

APPENDIX C

Revised Level of Service Calculations

Scenario Report

Scenario: Existing AM

Command: Existing_2009_AM
 Volume: AM_2009
 Geometry: AM
 Impact Fee: Default Impact Fee
 Trip Generation: Existing AM
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Existing_AM

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Bayfront Exp. & Marsh Rd.	C	21.5 0.738	C	21.5 0.738	+ 0.000 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	15.6 0.614	B	15.6 0.614	+ 0.000 D/V
# 3 US 101 SB Ramps & Marsh Rd.	C	20.0 0.828	C	20.0 0.828	+ 0.000 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	C	24.1 0.790	C	21.8 0.790	-2.367 D/V
# 5 Bohannon/ Florence & Marsh Rd.	C	26.7 0.655	B	15.7 0.655	-10.993 D/V
# 6 Bay Rd. & Marsh Rd.	B	16.2 0.564	B	15.9 0.564	-0.290 D/V
# 7 Middlefield at Marsh (Town of	C	25.3 0.587	C	22.6 0.587	-2.617 D/V
# 8 Bayfront Exp. & Willow Rd.	C	27.2 0.586	C	27.2 0.586	+ 0.000 D/V
# 9 Hamilton Ave. & Willow Rd.	C	22.6 0.537	C	22.6 0.537	+ 0.000 D/V
# 10 Ivy Dr. & Willow Rd.	B	17.7 0.498	B	17.7 0.498	+ 0.000 D/V
# 11 O'Brien Dr. & Willow Rd.	B	14.8 0.446	B	14.8 0.446	+ 0.000 D/V
# 12 Newbridge St. & Willow Rd.	D	45.9 0.868	D	45.9 0.868	+ 0.000 D/V
# 13 Bay Rd. & Willow Rd.	B	19.5 0.667	B	19.5 0.667	+ 0.000 D/V
# 14 Durham St. & Willow Rd.	C	22.2 0.686	B	12.1 0.686	-10.090 D/V
# 15 Coleman Ave. & Willow Rd.	B	12.3 0.687	B	12.3 0.687	+ 0.054 D/V
# 16 Gilbert Ave. & Willow Rd.	B	13.5 0.637	B	12.9 0.637	-0.583 D/V
# 17 Middlefield Rd. & Willow Rd.	F	96.4 0.911	E	56.8 0.906	-39.536 D/V
# 18 Bayfront Exp. & University Ave	C	28.3 0.774	C	28.3 0.774	+ 0.000 D/V
# 19 O'Brien Dr. & University Ave.	A	6.2 0.527	A	6.2 0.527	+ 0.000 D/V
# 20 University & Kavanaugh	B	13.6 0.542	B	13.6 0.542	+ 0.000 D/V
# 21 University & Bay	C	26.8 0.616	C	26.8 0.616	+ 0.000 D/V
# 22 University & Runnymede	B	19.9 0.603	B	19.9 0.603	+ 0.000 D/V
# 23 University & Bell	A	8.1 0.236	A	8.1 0.236	+ 0.000 D/V
# 24 University & Donohoe	D	36.5 0.890	D	36.5 0.890	+ 0.000 D/V
# 25 NB 101 & Donohoe St	B	13.5 0.358	B	13.5 0.358	+ 0.000 D/V

Intersection		Base		Future		Change	
		Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C		
# 26 University & SB US 101	B	16.8	0.618	B 16.8	0.618	+ 0.000	D/V
# 27 University Ave. & Woodland	D	36.0	0.857	D 36.0	0.857	+ 0.000	D/V
# 28 Middlefield Rd. & University A	C	33.2	0.706	C 33.2	0.706	+ 0.000	D/V
# 29 Bayfront Exp. & Chrysler Dr.	A	7.2	0.562	A 7.2	0.562	+ 0.000	D/V
# 30 Bayfront Exp. & Chilco St.	B	16.8	0.570	B 16.8	0.570	+ 0.000	D/V
# 31 Middlefield Rd. & Ravenswood A	C	21.5	0.583	C 21.5	0.583	-0.000	D/V
# 32 Middlefield Rd. & Ringwood Ave	C	28.2	0.452	C 25.6	0.452	-2.650	D/V
# 33 Middlefield Rd and Lytton Ave	C	29.6	0.572	C 29.6	0.572	+ 0.000	D/V
# 34 Bayfront Expy. and Facebook We	A	1.1	0.495	A 1.1	0.495	+ 0.000	D/V

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

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.738
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 21.5
Optimal Cycle: 69 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	3	0	0	1	0	1	0	1	0	0	2	0

Volume Module: >> Count Date: 22 Oct 2009 << 7:45 - 8:45 AM

Base Vol:	2297	189	23	7	58	148	182	20	997	7	19	5
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2297	189	23	7	58	148	182	20	997	7	19	5
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:	2297	189	23	7	58	148	182	20	997	7	19	5
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:	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 Volume:	2297	189	23	7	58	148	182	20	997	7	19	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2297	189	23	7	58	148	182	20	997	7	19	5
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:	2297	189	23	7	58	148	182	20	997	7	19	5

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.96	0.96	0.93	0.93	0.83	0.94	0.94	0.73	0.95	0.95	0.95
Lanes:	3.00	0.89	0.11	0.22	1.78	1.00	0.90	0.10	2.00	0.23	0.61	0.16
Final Sat.:	5147	1633	199	379	3141	1583	1606	176	2786	407	1104	290

Capacity Analysis Module:

Vol/Sat:	0.45	0.12	0.12	0.02	0.02	0.09	0.11	0.11	0.36	0.02	0.02	0.02
Crit Moves:	****			****			****			****		
Green Time:	77.2	77.2	77.2	16.2	16.2	16.2	19.6	19.6	96.8	5.0	5.0	5.0
Volume/Cap:	0.75	0.19	0.19	0.15	0.15	0.75	0.75	0.75	0.48	0.45	0.45	0.45
Uniform Del:	19.4	12.1	12.1	50.8	50.8	55.0	52.9	52.9	6.6	61.1	61.1	61.1
IncrementDel:	1.1	0.1	0.1	0.2	0.2	14.9	11.2	11.2	0.2	4.5	4.5	4.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	20.4	12.2	12.2	50.9	50.9	69.9	64.1	64.1	6.8	65.7	65.7	65.7
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:	20.4	12.2	12.2	50.9	50.9	69.9	64.1	64.1	6.8	65.7	65.7	65.7
LOS by Move:	C	B	B	D	D	E	E	E	A	E	E	E
HCM2kAvgQ:	23	4	4	1	1	7	8	8	9	2	2	2

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.614
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 15.6
Optimal Cycle: 36 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Permitted, Ignored), and Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM
Base Vol: 818 0 289 0 0 0 0 1138 506 0 821 1699
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.00 0.83 1.00 1.00 1.00 1.00 0.93 1.00 1.00 0.93 1.00

Capacity Analysis Module:
Vol/Sat: 0.24 0.00 0.18 0.00 0.00 0.00 0.00 0.32 0.00 0.00 0.23 0.00
Crit Moves: ****
Green Time: 31.1 0.0 31.1 0.0 0.0 0.0 0.0 41.9 0.0 0.0 41.9 0.0

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.828
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 20.0
Optimal Cycle: 65 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Permitted, Ignored), and Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM
Base Vol: 0 0 0 879 0 558 0 834 583 0 1426 86
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.90 1.00 0.83 1.00 0.93 1.00 1.00 0.93 1.00

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.26 0.00 0.35 0.00 0.24 0.00 0.00 0.40 0.00
Crit Moves: ****
Green Time: 0.0 0.0 0.0 34.1 0.0 34.1 0.0 38.9 0.0 0.0 38.9 0.0

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.790
Loss Time (sec): 14 (Y+R=4.0 sec) Average Delay (sec/veh): 21.8
Optimal Cycle: 74 Level Of Service: C

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

Table with columns: Volume Module, Count, Date (8 Oct 2009), Time (7:15 - 8:15 AM), Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.655
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.7
Optimal Cycle: 31 Level Of Service: B

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

Table with columns: Volume Module, Count, Date (7 Oct 2009), Time (7:30 - 8:30 AM), Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #6 Bay Rd. & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.564
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.9
Optimal Cycle: 25 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 columns for time intervals (6 Oct 2009 << 7:30 - 8:30 AM).

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)
Cycle (sec): 110 Critical Vol./Cap. (X): 0.587
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 22.6
Optimal Cycle: 43 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 columns for time intervals (18 Nov 2009 << 7:15-8:15 a.m.).

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.586
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 27.2
Optimal Cycle: 49 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 traffic flow categories. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns: Sat/Lane, Adjustment, Lanes, and Final Sat. for 12 traffic flow categories.

