi

Cycle (sec): 110 Critical Vol./Cap.(X): 0.752
Loss Time (sec): 0 Average Delay (sec/veh): 61.5
Optimal Cycle: 75 Level Of Service: E

Street Name:	19th				Crespi				
Approach:	North Bound		South Bound		East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R
Control:	Permitted		Permitted		Split Phase		Split Phase		
Rights:	Include		Ignore		Include		Include		
Min. Green:	48	48	48	53	53	53	22	22	22
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	3	0	0	0	2	1	0

Volume Module:

Base Vol:	0	2266	0	0	3060	110	152	0	68	0	0	0
Growth Adj:	1.14	1.14	1.05	1.02	1.09	1.12	1.05	1.00	1.02	1.12	1.14	1.14
Initial Bse:	0	2576	0	0	3342	123	159	0	70	0	0	0
Added Vol:	0	61	0	0	102	-43	-53	0	38	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2637	0	0	3444	80	106	0	108	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.00	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	0	2690	0	0	3514	0	108	0	110	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2690	0	0	3514	0	108	0	110	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	2690	0	0	3514	0	108	0	110	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.89	1.00	1.00	0.89	0.91	0.93	1.00	0.83	1.00	1.00	1.00
Lanes:	0.00	3.00	0.00	0.00	3.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	5083	0	0	5083	0	1769	0	1583	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.53	0.00	0.00	0.69	0.00	0.06	0.00	0.07	0.00	0.00	0.00
Crit Moves:	****											
Green/Cycle:	0.47	0.47	0.47	0.61	0.61	0.61	0.29	0.29	0.29	0.00	0.00	0.00
Volume/Cap:	0.00	1.12	0.00	0.00	1.13	0.00	0.21	0.00	0.24	0.00	0.00	0.00
Delay/Veh:	0.0	83.2	0.0	0.0	72.8	0.0	30.3	0.0	30.8	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	0.64	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	83.2	0.0	0.0	46.9	0.0	30.3	0.0	30.8	0.0	0.0	0.0
LOS by Move:	A	F	A	A	D	A	C	A	C	A	A	A
HCM2kAvgQ:	0	50	0	0	58	0	3	0	3	0	0	0

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

19th Ave CS
Tier 4a - HOT ConfigurationImpact Analysis Report
Level Of Service

Intersection	Base		Future		Change
	Del/	V/	Del/	V/	in
	LOS	Veh	LOS	Veh	
#1070 Junipero Serra / 19th	D	41.1 1.195	E	70.1 1.259	+29.063 D/V
#1160 19th / Holloway	A	8.8 0.879	E	68.2 1.055	+59.424 D/V
#1170 19th / Crespi	D	37.1 0.814	E	60.8 0.807	+23.625 D/V

19th Ave CS
Tier 4a - HOT ConfigurationLevel Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1070 Junipero Serra / 19th																	

Cycle (sec):	120				Critical Vol./Cap.(X):				1.259								
Loss Time (sec):	17				Average Delay (sec/veh):				70.1								
Optimal Cycle:	180				Level Of Service:				E								

Street Name:	Junipero Serra								19th								
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				Permitted				Permitted				
Rights:	Ignore				Ignore				Ovl				Include				
Min. Green:	54	54	54		20	20	20		9	9	9		9	9	9		
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		
Lanes:	3	0	1	1	0	0	4	0	1	0	0	1	0	0	0		
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																	
Volume Module:																	
Base Vol:	2410	1660		25		0	1178		17		0	123	3060		0	47	50
Growth Adj:	1.09	1.12	1.12	1.06		1.09	1.18	1.12		1.06	1.01	1.09		1.12	1.06	1.09	
Initial Bse:	2621	1851		27		0	1388		19		0	124	3346		0	50	54
Added Vol:	98	186		2		0	41		0		0	37	199		0	1	26
PasserByVol:	0	0		0		0	0		0		0	0	0		0	0	0
Initial Fut:	2719	2037		29		0	1429		19		0	161	3545		0	51	80
User Adj:	1.00	1.00		0.00		1.00	1.00	0.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.98	0.98		0.00		0.98	0.98	0.00		0.98	0.98	0.98		0.98	0.98	0.98	
PHF Volume:	2775	2079		0		0	1458		0		0	164	3617		0	52	82
Reduct Vol:	0	0		0		0	0		0		0	0	0		0	0	0
Reduced Vol:	2775	2079		0		0	1458		0		0	164	3617		0	52	82
PCE Adj:	1.00	1.00		0.00		1.00	1.00	0.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00		0.00		1.00	1.00	0.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	2775	2079		0		0	1458		0		0	164	3617		0	52	82
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																	
Saturation Flow Module:																	
Sat/Lane:	1900	1900		1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.93		0.95		1.00	0.89	1.00		1.00	0.98	0.73		1.00	0.90	0.90	
Lanes:	3.00	2.00		0.00		0.00	4.00	1.00		0.00	1.00	3.00		0.00	0.39	0.61	
Final Sat.:	5147	3538		0		0	6778	1900		0	1862	4178		0	661	1046	
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																	
Capacity Analysis Module:																	
Vol/Sat:	0.54	0.59		0.00		0.00	0.22	0.00		0.00	0.09	0.87		0.00	0.08	0.08	
Crit Moves:	****				****				****								
Green/Cycle:	0.50	0.50		0.50		0.20	0.20	0.20		0.14	0.14	0.68		0.14	0.14	0.14	
Volume/Cap:	1.08	1.18		0.00		0.00	1.08	0.00		0.00	0.63	1.27		0.00	0.56	0.56	
Delay/Veh:	66.0	108		0.0		0.0	95.7	0.0		0.0	59.7	132.2		0.0	57.3	57.3	
User DelAdj:	1.00	1.00		1.00		1.00	1.00	1.00		1.00	1.00	0.32		1.00	1.00	1.00	
AdjDel/Veh:	66.0	108		0.0		0.0	95.7	0.0		0.0	59.7	42.0		0.0	57.3	57.3	
LOS by Move:	E	F		A		A	F	A		A	E	D		A	E	E	
HCM2kAvgQ:	46	61		0		0	20	0		0	7	87		0	5	5	