Table with 12 columns: Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.537
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 22.6
Optimal Cycle: 42 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 traffic flow categories. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns: Sat/Lane, Adjustment, Lanes, and Final Sat. for 12 traffic flow categories.

Table with 12 columns: Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #10 Ivy Dr. & Willow Rd.
Cycle (sec): 130 Critical Vol./Cap. (X): 0.498
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 17.7
Optimal Cycle: 39 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 0 0 0 1 0 186 82 652 0 0 1021 14
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.85 1.00 0.85 0.93 0.93 1.00 1.00 0.93 0.93

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.12 0.00 0.12 0.05 0.18 0.00 0.00 0.29 0.29
Crit Moves: ****
Green Time: 0.0 0.0 0.0 30.3 0.0 30.3 12.1 88.7 0.0 0.0 76.6 76.6

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

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

Intersection #11 O'Brien Dr. & Willow Rd.
Cycle (sec): 130 Critical Vol./Cap. (X): 0.446
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.8
Optimal Cycle: 36 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 8 Oct 2009 << 8:00 am - 9:00 am
Base Vol: 130 0 67 0 0 0 0 697 250 102 1171 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

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.00 0.90 1.00 1.00 1.00 1.00 0.93 0.83 0.93 0.93 1.00

Capacity Analysis Module:
Vol/Sat: 0.05 0.00 0.08 0.00 0.00 0.00 0.00 0.20 0.16 0.06 0.33 0.00
Crit Moves: ****
Green Time: 22.5 0.0 22.5 0.0 0.0 0.0 0.0 74.7 74.7 21.8 96.5 0.0

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.868
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 45.9
Optimal Cycle: 114 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 7 Oct 2009 << 7:30 AM to 8:30 AM
Base Vol: 350 111 36 28 178 384 148 826 155 28 1221 4
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 350 111 36 28 178 384 148 826 155 28 1221 4
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: 350 111 36 28 178 384 148 826 155 28 1221 4
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: 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 Volume: 350 111 36 28 178 384 148 826 155 28 1221 4
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 350 111 36 28 178 384 148 826 155 28 1221 4
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: 350 111 36 28 178 384 148 826 155 28 1221 4

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.98 0.83 0.93 0.98 0.83 0.93 0.87 0.87 0.93 0.93 0.93
Lanes: 2.00 1.00 1.00 1.00 1.00 1.00 1.00 2.53 0.47 1.00 1.99 0.01
Final Sat.: 3432 1862 1583 1769 1862 1583 1769 4177 784 1769 3526 12

Capacity Analysis Module:
Vol/Sat: 0.10 0.06 0.02 0.02 0.10 0.24 0.08 0.20 0.20 0.02 0.35 0.35
Crit Moves: ****
Green Time: 15.3 15.3 15.3 36.3 36.3 36.3 12.5 53.9 53.9 10.5 51.9 51.9
Volume/Cap: 0.87 0.51 0.19 0.06 0.34 0.87 0.87 0.48 0.48 0.20 0.87 0.87
Uniform Del: 56.4 53.8 51.8 34.3 37.3 44.6 57.9 27.8 27.8 55.8 35.9 35.9
IncrementDel: 17.8 1.9 0.5 0.0 0.4 16.5 34.6 0.2 0.2 0.7 6.0 6.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 74.2 55.8 52.3 34.3 37.7 61.1 92.5 27.9 27.9 56.5 41.9 41.9
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: 74.2 55.8 52.3 34.3 37.7 61.1 92.5 27.9 27.9 56.5 41.9 41.9
LOS by Move: E E D C D E F C C E D D
HCM2kAvgQ: 10 5 1 6 17 8 10 10 1 25 25

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.667
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 19.5
Optimal Cycle: 53 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 0 0 0 361 0 75 64 1378 0 0 1114 319
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 361 0 75 64 1378 0 0 1114 319
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 0 0 361 0 75 64 1378 0 0 1114 319
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: 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 Volume: 0 0 0 361 0 75 64 1378 0 0 1114 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 361 0 75 64 1378 0 0 1114 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: 0 0 0 361 0 75 64 1378 0 0 1114 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.93 1.00 0.83 0.93 0.93 1.00 1.00 0.93 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 0 0 0 1769 0 1583 1769 3538 0 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.20 0.00 0.05 0.04 0.39 0.00 0.00 0.31 0.00
Crit Moves: ****
Green Time: 0.0 0.0 0.0 30.6 0.0 30.6 8.0 58.4 0.0 0.0 50.4 0.0
Volume/Cap: 0.00 0.00 0.00 0.67 0.00 0.15 0.45 0.67 0.00 0.00 0.62 0.00
Uniform Del: 0.0 0.0 0.0 30.3 0.0 25.3 43.9 14.2 0.0 0.0 18.0 0.0
IncrementDel: 0.0 0.0 0.0 3.2 0.0 0.1 2.3 0.8 0.0 0.0 0.7 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 0.0 0.0 0.0 33.4 0.0 25.4 46.2 15.0 0.0 0.0 18.7 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 33.4 0.0 25.4 46.2 15.0 0.0 0.0 18.7 0.0
LOS by Move: A A A C A C D B A A B A
HCM2kAvgQ: 0 0 0 11 0 2 2 16 0 0 13 0

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

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

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.686
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 12.1
Optimal Cycle: 44 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM. Table with 12 columns for volume counts and 12 rows for various traffic metrics.

Saturation Flow Module: Table with 12 columns for Sat/Lane and 4 rows for Adjustment, Lanes, Final Sat., and other metrics.

Capacity Analysis Module: Table with 12 columns for Vol/Sat and 12 rows for Crit Moves, Green Time, Volume/Cap, and other capacity-related metrics.

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

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

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.687
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 12.3
Optimal Cycle: 44 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM. Table with 12 columns for volume counts and 12 rows for various traffic metrics.

Saturation Flow Module: Table with 12 columns for Sat/Lane and 4 rows for Adjustment, Lanes, Final Sat., and other metrics.

Capacity Analysis Module: Table with 12 columns for Vol/Sat and 12 rows for Crit Moves, Green Time, Volume/Cap, and other capacity-related metrics.

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

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

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.637
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 12.9
Optimal Cycle: 39 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 4 columns: Volume Module, Count, Date, and 12 rows of traffic volume data for different approaches and times.

Table with 4 columns: Sat/Lane, Adjustment, Lanes, Final Sat., and 12 rows of saturation flow data.

Table with 4 columns: Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ, and 12 rows of capacity analysis data.

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

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

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.906
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 56.8
Optimal Cycle: 115 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 4 columns: Volume Module, Count, Date, and 12 rows of traffic volume data for different approaches and times.

Table with 4 columns: Sat/Lane, Adjustment, Lanes, Final Sat., and 12 rows of saturation flow data.

Table with 4 columns: Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ, and 12 rows of capacity analysis data.

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

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

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 160 Critical Vol./Cap. (X): 0.774
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 28.3
Optimal Cycle: 73 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 7:15 - 8:15 AM
Base Vol: 1541 2882 0 0 884 188 179 0 429 0 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

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.89 1.00 1.00 0.89 0.83 0.90 1.00 0.73 1.00 1.00 1.00

Capacity Analysis Module:
Vol/Sat: 0.45 0.57 0.00 0.00 0.17 0.12 0.05 0.00 0.10 0.00 0.00 0.00
Crit Moves: ****
Green Time: 92.8 129 0.0 0.0 35.9 35.9 21.2 0.0 21.2 0.0 0.0 0.0

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

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

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 0.527
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 6.2
Optimal Cycle: 40 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 8 Oct 2009 << 7:45 - 8:45 AM
Base Vol: 0 0 0 22 0 22 68 526 0 0 1341 46
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.89 1.00 0.89 0.93 0.93 1.00 1.00 0.93 0.93

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.03 0.00 0.03 0.04 0.15 0.00 0.00 0.39 0.39
Crit Moves: ****
Green Time: 0.0 0.0 0.0 5.0 0.0 5.0 6.1 69.0 0.0 0.0 62.9 62.9

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

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

Intersection #20 University & Kavanaugh
Cycle (sec): 100 Critical Vol./Cap. (X): 0.542
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.6
Optimal Cycle: 85 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: Table with 12 columns for volume and 12 rows for various metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 12 columns for Sat/Lane and 4 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat and 12 rows for Crit Moves, Green Time, Volume/Cap, etc.

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

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

Intersection #21 University & Bay
Cycle (sec): 100 Critical Vol./Cap. (X): 0.616
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 26.8
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: Table with 12 columns for volume and 12 rows for various metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 12 columns for Sat/Lane and 4 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat and 12 rows for Crit Moves, Green Time, Volume/Cap, etc.