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

19th Ave CS
Tier 4a - HOT Configuration

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

Intersection #1160 19th / Holloway

Cycle (sec): 120 Critical Vol./Cap.(X): 1.055
Loss Time (sec): 0 Average Delay (sec/veh): 68.2
Optimal Cycle: 180 Level Of Service: E

Street Name:	19th			Holloway		
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:	0 59 59	0 59 59	33 33 33	30 30 30		
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0		
Lanes:	0 0 2 1 0	0 0 3 0 1	0 1 0 1 0	0 1 0 1 0		

Volume Module:

Base Vol:	0 2489 143	0 3047 145	88 167 88	45 296 41
Growth Adj:	1.23 1.12 1.15	1.18 1.18 1.27	1.15 1.19 1.18	1.27 1.35 1.23
Initial Bse:	0 2776 165	0 3591 184	101 199 104	57 401 51
Added Vol:	0 47 -35	0 165 66	60 22 54	73 117 1
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	0 2823 130	0 3756 250	161 221 158	130 518 52
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.98 0.98 0.98	0.98 0.98 0.98	0.98 0.98 0.98	0.98 0.98 0.98
PHF Volume:	0 2881 132	0 3833 255	165 225 161	133 528 53
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	0 2881 132	0 3833 255	165 225 161	133 528 53
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
FinalVolume:	0 2881 132	0 3833 255	165 225 161	133 528 53

Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	1.00 0.93 0.89	1.00 0.94 0.83	0.47 0.47 0.47	0.56 0.56 0.56
Lanes:	0.00 2.86 0.14	0.00 3.00 1.00	0.60 0.82 0.58	0.37 1.48 0.15
Final Sat.:	0 5056 233	0 5337 1583	538 735 527	393 1567 156

Capacity Analysis Module:

Vol/Sat:	0.00 0.57 0.57	0.00 0.72 0.16	0.31 0.31 0.31	0.34 0.34 0.34
Crit Moves:	****	****	****	****
Green/Cycle:	0.58 0.58 0.58	0.58 0.58 0.58	0.26 0.26 0.26	0.26 0.26 0.26
Volume/Cap:	0.00 0.99 0.99	0.00 1.24 0.28	1.17 1.17 1.17	1.29 1.29 1.29
Delay/Veh:	0.0 28.6 28.6	0.0 127 8.7	141.9 142 141.9	187.3 187 187.3
User DelAdj:	1.00 1.00 1.00	1.00 0.55 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	0.0 28.6 28.6	0.0 70.5 8.7	141.9 142 141.9	187.3 187 187.3
LOS by Move:	A C C	A E A	F F F	F F F
HCM2kAvgQ:	0 39 37	0 82 3	19 19 19	26 26 26

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

19th Ave CS
Tier 4a - HOT Configuration

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

Intersection #1170 19th / Crespi

Cycle (sec): 120 Critical Vol./Cap.(X): 0.807
Loss Time (sec): 0 Average Delay (sec/veh): 60.8
Optimal Cycle: 96 Level Of Service: E

Street Name:	19th			Crespi		
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	Split Phase	Split Phase		
Rights:	Include	Ignore	Ignore	Include		
Min. Green:	59 59 0	0 64 64	21 0 21	0 0 0		
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0		
Lanes:	0 0 3 0 0	0 0 2 1 0	1 0 0 0 1	0 0 0 0 0		

Volume Module:

Base Vol:	0 2485 0	0 3081 99	147 0 97	0 0 0
Growth Adj:	1.15 1.12 1.00	1.00 1.18 1.18	1.00 1.00 1.00	1.18 1.19 1.15
Initial Bse:	0 2772 0	0 3631 117	147 0 97	0 0 0
Added Vol:	0 99 0	0 219 74	-88 0 17	0 0 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	0 2871 0	0 3850 191	59 0 114	0 0 0
User Adj:	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 0.00	1.00 1.00 1.00
PHF Adj:	0.98 0.98 0.98	0.98 0.98 0.00	0.98 0.98 0.00	0.98 0.98 0.98
PHF Volume:	0 2929 0	0 3929 0	60 0 0	0 0 0
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	0 2929 0	0 3929 0	60 0 0	0 0 0
PCE Adj:	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 0.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 0.00	1.00 1.00 1.00
FinalVolume:	0 2929 0	0 3929 0	60 0 0	0 0 0

Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	1.00 0.89 1.00	1.00 0.89 0.91	0.93 1.00 1.00	1.00 1.00 1.00
Lanes:	0.00 3.00 0.00	0.00 3.00 0.00	1.00 0.00 1.00	0.00 0.00 0.00
Final Sat.:	0 5083 0	0 5083 0	1769 0 1900	0 0 0

Capacity Analysis Module:

Vol/Sat:	0.00 0.58 0.00	0.00 0.77 0.00	0.03 0.00 0.00	0.00 0.00 0.00
Crit Moves:	****	****	****	****
Green/Cycle:	0.51 0.51 0.51	0.69 0.69 0.69	0.28 0.28 0.28	0.00 0.00 0.00
Volume/Cap:	0.00 1.13 0.00	0.00 1.13 0.00	0.12 0.00 0.00	0.00 0.00 0.00
Delay/Veh:	0.0 85.1 0.0	0.0 67.5 0.0	33.1 0.0 0.0	0.0 0.0 0.0
User DelAdj:	1.00 1.00 1.00	1.00 0.64 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	0.0 85.1 0.0	0.0 43.0 0.0	33.1 0.0 0.0	0.0 0.0 0.0
LOS by Move:	A F A	A D A	C A A	A A A
HCM2kAvgQ:	0 57 0	0 70 0	2 0 0	0 0 0

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

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
#1070 Junipero Serra / 19th	E	58.0	0.942	D	54.5	0.968	-3.477 D/V
#1160 19th / Holloway	A	6.5	0.696	E	67.2	0.786	+60.715 D/V
#1170 19th / Crespi	D	41.8	0.762	E	61.5	0.752	+19.728 D/V

```

*****
Intersection #1070 Junipero Serra / 19th
*****
Cycle (sec):          110          Critical Vol./Cap.(X):          0.968
Loss Time (sec):      0          Average Delay (sec/veh):          54.5
Optimal Cycle:        180          Level Of Service:          D
*****

Street Name:          Junipero Serra          19th
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          Permitted          Permitted
Rights:                Include          Ignore          Ovl          Include
Min. Green:           46 46 46          18 18 18          9 9 9          9 9 9
Y+R:                  20.0 20.0 20.0          20.0 20.0 20.0          20.0 20.0 20.0
Lanes:                3 0 1 1 0          0 0 4 0 1          0 0 1 0 3          0 0 0 1 0
-----|-----|-----|-----|-----|-----|-----|-----|
Volume Module:
Base Vol:              2208 1679          8          0 1210          4          0 71 3047          0 56 62
Growth Adj:            1.13 1.14          1.12          1.10 1.09          1.11          1.12 1.10          1.10          1.11 1.12          1.13
Initial Bse:           2494 1908          9          0 1321          4          0 78 3345          0 63 70
Added Vol:             61 108          3          0 -1          0          0 21 119          0 0 15
PasserByVol:           0 0          0          0 0          0          0 0          0 0 0
Initial Fut:           2555 2016          12          0 1320          4          0 99 3464          0 63 85
User Adj:              1.00 1.00          1.00          1.00 1.00          0.00          1.00 1.00          1.00          1.00 1.00          1.00
PHF Adj:               0.98 0.98          0.98          0.98 0.98          0.00          0.98 0.98          0.98          0.98 0.98          0.98
PHF Volume:           2607 2058          12          0 1347          0          0 101 3535          0 64 87
Reduct Vol:            0 0          0          0 0          0          0 0          0 0 0
Reduced Vol:           2607 2058          12          0 1347          0          0 101 3535          0 64 87
PCE Adj:              1.00 1.00          1.00          1.00 1.00          0.00          1.00 1.00          1.00          1.00 1.00          1.00
MLF Adj:              1.00 1.00          1.00          1.00 1.00          0.00          1.00 1.00          1.00          1.00 1.00          1.00
FinalVolume:           2607 2058          12          0 1347          0          0 101 3535          0 64 87
-----|-----|-----|-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:              1900 1900          1900          1900 1900          1900          1900 1900          1900          1900 1900          1900
Adjustment:            0.99 0.93          0.93          1.00 0.89          1.00          1.00 0.98          0.81          1.00 0.90          0.90
Lanes:                 3.00 1.99          0.01          0.00 4.00          1.00          0.00 1.00          3.00          0.00 0.43          0.57
Final Sat.:           5662 3513          21          0 6778          1900          0 1862 4596          0 730 987
-----|-----|-----|-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:              0.46 0.59          0.59          0.00 0.20          0.00          0.00 0.05          0.77          0.00 0.09          0.09
Crit Moves:           *****
Green/Cycle:           0.50 0.50          0.50          0.21 0.21          0.21          0.12 0.12          0.67          0.12 0.12          0.12
Volume/Cap:            0.93 1.18          1.18          0.00 0.96          0.00          0.00 0.44          1.16          0.00 0.71          0.71
Delay/Veh:             27.0 109 109.4          0.0 58.7          0.0          0.0 50.5          81.2          0.0 64.1          64.1
User DelAdj:           1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          0.50          1.00 1.00          1.00
AdJDel/Veh:           27.0 109 109.4          0.0 58.7          0.0          0.0 50.5          40.8          0.0 64.1          64.1
LOS by Move:           C F F          A E A          A D D          D A E E
HCM2kAvgQ:             28 57 57          0 15          0          0 4 69          0 6 6
*****

```

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

19th Ave CS
Tier 4b - HOT ConfigurationLevel of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1160 19th / Holloway

```
*****
Cycle (sec):      110          Critical Vol./Cap.(X):      0.786
Loss Time (sec):    0          Average Delay (sec/veh):      67.2
Optimal Cycle:     79          Level Of Service:            E
*****
```

Street Name:	19th						Holloway					
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:	48	48	48	48	48	48	31	31	31	31	31	31
Y+R:	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Lanes:	0	0	2	1	0	0	0	0	4	0	1	0