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

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

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap. (X): 0.603
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 19.9
Optimal Cycle: 85 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Protected, Permitted), Rights (Include, Include, Include). Includes Min. Green and Lanes values.

Volume Module:
Base Vol: 47 105 12 16 59 56 18 626 48 88 1246 61
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 47 105 12 16 59 56 18 626 48 88 1246 61
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: 47 105 12 16 59 56 18 626 48 88 1246 61
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 47 105 12 16 59 56 18 626 48 88 1246 61
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 47 105 12 16 59 56 18 626 48 88 1246 61
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: 47 105 12 16 59 56 18 626 48 88 1246 61

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.98 0.98 0.98 0.94 0.94 0.94 0.95 0.94 0.94 0.95 0.94 0.94
Lanes: 0.29 0.64 0.07 0.12 0.45 0.43 1.00 1.86 0.14 1.00 1.91 0.09
Final Sat.: 532 1187 136 217 801 761 1805 3316 254 1805 3417 167

Capacity Analysis Module:
Vol/Sat: 0.09 0.09 0.09 0.07 0.07 0.07 0.01 0.19 0.19 0.05 0.36 0.36
Crit Moves: ****
Green Time: 14.1 14.1 14.1 11.7 11.7 11.7 5.0 49.9 49.9 13.2 58.2 58.2
Volume/Cap: 0.63 0.63 0.63 0.63 0.63 0.63 0.20 0.38 0.38 0.37 0.63 0.63
Uniform Del: 40.5 40.5 40.5 42.0 42.0 42.0 45.6 15.5 15.5 39.6 13.8 13.8
IncrementDel: 4.8 4.8 4.8 5.9 5.9 5.9 1.1 0.1 0.1 1.0 0.6 0.6
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 45.2 45.2 45.2 48.0 48.0 48.0 46.7 15.6 15.6 40.5 14.4 14.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 45.2 45.2 45.2 48.0 48.0 48.0 46.7 15.6 15.6 40.5 14.4 14.4
LOS by Move: D D D D D D D B B D B B
HCM2kAvgQ: 6 6 6 5 5 5 1 7 7 2 14 14

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

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

Intersection #23 University & Bell

Cycle (sec): 100 Critical Vol./Cap. (X): 0.236
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 8.1
Optimal Cycle: 91 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Permitted, Permitted, Permitted), Rights (Include, Include, Include). Includes Min. Green and Lanes values.

Volume Module:
Base Vol: 18 59 9 7 43 11 15 614 24 15 123 24
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 18 59 9 7 43 11 15 614 24 15 123 24
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: 18 59 9 7 43 11 15 614 24 15 123 24
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 18 59 9 7 43 11 15 614 24 15 123 24
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 18 59 9 7 43 11 15 614 24 15 123 24
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: 18 59 9 7 43 11 15 614 24 15 123 24

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.93 0.93 0.95 0.95 0.95 0.65 0.94 0.94 0.38 0.93 0.93
Lanes: 0.21 0.69 0.10 0.11 0.71 0.18 1.00 1.92 0.08 1.00 1.67 0.33
Final Sat.: 371 1216 185 207 1275 326 1241 3453 135 730 2948 575

Capacity Analysis Module:
Vol/Sat: 0.05 0.05 0.05 0.03 0.03 0.03 0.01 0.18 0.18 0.02 0.04 0.04
Crit Moves: ****
Green Time: 20.6 20.6 20.6 20.6 20.6 20.6 75.4 75.4 75.4 75.4 75.4 75.4
Volume/Cap: 0.24 0.24 0.24 0.16 0.16 0.16 0.02 0.24 0.24 0.03 0.06 0.06
Uniform Del: 33.1 33.1 33.1 32.6 32.6 32.6 3.1 3.7 3.7 3.1 3.2 3.2
IncrementDel: 0.3 0.3 0.3 0.2 0.2 0.2 0.0 0.0 0.0 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 33.5 33.5 33.5 32.8 32.8 32.8 3.1 3.7 3.7 3.1 3.2 3.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 33.5 33.5 33.5 32.8 32.8 32.8 3.1 3.7 3.7 3.1 3.2 3.2
LOS by Move: C C C C C C A A A A A A
HCM2kAvgQ: 2 2 2 2 2 2 0 3 3 0 1 1

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

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

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap. (X): 0.890
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 36.5
Optimal Cycle: 103 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module:

Table with 10 columns for volume metrics (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume) and 4 rows for different directions.

Saturation Flow Module:

Table with 12 columns for saturation flow metrics (Sat/Lane, Adjustment, Lanes, Final Sat) and 4 rows for different directions.

Capacity Analysis Module:

Table with 12 columns for capacity analysis metrics (Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ) and 14 rows for different directions.

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

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

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 65 Critical Vol./Cap. (X): 0.358
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 13.5
Optimal Cycle: 57 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module:

Table with 10 columns for volume metrics (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume) and 4 rows for different directions.

Saturation Flow Module:

Table with 12 columns for saturation flow metrics (Sat/Lane, Adjustment, Lanes, Final Sat) and 4 rows for different directions.

Capacity Analysis Module:

Table with 12 columns for capacity analysis metrics (Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ) and 14 rows for different directions.

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

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

Intersection #26 University & SB US 101

Cycle (sec): 85 Critical Vol./Cap. (X): 0.618
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 16.8
Optimal Cycle: 81 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, and Lanes.

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 12 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

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

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

Intersection #27 University Ave. & Woodland

Cycle (sec): 100 Critical Vol./Cap. (X): 0.857
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 36.0
Optimal Cycle: 90 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, and Lanes.

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 12 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

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

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

Intersection #28 Middlefield Rd. & University Ave.
Cycle (sec): 100 Critical Vol./Cap. (X): 0.706
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 33.2
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #29 Bayfront Exp. & Chrysler Dr.
Cycle (sec): 130 Critical Vol./Cap. (X): 0.562
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 7.2
Optimal Cycle: 39 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Includes date and time: 21 Oct 2009 << 7:15 - 8:15 AM. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.570
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 16.8
Optimal Cycle: 40 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Split Phase), Rights (Include, Include, Split Phase)

Table with 4 columns: Volume Module (>> Count Date: 20 Oct 2009 << 7:45 - 8:45 AM) and 3 rows: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume

Table with 4 columns: Saturation Flow Module and 3 rows: Sat/Lane, Adjustment, Lanes, Final Sat.

Table with 4 columns: Capacity Analysis Module and 3 rows: Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ

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

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

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.583
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 21.5
Optimal Cycle: 27 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Split Phase), Rights (Include, Ignore, Split Phase)

Table with 4 columns: Volume Module (>> Count Date: 20 Oct 2009 << 7:45 - 8:45 AM) and 3 rows: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume

Table with 4 columns: Saturation Flow Module and 3 rows: Sat/Lane, Adjustment, Lanes, Final Sat.

Table with 4 columns: Capacity Analysis Module and 3 rows: Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ

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

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

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.452
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 25.6
Optimal Cycle: 22 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 21 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 57 623 49 192 709 68 3 3 3 123 53 241
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 57 623 49 192 709 68 3 3 3 123 53 241
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: 57 623 49 192 709 68 3 3 3 123 53 241
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: 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 Volume: 57 623 49 192 709 68 3 3 3 123 53 241
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 57 623 49 192 709 68 3 3 3 123 53 241
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: 57 623 49 192 709 68 3 3 3 123 53 241

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.93 0.83 0.93 0.93 0.83 0.51 0.91 0.91 0.77 0.77 0.83
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.50 0.50 0.70 0.30 1.00
Final Sat.: 1769 3538 1583 1769 3538 1583 976 861 861 1027 442 1583

Capacity Analysis Module:
Vol/Sat: 0.03 0.18 0.03 0.11 0.20 0.04 0.00 0.00 0.00 0.12 0.12 0.15
Crit Moves: ****
Green Time: 10.8 46.8 46.8 28.8 64.8 64.8 40.4 40.4 40.4 40.4 40.4 40.4
Volume/Cap: 0.36 0.45 0.08 0.45 0.37 0.08 0.01 0.01 0.01 0.36 0.36 0.45
Uniform Del: 51.4 27.1 23.1 38.9 15.9 13.3 26.5 26.5 26.5 30.0 30.0 31.1
IncrementDel: 1.4 0.2 0.1 0.8 0.1 0.0 0.0 0.0 0.0 0.4 0.4 0.6
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 52.7 27.4 23.1 39.6 16.0 13.3 26.5 26.5 26.5 30.4 30.4 31.7
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: 52.7 27.4 23.1 39.6 16.0 13.3 26.5 26.5 26.5 30.4 30.4 31.7
LOS by Move: D C C D B B C C C C C C
HCM2kAvgQ: 2 9 1 6 8 1 0 0 0 5 5 7

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

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

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 100 Critical Vol./Cap. (X): 0.572
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 29.6
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module:
Base Vol: 115 314 8 7 490 355 114 34 45 6 97 5
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 115 314 8 7 490 355 114 34 45 6 97 5
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: 115 314 8 7 490 355 114 34 45 6 97 5
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: 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 Volume: 115 314 8 7 490 355 114 34 45 6 97 5
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 115 314 8 7 490 355 114 34 45 6 97 5
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: 115 314 8 7 490 355 114 34 45 6 97 5

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.93 0.93 0.89 0.89 0.89 0.94 0.94 0.94 0.99 0.99 0.99
Lanes: 0.52 1.44 0.04 0.02 1.15 0.83 1.42 0.25 0.33 0.05 0.90 0.05
Final Sat.: 935 2553 65 28 1945 1409 2526 445 589 105 1691 87

Capacity Analysis Module:
Vol/Sat: 0.12 0.12 0.12 0.25 0.25 0.25 0.05 0.08 0.08 0.06 0.06 0.06
Crit Moves: ****
Green Time: 21.5 21.5 21.5 44.1 44.1 44.1 13.4 13.4 13.4 10.0 10.0 10.0
Volume/Cap: 0.57 0.57 0.57 0.57 0.57 0.57 0.34 0.57 0.57 0.57 0.57 0.57
Uniform Del: 35.1 35.1 35.1 20.9 20.9 20.9 39.3 40.6 40.6 42.9 42.9 42.9
IncrementDel: 1.0 1.0 1.0 0.5 0.5 0.5 0.4 2.3 2.3 4.2 4.2 4.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 36.2 36.2 36.2 21.4 21.4 21.4 39.7 43.0 43.0 47.1 47.1 47.1
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: 36.2 36.2 36.2 21.4 21.4 21.4 39.7 43.0 43.0 47.1 47.1 47.1
LOS by Move: D D D C C C D D D D D D
HCM2kAvgQ: 6 6 6 11 11 11 3 5 5 4 4 4

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

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec): 120 Critical Vol./Cap. (X): 0.495
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 1.1
Optimal Cycle: 90 Level Of Service: A

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

Volume Module:

Table with 12 columns representing different volume and adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 12 columns representing saturation flow and adjustment factors like Sat/Lane, Adjustment, Lanes, etc.

Capacity Analysis Module:

Table with 12 columns representing capacity analysis factors like Vol/Sat, Crit Moves, Green Time, etc.

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

Scenario Report

Scenario: Existing PM
 Command: Existing_2009_PM
 Volume: PM_2009
 Geometry: PM
 Impact Fee: Default Impact Fee
 Trip Generation: Existing PM
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Existing_PM

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh	Del/ LOS	V/ Veh	
# 1 Bayfront Exp. & Marsh Rd.	D	45.4 0.943	D	45.4 0.943	+ 0.000 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	12.9 0.815	B	12.9 0.815	+ 0.000 D/V
# 3 US 101 SB Ramps & Marsh Rd.	B	17.8 0.817	B	17.8 0.817	+ 0.000 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	B	19.4 0.685	B	18.5 0.685	-0.907 D/V
# 5 Bohannon/ Florence & Marsh Rd.	D	51.4 0.691	C	21.3 0.691	-30.036 D/V
# 6 Bay Rd. & Marsh Rd.	B	14.7 0.576	B	14.5 0.576	-0.201 D/V
# 7 Middlefield at Marsh (Town of	C	29.7 0.809	C	28.3 0.809	-1.462 D/V
# 8 Bayfront Exp. & Willow Rd.	D	43.1 0.916	D	43.1 0.916	+ 0.000 D/V
# 9 Hamilton Ave. & Willow Rd.	C	21.8 0.604	C	21.8 0.604	+ 0.000 D/V
# 10 Ivy Dr. & Willow Rd.	B	11.9 0.543	B	11.9 0.543	+ 0.000 D/V
# 11 O'Brien Dr. & Willow Rd.	A	9.7 0.546	A	9.7 0.546	+ 0.000 D/V
# 12 Newbridge St. & Willow Rd.	C	32.7 0.735	C	32.7 0.735	+ 0.000 D/V
# 13 Bay Rd. & Willow Rd.	B	19.5 0.730	B	19.5 0.730	+ 0.000 D/V
# 14 Durham St. & Willow Rd.	D	47.1 0.632	B	14.9 0.638	-32.204 D/V
# 15 Coleman Ave. & Willow Rd.	B	10.7 0.731	A	9.5 0.730	-1.143 D/V
# 16 Gilbert Ave. & Willow Rd.	B	11.7 0.653	A	9.5 0.653	-2.144 D/V
# 17 Middlefield Rd. & Willow Rd.	F	126.0 1.232	F	126.8 1.232	+ 0.822 D/V
# 18 Bayfront Exp. & University Ave	F	146.2 1.280	F	146.2 1.280	+ 0.000 D/V
# 19 O'Brien Dr. & University Ave.	B	12.7 0.667	B	12.7 0.667	+ 0.000 D/V
# 20 University & Kavanaugh	B	15.8 0.642	B	15.8 0.642	+ 0.000 D/V
# 21 University & Bay	C	32.5 0.805	C	32.5 0.805	+ 0.000 D/V
# 22 University & Runnymede	C	22.3 0.675	C	22.3 0.675	+ 0.000 D/V
# 23 University & Bell	A	7.5 0.528	A	7.5 0.528	+ 0.000 D/V
# 24 University & Donohoe	C	34.9 0.843	C	34.9 0.843	+ 0.000 D/V
# 25 NB 101 & Donohoe St	C	21.0 0.466	C	21.0 0.466	+ 0.000 D/V

Intersection		Base		Future		Change	
		Del/ LOS	V/ Veh	Del/ LOS	V/ Veh		
# 26 University & SB US 101	C	21.3	0.509	21.3	0.509	+ 0.000	D/V
# 27 University Ave. & Woodland	D	44.4	0.860	44.4	0.860	+ 0.000	D/V
# 28 Middlefield Rd. & University A	C	32.6	0.537	32.6	0.537	+ 0.000	D/V
# 29 Bayfront Exp. & Chrysler Dr.	B	18.4	0.681	18.4	0.681	+ 0.000	D/V
# 30 Bayfront Exp. & Chilco St.	B	13.7	0.584	13.7	0.584	+ 0.000	D/V
# 31 Middlefield Rd. & Ravenswood A	C	25.5	0.717	25.1	0.717	-0.374	D/V
# 32 Middlefield Rd. & Ringwood Ave	C	27.9	0.605	28.8	0.605	+ 0.857	D/V
# 33 Middlefield Rd and Lytton Ave	D	38.0	0.704	38.0	0.704	+ 0.000	D/V
# 34 Bayfront Expy. and Facebook We	A	1.3	0.505	1.3	0.505	+ 0.000	D/V

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

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 140 Critical Vol./Cap. (X): 0.943
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 45.4
Optimal Cycle: 165 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Include			Ovl			Ovl			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	3	0	0	1	0	1	0	1	0	0	2	0

Volume Module: >> Count Date: 22 Oct 2009 << 4:45 - 5:45 PM

Base Vol:	1184	49	7	0	346	186	139	40	1952	31	73	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1184	49	7	0	346	186	139	40	1952	31	73	11
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:	1184	49	7	0	346	186	139	40	1952	31	73	11
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:	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 Volume:	1184	49	7	0	346	186	139	40	1952	31	73	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1184	49	7	0	346	186	139	40	1952	31	73	11
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:	1184	49	7	0	346	186	139	40	1952	31	73	11

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.96	0.96	0.95	0.93	0.83	0.94	0.94	0.73	0.95	0.95	0.95
Lanes:	3.00	0.88	0.12	0.00	2.00	1.00	0.78	0.22	2.00	0.27	0.63	0.10
Final Sat.:	5147	1598	228	0	3538	1583	1392	401	2786	489	1151	174

Capacity Analysis Module:

Vol/Sat:	0.23	0.03	0.03	0.00	0.10	0.12	0.10	0.10	0.70	0.06	0.06	0.06
Crit Moves:	****			****			****			****		
Green Time:	34.2	34.2	34.2	0.0	14.5	84.4	69.9	69.9	104.1	9.4	9.4	9.4
Volume/Cap:	0.94	0.13	0.13	0.00	0.94	0.19	0.20	0.20	0.94	0.94	0.94	0.94
Uniform Del:	52.0	41.3	41.3	0.0	62.3	12.5	19.5	19.5	15.4	65.0	65.0	65.0
IncrementDel:	13.9	0.1	0.1	0.0	32.5	0.1	0.1	0.1	9.5	63.6	63.6	63.6
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	65.9	41.4	41.4	0.0	94.8	12.6	19.6	19.6	24.9	128.7	129	128.7
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:	65.9	41.4	41.4	0.0	94.8	12.6	19.6	19.6	24.9	128.7	129	128.7
LOS by Move:	E	D	D	A	F	B	B	B	C	F	F	F
HCM2kAvgQ:	19	2	2	0	11	3	4	4	42	8	8	8

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap. (X): 0.815
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 12.9
Optimal Cycle: 58 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Permitted Permitted
Rights: Include Include Ignore Ignore
Min. Green: 5 0 5 0 0 0 0 5 0 0 5 0
Lanes: 2 0 0 0 1 0 0 0 0 0 0 0 2 0 1 0 0 2 0 1

Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM
Base Vol: 493 0 213 0 0 0 0 2063 507 0 682 791
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 493 0 213 0 0 0 0 2063 507 0 682 791
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: 493 0 213 0 0 0 0 2063 507 0 682 791
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Volume: 493 0 213 0 0 0 0 2063 0 0 682 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 493 0 213 0 0 0 0 2063 0 0 682 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 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
FinalVolume: 493 0 213 0 0 0 0 2063 0 0 682 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.00 0.83 1.00 1.00 1.00 1.00 0.93 1.00 1.00 0.93 1.00
Lanes: 2.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 0.00 2.00 1.00
Final Sat.: 3432 0 1583 0 0 0 0 3538 1900 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.14 0.00 0.13 0.00 0.00 0.00 0.00 0.58 0.00 0.00 0.19 0.00
Crit Moves: ****
Green Time: 11.5 0.0 11.5 0.0 0.0 0.0 0.0 46.5 0.0 0.0 46.5 0.0
Volume/Cap: 0.81 0.00 0.76 0.00 0.00 0.00 0.00 0.81 0.00 0.00 0.27 0.00
Uniform Del: 25.7 0.0 25.5 0.0 0.0 0.0 0.0 6.3 0.0 0.0 3.2 0.0
IncrementDel: 8.3 0.0 11.7 0.0 0.0 0.0 0.0 2.1 0.0 0.0 0.1 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 34.1 0.0 37.2 0.0 0.0 0.0 0.0 8.4 0.0 0.0 3.3 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 34.1 0.0 37.2 0.0 0.0 0.0 0.0 8.4 0.0 0.0 3.3 0.0
LOS by Move: C A D A A A A A A A A
HCM2kAvgQ: 7 0 6 0 0 0 0 17 0 0 2 0

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap. (X): 0.817
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 17.8
Optimal Cycle: 58 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Permitted Permitted
Rights: Include Include Ignore Ignore
Min. Green: 0 0 0 5 0 5 0 5 0 0 5 0
Lanes: 0 0 0 0 0 2 0 0 0 1 0 0 2 0 1 0 0 2 0 1

Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM
Base Vol: 0 0 0 1355 0 453 0 1181 651 0 940 282
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 1355 0 453 0 1181 651 0 940 282
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 0 0 1355 0 453 0 1181 651 0 940 282
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Volume: 0 0 0 1355 0 453 0 1181 0 0 940 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 1355 0 453 0 1181 0 0 940 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 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
FinalVolume: 0 0 0 1355 0 453 0 1181 0 0 940 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.90 1.00 0.83 1.00 0.93 1.00 1.00 0.93 1.00
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 0.00 2.00 1.00 0.00 2.00 1.00
Final Sat.: 0 0 0 3432 0 1583 0 3538 1900 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.39 0.00 0.29 0.00 0.33 0.00 0.00 0.27 0.00
Crit Moves: ****
Green Time: 0.0 0.0 0.0 31.4 0.0 31.4 0.0 26.6 0.0 0.0 26.6 0.0
Volume/Cap: 0.00 0.00 0.00 0.82 0.00 0.59 0.00 0.82 0.00 0.00 0.65 0.00
Uniform Del: 0.0 0.0 0.0 14.3 0.0 12.1 0.0 17.1 0.0 0.0 15.5 0.0
IncrementDel: 0.0 0.0 0.0 3.3 0.0 1.2 0.0 3.7 0.0 0.0 1.1 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 0.0 0.0 0.0 17.6 0.0 13.4 0.0 20.8 0.0 0.0 16.5 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 17.6 0.0 13.4 0.0 20.8 0.0 0.0 16.5 0.0
LOS by Move: A A A B A B A C A B A
HCM2kAvgQ: 0 0 0 15 0 7 0 14 0 0 9 0

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.685
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 18.5
Optimal Cycle: 33 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Split Phase, Protected), Rights (Include), Min. Green (4-6), Lanes (0-2)

Volume Module: >> Count Date: 4 Nov 2009 << 4:45 - 5:45 PM
Base Vol: 28 15 267 254 9 2 42 1314 17 78 1109 214
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 0.73 0.93 0.93 0.83 0.93 0.89 0.89 0.90 0.91 0.91

Capacity Analysis Module:
Vol/Sat: 0.02 0.02 0.10 0.15 0.15 0.00 0.02 0.26 0.26 0.02 0.38 0.38
Crit Moves: ****
Green Time: 11.0 11.0 11.0 17.0 17.0 17.0 4.0 40.3 40.3 7.7 44.0 44.0

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.691
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 21.3
Optimal Cycle: 34 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Split Phase, Protected), Rights (Include), Min. Green (4-6), Lanes (1-2)

Volume Module: >> Count Date: 7 Oct 2009 << 4:30 - 5:30 pm
Base Vol: 95 32 58 428 30 128 239 885 55 26 833 316
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.88 0.88 0.94 0.94 0.83 0.93 0.92 0.92 0.93 0.89 0.89

Capacity Analysis Module:
Vol/Sat: 0.05 0.05 0.05 0.13 0.13 0.08 0.14 0.27 0.27 0.01 0.34 0.34
Crit Moves: ****
Green Time: 6.2 6.2 6.2 14.9 14.9 14.9 15.6 46.2 46.2 8.6 39.2 39.2

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

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

Intersection #6 Bay Rd. & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.576
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 14.5
Optimal Cycle: 26 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 57 8 180 55 31 3 5 819 90 200 891 47
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 57 8 180 55 31 3 5 819 90 200 891 47
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: 57 8 180 55 31 3 5 819 90 200 891 47
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 57 8 180 55 31 3 5 819 90 200 891 47
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 57 8 180 55 31 3 5 819 90 200 891 47
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: 57 8 180 55 31 3 5 819 90 200 891 47

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.81 0.81 0.81 0.72 0.72 0.72 0.87 0.87 0.87 0.93 0.92 0.92
Lanes: 0.23 0.03 0.74 0.62 0.35 0.03 0.01 1.79 0.20 1.00 1.90 0.10
Final Sat.: 359 50 1133 843 475 46 18 2973 327 1769 3337 176

Capacity Analysis Module:
Vol/Sat: 0.16 0.16 0.16 0.07 0.07 0.07 0.28 0.28 0.28 0.11 0.27 0.27
Crit Moves: ****
Green Time: 22.1 22.1 22.1 22.1 22.1 22.1 38.2 38.2 38.2 15.7 53.9 53.9
Volume/Cap: 0.58 0.58 0.58 0.24 0.24 0.24 0.58 0.58 0.58 0.58 0.40 0.40
Uniform Del: 24.9 24.9 24.9 22.4 22.4 22.4 15.0 15.0 15.0 29.1 5.8 5.8
IncrementDel: 1.9 1.9 1.9 0.3 0.3 0.3 0.5 0.5 0.5 2.4 0.1 0.1
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 26.9 26.9 26.9 22.8 22.8 22.8 15.6 15.6 15.6 31.5 5.9 5.9
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: 26.9 26.9 26.9 22.8 22.8 22.8 15.6 15.6 15.6 31.5 5.9 5.9
LOS by Move: C C C C C C B B B C A A
HCM2kAvgQ: 6 6 6 2 2 2 8 8 8 4 5 5

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)