Volume Module:												
Base Vol:	0	2288	130	0	3078	138	56	143	55	37	370	50
Growth Adj:	1.07	1.14	1.18	1.16	1.09	1.05	1.18	1.23	1.16	1.05	1.00	1.07
Initial Bse:	0	2601	154	0	3361	144	66	176	64	39	370	53
Added Vol:	0	29	-21	0	-22	22	66	34	85	-4	37	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2630	133	0	3339	166	132	210	149	35	407	53
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	0	2683	135	0	3407	170	135	214	152	35	415	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2683	135	0	3407	170	135	214	152	35	415	54
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	2683	135	0	3407	170	135	214	152	35	415	54

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.93	0.89	1.00	0.94	0.83	0.52	0.52	0.52	0.67	0.67	0.67
Lanes:	0.00	2.85	0.15	0.00	4.00	1.00	0.54	0.85	0.61	0.14	1.64	0.22
Final Sat.:	0	5033	254	0	7117	1583	533	844	599	177	2084	273

Capacity Analysis Module:												
Vol/Sat:	0.00	0.53	0.53	0.00	0.48	0.11	0.25	0.25	0.25	0.20	0.20	0.20
Crit Moves:	****											
Green/Cycle:	0.47	0.47	0.47	0.47	0.47	0.47	0.27	0.27	0.27	0.27	0.27	0.27
Volume/Cap:	0.00	1.13	1.13	0.00	1.02	0.23	0.94	0.94	0.94	0.74	0.74	0.74
Delay/Veh:	0.0	89.6	89.6	0.0	44.1	14.7	65.5	65.5	65.5	43.6	43.6	43.6
User DelAdj:	1.00	1.00	1.00	1.00	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	89.6	89.6	0.0	55.0	14.7	65.5	65.5	65.5	43.6	43.6	43.6
LOS by Move:	A	F	F	A	D	B	E	E	E	D	D	D
HCM2kAvgQ:	0	48	46	0	33	2	13	13	13	10	10	10

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

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19th Ave CS
Tier 4b - HOT ConfigurationLevel of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1170 19th / Crespi

```
*****
Cycle (sec):      110          Critical Vol./Cap.(X):      0.752
Loss Time (sec):    0          Average Delay (sec/veh):      61.5
Optimal Cycle:     75          Level Of Service:            E
*****
```

Street Name:	19th						Crespi					
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			Split Phase			Split Phase		
Rights:	Include			Ignore			Include			Include		
Min. Green:	48	48	48	53	53	53	22	22	22	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	3	0	0	0	1	0	0	0	0	0

Volume Module:												
Base Vol:	0	2266	0	0	3060	110	152	0	68	0	0	0
Growth Adj:	1.14	1.14	1.05	1.02	1.09	1.12	1.05	1.00	1.02	1.12	1.14	1.14
Initial Bse:	0	2576	0	0	3342	123	159	0	70	0	0	0
Added Vol:	0	61	0	0	102	-43	-53	0	38	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2637	0	0	3444	80	106	0	108	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.00	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	0	2690	0	0	3514	0	108	0	110	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2690	0	0	3514	0	108	0	110	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	2690	0	0	3514	0	108	0	110	0	0	0

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.89	1.00	1.00	0.89	1.00	0.93	1.00	0.83	1.00	1.00	1.00
Lanes:	0.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	5083	0	0	5083	1900	1769	0	1583	0	0	0

Capacity Analysis Module:												
Vol/Sat:	0.00	0.53	0.00	0.00	0.69	0.00	0.06	0.00	0.07	0.00	0.00	0.00
Crit Moves:	****											
Green/Cycle:	0.47	0.47	0.47	0.61	0.61	0.61	0.29	0.29	0.29	0.00	0.00	0.00
Volume/Cap:	0.00	1.12	0.00	0.00	1.13	0.00	0.21	0.00	0.24	0.00	0.00	0.00
Delay/Veh:	0.0	83.2	0.0	0.0	72.8	0.0	30.3	0.0	30.8	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	0.64	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	83.2	0.0	0.0	46.9	0.0	30.3	0.0	30.8	0.0	0.0	0.0
LOS by Move:	A	F	A	A	D	A	C	A	C	A	A	A
HCM2kAvgQ:	0	50	0	0	58	0	3	0	3	0	0	0

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

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19th Ave CS
Tier 4b - HOT Configuration

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change
	Del/	V/	Del/	V/	in
	LOS	Veh C	LOS	Veh C	
#1070 Junipero Serra / 19th	D	52.5 1.026	E	70.1 1.081	+17.632 D/V
#1160 19th / Holloway	A	7.9 0.801	F	85.6 0.929	+77.674 D/V
#1170 19th / Crespi	D	37.1 0.814	E	60.8 0.807	+23.625 D/V

19th Ave CS
Tier 4b - HOT Configuration

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

Intersection #1070 Junipero Serra / 19th

Cycle (sec): 120 Critical Vol./Cap.(X): 1.081
Loss Time (sec): 0 Average Delay (sec/veh): 70.1
Optimal Cycle: 180 Level Of Service: E

Street Name: Junipero Serra 19th

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			Permitted			Permitted		
Rights:	Ignore			Ignore			Ovl			Include		
Min. Green:	54	54	54	20	20	20	9	9	9	9	9	9
Y+R:	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Lanes:	3	0	1	1	0	0	0	4	0	1	0	0

Volume Module:

Base Vol:	2410	1660	25	0	1178	17	0	123	3060	0	47	50
Growth Adj:	1.09	1.12	1.06	1.09	1.18	1.12	1.06	1.01	1.09	1.12	1.06	1.09
Initial Bse:	2621	1851	27	0	1388	19	0	124	3346	0	50	54
Added Vol:	98	186	2	0	41	0	0	37	199	0	1	26
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2719	2037	29	0	1429	19	0	161	3545	0	51	80
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.00	0.98	0.98	0.00	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	2775	2079	0	0	1458	0	0	164	3617	0	52	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2775	2079	0	0	1458	0	0	164	3617	0	52	82
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2775	2079	0	0	1458	0	0	164	3617	0	52	82

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.93	0.95	1.00	0.89	1.00	1.00	0.98	0.73	1.00	0.90	0.90
Lanes:	3.00	2.00	0.00	0.00	4.00	1.00	0.00	1.00	3.00	0.00	0.39	0.61
Final Sat.:	5147	3538	0	0	6778	1900	0	1862	4178	0	661	1046

Capacity Analysis Module:

Vol/Sat:	0.54	0.59	0.00	0.00	0.22	0.00	0.00	0.09	0.87	0.00	0.08	0.08
Crit Moves:	****			****			****			****		
Green/Cycle:	0.50	0.50	0.50	0.20	0.20	0.20	0.14	0.14	0.68	0.14	0.14	0.14
Volume/Cap:	1.08	1.18	0.00	0.00	1.08	0.00	0.00	0.63	1.27	0.00	0.56	0.56
Delay/Veh:	66.0	108	0.0	0.0	95.7	0.0	0.0	59.7	132.2	0.0	57.3	57.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.32	1.00	1.00	1.00
AdjDel/Veh:	66.0	108	0.0	0.0	95.7	0.0	0.0	59.7	42.0	0.0	57.3	57.3
LOS by Move:	E	F	A	A	F	A	A	E	D	A	E	E
HCM2kAvgQ:	46	61	0	0	20	0	0	7	87	0	5	5

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

19th Ave CS
Tier 4b - HOT Configuration

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1160 19th / Holloway

Cycle (sec): 120 Critical Vol./Cap.(X): 0.929
Loss Time (sec): 0 Average Delay (sec/veh): 85.6
Optimal Cycle: 180 Level Of Service: F

Street Name:	19th				Holloway				
Approach:	North Bound		South Bound		East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R
Control:	Permitted		Permitted		Permitted		Permitted		
Rights:	Include		Include		Include		Include		
Min. Green:	0	59	59	0	61	61	32	32	32
Y+R:	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Lanes:	0	0	2	1	0	0	0	1	0

Volume Module:	19th				Holloway				
Base Vol:	0	2489	143	0	3047	145	88	167	88
Growth Adj:	1.23	1.12	1.15	1.18	1.18	1.27	1.15	1.19	1.18
Initial Bse:	0	2776	165	0	3591	184	101	199	104
Added Vol:	0	47	-35	0	165	66	60	22	54
PasserByVol:	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2823	130	0	3756	250	161	221	158
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	0	2881	132	0	3833	255	165	225	161
Reduct Vol:	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2881	132	0	3833	255	165	225	161
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	2881	132	0	3833	255	165	225	161

Saturation Flow Module:	19th				Holloway				
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.89	0.89	1.00	0.89	0.83	0.46	0.46	0.57
Lanes:	0.00	2.87	0.13	0.00	4.00	1.00	0.60	0.82	0.58
Final Sat.:	0	4826	222	0	6778	1583	525	718	515

Capacity Analysis Module:	19th				Holloway				
Vol/Sat:	0.00	0.60	0.60	0.00	0.57	0.16	0.31	0.31	0.31
Crit Moves:	****				****				
Green/Cycle:	0.51	0.51	0.51	0.51	0.51	0.51	0.31	0.31	0.31
Volume/Cap:	0.00	1.18	1.18	0.00	1.12	0.32	1.03	1.03	1.03
Delay/Veh:	0.0	108	108.3	0.0	80.4	14.3	87.4	87.4	87.4
User DelAdj:	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	108	108.3	0.0	69.0	14.3	87.4	87.4	87.4
LOS by Move:	A	F	F	A	E	B	F	F	F
HCM2kAvgQ:	0	59	59	0	51	4	16	16	22

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

19th Ave CS
Tier 4b - HOT Configuration

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1170 19th / Crespi

Cycle (sec): 120 Critical Vol./Cap.(X): 0.807
Loss Time (sec): 0 Average Delay (sec/veh): 60.8
Optimal Cycle: 96 Level Of Service: E

Street Name:	19th				Crespi				
Approach:	North Bound		South Bound		East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R
Control:	Permitted		Permitted		Split Phase		Split Phase		
Rights:	Include		Ignore		Ignore		Include		
Min. Green:	59	59	0	0	64	64	21	0	21
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	3	0	0	0	1	0	0

Volume Module:	19th				Crespi				
Base Vol:	0	2485	0	0	3081	99	147	0	97
Growth Adj:	1.15	1.12	1.00	1.00	1.18	1.18	1.00	1.00	1.15
Initial Bse:	0	2772	0	0	3631	117	147	0	97
Added Vol:	0	99	0	0	219	74	-88	0	17
PasserByVol:	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2871	0	0	3850	191	59	0	114
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.00	0.98	0.98
PHF Volume:	0	2929	0	0	3929	0	60	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2929	0	0	3929	0	60	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
FinalVolume:	0	2929	0	0	3929	0	60	0	0

Saturation Flow Module:	19th				Crespi				
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.89	1.00	1.00	0.89	1.00	0.93	1.00	1.00
Lanes:	0.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	0.00
Final Sat.:	0	5083	0	0	5083	1900	1769	0	1900