Cycle (sec): 110 Critical Vol./Cap. (X): 0.809
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 28.3
Optimal Cycle: 76 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 18 Nov 2009 << 5:00 - 6:00 p.m.
Base Vol: 0 426 548 408 269 0 0 0 0 515 0 447
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 426 548 408 269 0 0 0 0 515 0 447
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: 0 426 548 408 269 0 0 0 0 515 0 447
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: 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 Volume: 0 426 548 408 269 0 0 0 0 515 0 447
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 426 548 408 269 0 0 0 0 515 0 447
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: 0 426 548 408 269 0 0 0 0 515 0 447

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

Capacity Analysis Module:
Vol/Sat: 0.00 0.22 0.34 0.23 0.14 0.00 0.00 0.00 0.00 0.29 0.00 0.28
Crit Moves: ****
Green Time: 0.0 30.5 69.3 30.7 61.2 0.0 0.0 0.0 0.0 38.8 0.0 69.5
Volume/Cap: 0.00 0.81 0.54 0.81 0.25 0.00 0.00 0.00 0.00 0.81 0.00 0.44
Uniform Del: 0.0 37.0 11.4 36.9 12.6 0.0 0.0 0.0 0.0 32.3 0.0 10.3
IncrementDel: 0.0 9.1 0.6 9.5 0.1 0.0 0.0 0.0 0.0 7.6 0.0 0.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Delay/Veh: 0.0 46.2 12.0 46.4 12.7 0.0 0.0 0.0 0.0 39.9 0.0 10.6
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 46.2 12.0 46.4 12.7 0.0 0.0 0.0 0.0 39.9 0.0 10.6
LOS by Move: A D B D B A A A A D A B
HCM2kAvgQ: 0 14 10 15 5 0 0 0 0 16 0 8

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.916
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 43.1
Optimal Cycle: 136 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 4:45 - 5:45 PM
Base Vol: 362 664 1 0 2199 108 36 13 1424 44 105 8
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 362 664 1 0 2199 108 36 13 1424 44 105 8
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: 362 664 1 0 2199 108 36 13 1424 44 105 8
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: 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 Volume: 362 664 1 0 2199 108 36 13 1424 44 105 8
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 362 664 1 0 2199 108 36 13 1424 44 105 8
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: 362 664 1 0 2199 108 36 13 1424 44 105 8

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.03 0.83 0.97 1.03 0.83 0.90 0.90 0.88 0.93 0.93 0.83
Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 2.00 1.00 2.00 1.00 2.00 1.00
Final Sat.: 3432 5846 1583 3686 5846 1583 3414 1707 3343 1769 3538 1583

Capacity Analysis Module:
Vol/Sat: 0.11 0.11 0.00 0.00 0.38 0.07 0.01 0.01 0.43 0.02 0.03 0.01
Crit Moves: ****
Green Time: 14.9 67.8 72.8 0.0 53.0 53.0 45.2 45.2 60.0 5.0 5.0 5.0
Volume/Cap: 0.92 0.22 0.00 0.00 0.92 0.17 0.03 0.02 0.92 0.65 0.77 0.13
Uniform Del: 57.0 16.8 12.6 0.0 36.6 24.5 28.0 27.9 32.8 61.6 61.9 60.4
IncrementDel: 27.0 0.0 0.0 0.0 6.6 0.1 0.0 0.0 9.6 19.6 23.3 1.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 84.1 16.8 12.6 0.0 43.2 24.6 28.0 27.9 42.4 81.2 85.3 61.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 84.1 16.8 12.6 0.0 43.2 24.6 28.0 27.9 42.4 81.2 85.3 61.4
LOS by Move: F B B A D C C C D F F E
HCM2kAvgQ: 11 5 0 0 33 3 0 0 32 3 4 0

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.604
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 21.8
Optimal Cycle: 47 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 7 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 129 6 49 73 5 73 130 1351 5 20 553 67
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 129 6 49 73 5 73 130 1351 5 20 553 67
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: 129 6 49 73 5 73 130 1351 5 20 553 67
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 129 6 49 73 5 73 130 1351 5 20 553 67
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 129 6 49 73 5 73 130 1351 5 20 553 67
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 129 6 49 73 5 73 130 1351 5 20 553 67

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.63 0.63 0.63 0.73 0.73 0.73 0.93 0.93 0.93 0.93 0.92 0.92
Lanes: 0.70 0.03 0.27 0.49 0.03 0.48 1.00 1.99 0.01 1.00 1.78 0.22
Final Sat.: 838 39 318 673 46 673 1769 3521 13 1769 3105 376

Capacity Analysis Module:
Vol/Sat: 0.15 0.15 0.15 0.11 0.11 0.11 0.07 0.38 0.38 0.01 0.18 0.18
Crit Moves: ****
Green Time: 29.8 29.8 29.8 29.8 29.8 29.8 23.1 74.2 74.2 5.0 56.1 56.1
Volume/Cap: 0.62 0.62 0.62 0.44 0.44 0.44 0.38 0.62 0.62 0.27 0.38 0.38
Uniform Del: 40.1 40.1 40.1 38.0 38.0 38.0 42.2 14.2 14.2 55.7 20.7 20.7
IncrementDel: 4.0 4.0 4.0 0.9 0.9 0.9 0.7 0.6 0.6 2.0 0.1 0.1
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 44.1 44.1 44.1 38.9 38.9 38.9 42.9 14.7 14.7 57.7 20.9 20.9
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: 44.1 44.1 44.1 38.9 38.9 38.9 42.9 14.7 14.7 57.7 20.9 20.9
LOS by Move: D D D D D D D B B E C C
HCM2kAvgQ: 7 7 7 5 5 5 4 16 16 1 7 7

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

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

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.543
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 11.9
Optimal Cycle: 42 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include), and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 performance metrics (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.546
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 9.7
Optimal Cycle: 42 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include), and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 performance metrics (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.735
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 32.7
Optimal Cycle: 73 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Ovl, Include), Min. Green (5, 5, 5, 5), Lanes (2, 0, 1, 0, 1, 1, 0, 2, 1, 0, 1, 0, 1, 1, 0)

Volume Module: >> Count Date: 7 Oct 2009 << 4:45 - 5:45 PM
Base Vol: 248 170 55 38 166 219 323 1436 339 102 975 34
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 248 170 55 38 166 219 323 1436 339 102 975 34
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: 248 170 55 38 166 219 323 1436 339 102 975 34
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 248 170 55 38 166 219 323 1436 339 102 975 34
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 248 170 55 38 166 219 323 1436 339 102 975 34
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: 248 170 55 38 166 219 323 1436 339 102 975 34

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.98 0.83 0.93 0.98 0.83 0.93 0.87 0.87 0.93 0.93 0.93
Lanes: 2.00 1.00 1.00 1.00 1.00 1.00 1.00 2.43 0.57 1.00 1.93 0.07
Final Sat.: 3432 1862 1583 1769 1862 1583 1769 3993 943 1769 3401 119

Capacity Analysis Module:
Vol/Sat: 0.07 0.09 0.03 0.02 0.09 0.14 0.18 0.36 0.36 0.06 0.29 0.29
Crit Moves: ****
Green Time: 14.9 14.9 25.5 14.5 14.5 44.3 29.8 66.0 66.0 10.6 46.8 46.8
Volume/Cap: 0.58 0.74 0.16 0.18 0.74 0.37 0.74 0.65 0.65 0.65 0.74 0.74
Uniform Del: 49.6 50.7 38.6 47.4 50.9 27.7 41.5 19.0 19.0 52.9 31.3 31.3
IncrementDel: 2.0 11.6 0.2 0.4 11.9 0.4 6.4 0.6 0.6 9.6 2.1 2.1
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 51.7 62.3 38.8 47.8 62.8 28.1 47.9 19.6 19.6 62.5 33.4 33.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 51.7 62.3 38.8 47.8 62.8 28.1 47.9 19.6 19.6 62.5 33.4 33.4
LOS by Move: D E D D E C D B B E C C
HCM2kAvgQ: 5 8 2 1 7 6 12 17 17 4 17 17

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.730
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 19.5
Optimal Cycle: 60 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include), Min. Green (0, 0, 0, 5, 5, 5, 5, 0, 0, 5, 5), Lanes (0, 0, 0, 0, 0, 1, 0, 0, 0, 1, 1, 0, 2, 0, 0, 0, 0, 2, 0, 1)

Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 0 0 0 416 0 54 40 1436 0 0 1061 255
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 416 0 54 40 1436 0 0 1061 255
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 0 0 416 0 54 40 1436 0 0 1061 255
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: 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 Volume: 0 0 0 416 0 54 40 1436 0 0 1061 255
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 416 0 54 40 1436 0 0 1061 255
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 0 0 416 0 54 40 1436 0 0 1061 255

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.93 1.00 0.83 0.93 0.93 1.00 1.00 0.93 0.83
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 0 0 0 1769 0 1583 1769 3538 0 0 3538 1583