Capacity Analysis Module:	19th				Crespi				
Vol/Sat:	0.00	0.58	0.00	0.00	0.77	0.00	0.03	0.00	0.00
Crit Moves:	****				****				
Green/Cycle:	0.51	0.51	0.51	0.69	0.69	0.69	0.28	0.28	0.28
Volume/Cap:	0.00	1.13	0.00	0.00	1.13	0.00	0.12	0.00	0.00
Delay/Veh:	0.0	85.1	0.0	0.0	67.5	0.0	33.1	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	0.64	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	85.1	0.0	0.0	43.0	0.0	33.1	0.0	0.0
LOS by Move:	A	F	A	A	D	A	C	A	A
HCM2kAvgQ:	0	57	0	0	70	0	2	0	0

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

Tier 4c AM Fri Jan 8, 2010 11:16:41 Page 2-1

19th Ave CS
Tier 4c - HOT Configuration

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	LOS	Veh C	LOS	Veh C	
#1070 Junipero Serra / 19th	D	36.9 0.756	E	66.6 0.776	+29.751 D/V
#1160 19th / Holloway	A	8.1 0.696	F	99.3 0.776	+91.168 D/V
#1170 19th / Crespi	D	46.7 0.619	F	105.8 0.640	+59.148 D/V

Tier 4c AM Fri Jan 8, 2010 11:16:41 Page 3-1

19th Ave CS
Tier 4c - HOT Configuration

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

Intersection #1070 Junipero Serra / 19th

Cycle (sec):	110	Critical Vol./Cap.(X):	0.776
Loss Time (sec):	0	Average Delay (sec/veh):	66.6
Optimal Cycle:	83	Level Of Service:	E

Street Name: Junipero Serra 19th

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	Permitted	Permitted
Rights:	Include	Ignore	Ovl	Include

Min. Green:	46	46	46	18	18	18	9	9	9	9	9	9
Y+R:	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Lanes:	3	0	1	1	0	0	0	4	0	1	0	0

Volume Module:

Base Vol:	2208	1679	8	0	1210	4	0	71	3047	0	56	62
Growth Adj:	1.13	1.14	1.12	1.10	1.09	1.11	1.12	1.10	1.10	1.11	1.12	1.13
Initial Bse:	2494	1908	9	0	1321	4	0	78	3345	0	63	70
Added Vol:	117	54	3	0	-1	0	0	21	119	0	6	14
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2611	1962	12	0	1320	4	0	99	3464	0	69	84
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.00	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	2664	2002	12	0	1347	0	0	101	3535	0	70	86
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2664	2002	12	0	1347	0	0	101	3535	0	70	86
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2664	2002	12	0	1347	0	0	101	3535	0	70	86

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.99	0.93	0.93	1.00	0.89	1.00	1.00	0.98	0.81	1.00	0.91	0.91
Lanes:	3.00	1.99	0.01	0.00	4.00	1.00	0.00	1.00	4.00	0.00	0.45	0.55
Final Sat.:	5662	3513	21	0	6778	1900	0	1862	6128	0	776	948

Capacity Analysis Module:

Vol/Sat:	0.47	0.57	0.57	0.00	0.20	0.00	0.00	0.05	0.58	0.00	0.09	0.09
Crit Moves:	****											
Green/Cycle:	0.46	0.46	0.46	0.24	0.24	0.24	0.13	0.13	0.59	0.13	0.13	0.13
Volume/Cap:	1.02	1.24	1.24	0.00	0.83	0.00	0.00	0.42	0.98	0.00	0.70	0.70
Delay/Veh:	48.1	138	137.5	0.0	44.7	0.0	0.0	49.3	23.7	0.0	62.2	62.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.08	1.00	1.00	1.00
AdjDel/Veh:	48.1	138	137.5	0.0	44.7	0.0	0.0	49.3	49.2	0.0	62.2	62.2
LOS by Move:	D	F	F	A	D	A	A	D	D	A	E	E
HCM2kAvgQ:	35	59	59	0	13	0	0	3	38	0	7	7

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

19th Ave CS
Tier 4c - HOT ConfigurationLevel of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1160 19th / Holloway

Cycle (sec):	110	Critical Vol./Cap.(X):	0.776
Loss Time (sec):	0	Average Delay (sec/veh):	99.3
Optimal Cycle:	79	Level Of Service:	F

Street Name:	19th			Holloway		
Approach:	North Bound			South Bound		
Movement:	L	T	R	L	T	R
Control:	Permitted			Permitted		
Rights:	Include			Include		
Min. Green:	48	48	48	48	48	48
Y+R:	20.0	20.0	20.0	20.0	20.0	20.0
Lanes:	0	0	2	0	0	4

Volume Module:						
Base Vol:	0	2288	130	0	3078	138
Growth Adj:	1.07	1.14	1.18	1.16	1.09	1.05
Initial Bse:	0	2601	154	0	3361	144
Added Vol:	0	29	-21	0	-22	22
PasserByVol:	0	0	0	0	0	0
Initial Fut:	0	2630	133	0	3339	166
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	0	2683	135	0	3407	170
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	0	2683	135	0	3407	170
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	2683	135	0	3407	170

Saturation Flow Module:						
Sat/Lane:	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.93	0.89	1.00	0.94	0.83
Lanes:	0.00	2.85	0.15	0.00	4.00	1.00
Final Sat.:	0	5033	254	0	7117	1583