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.24 0.00 0.03 0.02 0.41 0.00 0.00 0.30 0.16
Crit Moves: ****
Green Time: 0.0 0.0 0.0 29.0 0.0 29.0 7.8 50.0 0.0 0.0 42.2 42.2
Volume/Cap: 0.00 0.00 0.00 0.73 0.00 0.11 0.26 0.73 0.00 0.00 0.64 0.34
Uniform Del: 0.0 0.0 0.0 27.0 0.0 21.4 38.4 14.9 0.0 0.0 18.1 15.1
IncrementDel: 0.0 0.0 0.0 4.8 0.0 0.1 0.9 1.4 0.0 0.0 0.8 0.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Delay/Veh: 0.0 0.0 0.0 31.8 0.0 21.5 39.3 16.4 0.0 0.0 19.0 15.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 31.8 0.0 21.5 39.3 16.4 0.0 0.0 19.0 15.4
LOS by Move: A A A C A C D B A A B B
HCM2kAvgQ: 0 0 0 12 0 1 1 17 0 0 12 5

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

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

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.638
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 14.9
Optimal Cycle: 39 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.730
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 9.5
Optimal Cycle: 50 Level Of Service: A

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.653
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 9.5
Optimal Cycle: 40 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module table with columns: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. Values range from 1900 to 1378.

Capacity Analysis Module table with columns: Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.232
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 126.8
Optimal Cycle: 200 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module table with columns: >> Count Date: 30 Sep 2009 << 4:45 - 5:45 PM. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. Values range from 1900 to 1769.

Capacity Analysis Module table with columns: Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #18 Bayfront Exp. & University Ave.
Cycle (sec): 150 Critical Vol./Cap. (X): 1.280
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 146.2
Optimal Cycle: 200 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM. Table with 12 columns for volume counts and 12 columns for adjustment factors.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #19 O'Brien Dr. & University Ave.
Cycle (sec): 85 Critical Vol./Cap. (X): 0.667
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 12.7
Optimal Cycle: 51 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM. Table with 12 columns for volume counts and 12 columns for adjustment factors.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap. (X): 0.642
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 15.8
Optimal Cycle: 85 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module:

Table with 12 columns for volume metrics (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume) and 4 rows for each approach.

Saturation Flow Module:

Table with 12 columns for saturation flow metrics (Sat/Lane, Adjustment, Lanes, Final Sat.) and 4 rows for each approach.

Capacity Analysis Module:

Table with 12 columns for capacity analysis metrics (Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ) and 4 rows for each approach.

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

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

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap. (X): 0.805
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 32.5
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module:

Table with 12 columns for volume metrics (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume) and 4 rows for each approach.

Saturation Flow Module:

Table with 12 columns for saturation flow metrics (Sat/Lane, Adjustment, Lanes, Final Sat.) and 4 rows for each approach.

Capacity Analysis Module:

Table with 12 columns for capacity analysis metrics (Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ) and 4 rows for each approach.

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

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

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap. (X): 0.675
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 22.3
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: Table with 12 columns for traffic flows and 12 rows for various metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 12 columns for traffic flows and 4 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns for traffic flows and 14 rows for Vol/Sat, Crit Moves, Green Time, etc.

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

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

Intersection #23 University & Bell

Cycle (sec): 90 Critical Vol./Cap. (X): 0.528
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 7.5
Optimal Cycle: 86 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: Table with 12 columns for traffic flows and 12 rows for various metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 12 columns for traffic flows and 4 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns for traffic flows and 14 rows for Vol/Sat, Crit Moves, Green Time, etc.

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

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

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap. (X): 0.843
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 34.9
Optimal Cycle: 86 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module:

Table with 11 columns for traffic volumes and 11 rows for various metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module:

Table with 11 columns for saturation flow and 4 rows: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:

Table with 11 columns for capacity analysis and 15 rows: Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 90 Critical Vol./Cap. (X): 0.466
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 21.0
Optimal Cycle: 82 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module:

Table with 11 columns for traffic volumes and 11 rows for various metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module:

Table with 11 columns for saturation flow and 4 rows: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:

Table with 11 columns for capacity analysis and 15 rows: Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #26 University & SB US 101

Cycle (sec): 90 Critical Vol./Cap. (X): 0.509
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 21.3
Optimal Cycle: 86 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Volume Module:
Base Vol: 305 1 439 0 0 0 0 1391 388 487 927 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: 305 1 439 0 0 0 0 1391 388 487 927 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: 305 1 439 0 0 0 0 1391 388 487 927 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: 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 Volume: 305 1 439 0 0 0 0 1391 388 487 927 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 305 1 439 0 0 0 0 1391 388 487 927 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: 305 1 439 0 0 0 0 1391 388 487 927 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.86 0.86 0.86 1.00 1.00 1.00 1.00 0.95 0.75 0.92 0.95 1.00
Lanes: 1.41 0.01 1.58 0.00 0.00 0.00 0.00 2.00 2.00 2.00 2.00 0.00
Final Sat.: 2292 4 2585 0 0 0 0 3610 2842 3502 3610 0

Capacity Analysis Module:
Vol/Sat: 0.13 0.23 0.17 0.00 0.00 0.00 0.00 0.39 0.14 0.14 0.26 0.00
Crit Moves: ****
Green Time: 22.0 22.0 22.0 0.0 0.0 0.0 0.0 41.6 41.6 22.4 64.0 0.0
Volume/Cap: 0.54 0.94 0.69 0.00 0.00 0.00 0.00 0.83 0.30 0.56 0.36 0.00
Uniform Del: 29.6 33.3 30.9 0.0 0.0 0.0 0.0 21.2 15.1 29.5 5.1 0.0
IncrementDel: 0.5 18.5 2.0 0.0 0.0 0.0 0.0 3.8 0.1 0.8 0.1 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00 0.00
Delay/Veh: 30.1 51.9 33.0 0.0 0.0 0.0 0.0 25.0 15.2 30.3 5.1 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 30.1 51.9 33.0 0.0 0.0 0.0 0.0 25.0 15.2 30.3 5.1 0.0
LOS by Move: C D C A A A A C B C A A
HCM2kAvgQ: 6 15 8 0 0 0 0 17 4 7 5 0

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

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

Intersection #27 University Ave. & Woodland

Cycle (sec): 110 Critical Vol./Cap. (X): 0.860
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 44.4
Optimal Cycle: 95 Level Of Service: D

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Volume Module:
Base Vol: 16 87 274 612 119 34 28 809 9 274 800 327
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 16 87 274 612 119 34 28 809 9 274 800 327
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: 16 87 274 612 119 34 28 809 9 274 800 327
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: 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 Volume: 16 87 274 612 119 34 28 809 9 274 800 327
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 16 87 274 612 119 34 28 809 9 274 800 327
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: 16 87 274 612 119 34 28 809 9 274 800 327

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.90 0.90 0.92 0.97 0.97 0.95 0.95 0.95 0.95 0.95 0.85
Lanes: 0.04 0.23 0.73 2.00 0.78 0.22 1.00 1.98 0.02 1.00 2.00 1.00
Final Sat.: 73 395 1243 3502 1429 408 1805 3563 40 1805 3610 1615

Capacity Analysis Module:
Vol/Sat: 0.22 0.22 0.22 0.17 0.08 0.08 0.02 0.23 0.23 0.15 0.22 0.20
Crit Moves: ****
Green Time: 36.7 28.2 28.2 22.4 13.9 13.9 8.2 29.0 29.0 19.4 40.2 40.2
Volume/Cap: 0.66 0.86 0.86 0.86 0.66 0.66 0.21 0.86 0.86 0.86 0.61 0.55
Uniform Del: 31.3 39.0 39.0 42.3 45.8 45.8 47.8 38.5 38.5 44.0 28.4 27.8
IncrementDel: 2.9 15.7 15.7 10.4 6.9 6.9 0.8 8.0 8.0 20.4 0.8 1.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 34.2 54.7 54.7 52.7 52.8 52.8 48.6 46.6 46.6 64.3 29.3 28.9
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: 34.2 54.7 54.7 52.7 52.8 52.8 48.6 46.6 46.6 64.3 29.3 28.9
LOS by Move: C D D D D D D D D E C C
HCM2kAvgQ: 12 15 15 13 6 6 1 17 17 10 11 9