Capacity Analysis Module:						
Vol/Sat:	0.00	0.53	0.53	0.00	0.48	0.11
Crit Moves:	0.24	0.24	0.24	0.16	0.16	0.16
Green/Cycle:	0.47	0.47	0.47	0.47	0.47	0.47
Volume/Cap:	0.00	1.13	1.13	0.00	1.02	0.23
Delay/Veh:	0.0	89.6	89.6	0.0	44.1	14.7
User DelAdj:	1.00	1.00	1.00	1.00	2.85	1.00
AdjDel/Veh:	0.0	89.6	89.6	0.0	125	14.7
LOS by Move:	A	F	F	A	F	B
HCM2kAvgQ:	0	48	46	0	33	2

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

19th Ave CS
Tier 4c - HOT ConfigurationLevel of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1170 19th / Crespi

Cycle (sec):	110	Critical Vol./Cap.(X):	0.640
Loss Time (sec):	0	Average Delay (sec/veh):	105.8
Optimal Cycle:	95	Level Of Service:	F

Street Name:	19th			Crespi		
Approach:	North Bound			South Bound		
Movement:	L	T	R	L	T	R
Control:	Protected			Permitted		
Rights:	Include			Split Phase		
Min. Green:	20	48	48	53	53	53
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	0	3

Volume Module:						
Base Vol:	4	2266	0	0	3060	110
Growth Adj:	1.14	1.14	1.05	1.02	1.09	1.12
Initial Bse:	5	2576	0	0	3342	123
Added Vol:	62	61	0	0	102	-68
PasserByVol:	0	0	0	0	0	0
Initial Fut:	67	2637	0	0	3444	55
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	68	2690	0	0	3514	56
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	68	2690	0	0	3514	56
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	68	2690	0	0	3514	56

Saturation Flow Module:						
Sat/Lane:	1900	1900	1900	1900	1900	1900
Adjustment:	0.70	0.89	1.00	1.00	0.89	0.89
Lanes:	1.00	3.00	0.00	0.00	3.94	0.06
Final Sat.:	1327	5083	0	0	6658	106

Capacity Analysis Module:						
Vol/Sat:	0.05	0.53	0.00	0.00	0.53	0.06
Crit Moves:	0.07	0.00	0.00	0.07	0.00	0.00
Green/Cycle:	0.42	0.42	0.42	0.57	0.57	0.57
Volume/Cap:	0.12	1.27	0.00	0.00	0.93	0.93
Delay/Veh:	17.6	152	0.0	0.0	19.1	19.1
User DelAdj:	1.00	1.00	1.00	1.00	4.10	1.00
AdjDel/Veh:	17.6	152	0.0	0.0	78.2	19.1
LOS by Move:	B	F	A	A	E	B
HCM2kAvgQ:	1	60	0	0	26	26

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

19th Ave CS
Tier 4c - HOT Configuration

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change
	Del/	V/	Del/	V/	in
	LOS Veh	C	LOS Veh	C	
#1070 Junipero Serra / 19th	C	34.6 0.822	F	97.6 0.872	+63.065 D/V
#1160 19th / Holloway	A	9.0 0.801	F	123.2 0.884	+114.221 D/
#1170 19th / Crespi	D	38.6 0.692	F	124.7 0.764	+86.110 D/V

19th Ave CS
Tier 4c - HOT Configuration

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

Intersection #1070 Junipero Serra / 19th															

Cycle (sec):	120			Critical Vol./Cap.(X):						0.872					
Loss Time (sec):	0			Average Delay (sec/veh):						97.6					
Optimal Cycle:	145			Level Of Service:						F					

Street Name:	Junipero Serra			19th											
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			Permitted			Permitted					
Rights:	Ignore			Ignore			Ovl			Include					
Min. Green:	54	54	54	20	20	20	9	9	68	9	9	9			
Y+R:	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0			
Lanes:	3	0	1	1	0	0	0	1	0	4	0	0	0	1	0
----- ----- ----- -----															
Volume Module:															
Base Vol:	2410	1660	25	0	1178	17	0	123	3060	0	47	50			
Growth Adj:	1.09	1.12	1.06	1.09	1.18	1.12	1.06	1.01	1.09	1.12	1.06	1.09			
Initial Bse:	2621	1851	27	0	1388	19	0	124	3346	0	50	54			
Added Vol:	246	45	2	0	41	0	0	37	199	0	10	23			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	2867	1896	29	0	1429	19	0	161	3545	0	60	77			
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	0.98	0.98	0.00	0.98	0.98	0.00	0.98	0.98	0.98	0.98	0.98	0.98			
PHF Volume:	2926	1935	0	0	1458	0	0	164	3617	0	61	79			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	2926	1935	0	0	1458	0	0	164	3617	0	61	79			
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	2926	1935	0	0	1458	0	0	164	3617	0	61	79			
----- ----- ----- -----															
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:	0.90	0.93	0.95	1.00	0.89	1.00	1.00	0.98	0.73	1.00	0.91	0.91			
Lanes:	3.00	2.00	0.00	0.00	4.00	1.00	0.00	1.00	4.00	0.00	0.44	0.56			
Final Sat.:	5147	3538	0	0	6778	1900	0	1862	5571	0	750	970			
----- ----- ----- -----															
Capacity Analysis Module:															
Vol/Sat:	0.57	0.55	0.00	0.00	0.22	0.00	0.00	0.09	0.65	0.00	0.08	0.08			
Crit Moves:	****			****			****								
Green/Cycle:	0.45	0.45	0.45	0.25	0.25	0.25	0.17	0.17	0.62	0.17	0.17	0.17			
Volume/Cap:	1.26	1.22	0.00	0.00	0.86	0.00	0.00	0.52	1.05	0.00	0.48	0.48			
Delay/Veh:	149.6	131	0.0	0.0	49.0	0.0	0.0	51.3	41.5	0.0	50.5	50.5			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.48	1.00	1.00	1.00			
AdjDeL/Veh:	149.6	131	0.0	0.0	49.0	0.0	0.0	51.3	61.6	0.0	50.5	50.5			
LOS by Move:	F	F	A	A	D	A	A	D	E	A	D	D			
HCM2kAvgQ:	62	59	0	0	15	0	0	6	49	0	5	5			

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

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19th Ave CS
Tier 4c - HOT Configuration

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1160 19th / Holloway

Cycle (sec): 120 Critical Vol./Cap.(X): 0.884
 Loss Time (sec): 0 Average Delay (sec/veh): 123.2
 Optimal Cycle: 124 Level Of Service: F

Street Name:	19th				Holloway			
Approach:	North Bound		South Bound		East Bound		West Bound	
Movement:	L	T	R	L	T	R	L	T
Control:	Permitted		Permitted		Permitted		Permitted	
Rights:	Include		Include		Include		Include	
Min. Green:	0	59	59	0	61	61	32	32
Y+R:	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Lanes:	0	0	2	1	0	0	0	1

Volume Module:

Base Vol:	0	2489	143	0	3047	145	88	167	88	45	296	41
Growth Adj:	1.23	1.12	1.15	1.18	1.18	1.27	1.15	1.19	1.18	1.27	1.35	1.23
Initial Bse:	0	2776	165	0	3591	184	101	199	104	57	401	51
Added Vol:	0	47	-35	0	165	66	60	22	54	-2	49	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2823	130	0	3756	250	161	221	158	55	450	52
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	0	2881	132	0	3833	255	165	225	161	56	459	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2881	132	0	3833	255	165	225	161	56	459	53
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	2881	132	0	3833	255	165	225	161	56	459	53

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.89	0.89	1.00	0.89	0.83	0.51	0.51	0.51	0.65	0.65	0.65
Lanes:	0.00	2.87	0.13	0.00	4.00	1.00	0.60	0.82	0.58	0.20	1.62	0.18
Final Sat.:	0	4826	222	0	6778	1583	574	785	562	243	1991	228

Capacity Analysis Module:

Vol/Sat:	0.00	0.60	0.60	0.00	0.57	0.16	0.29	0.29	0.29	0.23	0.23	0.23
Crit Moves:	****											
Green/Cycle:	0.51	0.51	0.51	0.51	0.51	0.51	0.31	0.31	0.31	0.31	0.31	0.31
Volume/Cap:	0.00	1.18	1.18	0.00	1.12	0.32	0.94	0.94	0.94	0.75	0.75	0.75
Delay/Veh:	0.0	108	108.3	0.0	80.4	14.3	65.5	65.5	65.5	44.5	44.5	44.5
User DelAdj:	1.00	1.00	1.00	1.00	2.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	108	108.3	0.0	162	14.3	65.5	65.5	65.5	44.5	44.5	44.5
LOS by Move:	A	F	F	A	F	B	E	E	E	D	D	D
HCM2kAvgQ:	0	59	59	0	51	4	14	14	14	12	12	12

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

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19th Ave CS
Tier 4c - HOT Configuration

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1170 19th / Crespi

Cycle (sec): 120 Critical Vol./Cap.(X): 0.764
 Loss Time (sec): 0 Average Delay (sec/veh): 124.7
 Optimal Cycle: 144 Level Of Service: F

Street Name:	19th				Crespi			
Approach:	North Bound		South Bound		East Bound		West Bound	
Movement:	L	T	R	L	T	R	L	T
Control:	Protected		Permitted		Split Phase		Split Phase	
Rights:	Include		Include		Ignore		Include	
Min. Green:	59	59	0	0	64	64	21	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	0	0	1	0

Volume Module:

Base Vol:	60	2485	0	0	3081	99	147	0
Growth Adj:	1.15	1.12	1.00	1.00	1.18	1.18	1.00	1.00
Initial Bse:	69	2772	0	0	3631	117	147	0
Added Vol:	157	99	0	0	219	-2	-88	0
PasserByVol:	0	0	0	0	0	0	0	0
Initial Fut:	226	2871	0	0	3850	115	59	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.00	0.98
PHF Volume:	231	2929	0	0	3929	118	60	0
Reduct Vol:	0	0	0	0	0	0	0	0
Reduced Vol:	231	2929	0	0	3929	118	60	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
FinalVolume:	231	2929	0	0	3929	118	60	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.89	1.00	1.00	0.89	0.89	0.93	1.00
Lanes:	1.00	3.00	0.00	0.00	3.88	0.12	1.00	0.00
Final Sat.:	1769	5083	0	0	6554	196	1769	0

Capacity Analysis Module:

Vol/Sat:	0.13	0.58	0.00	0.00	0.60	0.60	0.03	0.00
Crit Moves:	****							
Green/Cycle:	0.44	0.44	0.44	0.61	0.61	0.61	0.20	0.20
Volume/Cap:	0.30	1.31	0.00	0.00	0.98	0.98	0.17	0.00
Delay/Veh:	23.2	179	0.0	0.0	24.4	24.4	48.4	0.0
User DelAdj:	1.00	1.00	1.00	1.00	3.85	1.00	1.00	1.00
AdjDel/Veh:	23.2	179	0.0	0.0	94.1	24.4	48.4	0.0
LOS by Move:	C	F	A	A	F	C	D	A
HCM2kAvgQ:	5	79	0	0	44	44	2	0

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