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

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

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.537
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 32.6
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: Table with 12 columns for volume and 12 columns for growth/initial/added/passers. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Table with 12 columns for Sat/Lane and 12 columns for Adjustment. Rows include Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat and 12 columns for Crit Moves. Rows include Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.681
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 18.4
Optimal Cycle: 51 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:5:00 - 6:00 AM
Table with 12 columns for volume and 12 columns for growth/initial/added/passers. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Table with 12 columns for Sat/Lane and 12 columns for Adjustment. Rows include Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat and 12 columns for Crit Moves. Rows include Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.584
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 13.7
Optimal Cycle: 41 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 20 Oct 2009 << 4:45 - 5:45 PM
Base Vol: 14 783 0 0 2126 160 190 0 186 0 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

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.89 1.00 1.00 0.89 0.83 0.93 1.00 0.83 1.00 1.00 1.00

Capacity Analysis Module:
Vol/Sat: 0.01 0.15 0.00 0.00 0.42 0.10 0.11 0.00 0.12 0.00 0.00 0.00
Crit Moves: ****
Green Time: 5.0 95.6 0.0 0.0 90.6 25.4 0.0 25.4 0.0 0.0 0.0 0.0

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

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

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.717
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 25.1
Optimal Cycle: 38 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 20 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 487 566 0 0 357 92 257 0 705 0 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

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.98 1.00 1.00 0.95 0.95 0.93 1.00 0.83 1.00 1.00 1.00

Capacity Analysis Module:
Vol/Sat: 0.28 0.30 0.00 0.00 0.25 0.25 0.15 0.00 0.45 0.00 0.00 0.00
Crit Moves: ****
Green Time: 46.0 87.5 0.0 0.0 41.5 41.5 28.5 0.0 74.5 0.0 0.0 0.0

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

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

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.605
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 28.8
Optimal Cycle: 28 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Permitted), Rights (Include, Include, Include).

Volume Module: >> Count Date: 21 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 49 761 127 356 628 36 75 76 62 73 8 266
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 49 761 127 356 628 36 75 76 62 73 8 266
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: 49 761 127 356 628 36 75 76 62 73 8 266
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: 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 Volume: 49 761 127 356 628 36 75 76 62 73 8 266
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 49 761 127 356 628 36 75 76 62 73 8 266
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: 49 761 127 356 628 36 75 76 62 73 8 266

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.93 0.83 0.93 0.93 0.83 0.63 0.91 0.91 0.66 0.66 0.83
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.55 0.45 0.90 0.10 1.00
Final Sat.: 1769 3538 1583 1769 3538 1583 1201 957 781 1128 124 1583

Capacity Analysis Module:
Vol/Sat: 0.03 0.22 0.08 0.20 0.18 0.02 0.06 0.08 0.08 0.06 0.06 0.17
Crit Moves: ****
Green Time: 13.1 42.7 42.7 39.9 69.6 69.6 33.4 33.4 33.4 33.4 33.4 33.4
Volume/Cap: 0.25 0.60 0.23 0.60 0.31 0.04 0.22 0.29 0.29 0.23 0.23 0.60
Uniform Del: 49.0 31.7 27.1 33.4 12.9 10.8 33.4 34.0 34.0 33.4 33.4 37.6
IncrementDel: 0.7 0.8 0.2 1.8 0.1 0.0 0.3 0.3 0.3 0.3 0.3 2.4
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 49.7 32.6 27.3 35.2 13.0 10.9 33.7 34.3 34.3 33.8 33.8 40.0
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: 49.7 32.6 27.3 35.2 13.0 10.9 33.7 34.3 34.3 33.8 33.8 40.0
LOS by Move: D C C D B B C C C C C D
HCM2kAvgQ: 2 12 3 10 6 1 2 4 4 2 2 9

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

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

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 110 Critical Vol./Cap. (X): 0.704
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 38.0
Optimal Cycle: 85 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Split Phase, Split Phase, Split Phase), Rights (Include, Include, Include).

Volume Module:
Base Vol: 89 457 24 24 508 163 419 135 78 7 55 12
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 89 457 24 24 508 163 419 135 78 7 55 12
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: 89 457 24 24 508 163 419 135 78 7 55 12
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: 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 Volume: 89 457 24 24 508 163 419 135 78 7 55 12
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 89 457 24 24 508 163 419 135 78 7 55 12
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: 89 457 24 24 508 163 419 135 78 7 55 12

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.94 0.94 0.94 0.91 0.91 0.91 0.95 0.95 0.95 0.97 0.97 0.97
Lanes: 0.31 1.61 0.08 0.07 1.46 0.47 1.50 0.32 0.18 0.09 0.75 0.16
Final Sat.: 556 2854 150 120 2541 815 2702 577 333 175 1374 300

Capacity Analysis Module:
Vol/Sat: 0.16 0.16 0.16 0.20 0.20 0.20 0.16 0.23 0.23 0.04 0.04 0.04
Crit Moves: ****
Green Time: 25.0 25.0 25.0 31.2 31.2 31.2 36.5 36.5 36.5 6.2 6.2 6.2
Volume/Cap: 0.70 0.70 0.70 0.70 0.70 0.70 0.47 0.70 0.70 0.70 0.70 0.70
Uniform Del: 39.1 39.1 39.1 35.3 35.3 35.3 29.0 32.0 32.0 51.0 51.0 51.0
IncrementDel: 2.8 2.8 2.8 2.3 2.3 2.3 0.3 2.6 2.6 19.5 19.5 19.5
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 41.9 41.9 41.9 37.6 37.6 37.6 29.3 34.6 34.6 70.4 70.4 70.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 41.9 41.9 41.9 37.6 37.6 37.6 29.3 34.6 34.6 70.4 70.4 70.4
LOS by Move: D D D D C C C E E E
HCM2kAvgQ: 9 9 9 12 12 12 8 13 13 4 4 4

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

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec): 100 Critical Vol./Cap. (X): 0.505
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 1.3
Optimal Cycle: 90 Level Of Service: A

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), Min. Green (10, 10, 10), Lanes (1 0 3 0 0, 0 0 3 0 1, 2 0 0 0 1, 0 0 0 0 0)

Volume Module:

Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume

Saturation Flow Module:

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

Capacity Analysis Module:

Table with columns: Vol/Sat, Crit Moves, Green Time, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ

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

Scenario Report

Scenario: Near Term 2015 AM

Command: Near Term I No Project AM "B"
 Volume: Near Term I No Project AM "B"
 Geometry: Near Term I No Project AM "B"
 Impact Fee: Default Impact Fee
 Trip Generation: Near Term I No Project AM "B"
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Near Term I No Project AM "B"

Impact Analysis Report
Level Of Service

Intersection		Base		Future		Change in	
		Del/ LOS	V/ Veh	Del/ LOS	V/ Veh		
# 1	Bayfront Exp. & Marsh Rd.	C	22.3 0.768	C	22.5 0.804	+ 0.145	D/V
# 2	US 101 NB Ramps & Marsh Rd.	B	16.0 0.638	C	33.3 0.997	+17.311	D/V
# 3	US 101 SB Ramps & Marsh Rd.	C	21.3 0.861	C	23.1 0.883	+ 1.775	D/V
# 4	Scott Dr/Rolison at Marsh Rd.	C	27.4 0.822	C	24.4 0.843	-2.972	D/V
# 5	Bohannon/ Florence & Marsh Rd.	B	19.5 0.565	B	15.0 0.584	-4.586	D/V
# 6	Bay Rd. & Marsh Rd.	B	16.5 0.586	B	16.2 0.646	-0.306	D/V
# 7	Middlefield at Marsh (Town of	C	26.2 0.610	C	24.8 0.691	-1.420	D/V
# 8	Bayfront Exp. & Willow Rd.	C	27.5 0.610	C	34.4 0.708	+ 6.851	D/V
# 9	Hamilton Ave. & Willow Rd.	C	22.9 0.559	C	21.1 0.577	-1.786	D/V
# 10	Ivy Dr. & Willow Rd.	B	18.0 0.517	C	20.7 0.581	+ 2.709	D/V
# 11	O'Brien Dr. & Willow Rd.	B	15.0 0.464	B	14.1 0.512	-0.910	D/V
# 12	Newbridge St. & Willow Rd.	D	48.5 0.903	D	49.0 0.929	+ 0.500	D/V
# 13	Bay Rd. & Willow Rd.	C	20.0 0.694	B	20.0 0.744	-0.069	D/V
# 14	Durham St. & Willow Rd.	C	24.8 0.714	B	12.5 0.740	-12.311	D/V
# 15	Coleman Ave. & Willow Rd.	B	13.0 0.715	B	14.1 0.787	+ 1.087	D/V
# 16	Gilbert Ave. & Willow Rd.	B	14.0 0.663	B	14.9 0.759	+ 0.877	D/V
# 17	Middlefield Rd. & Willow Rd.	F	101.2 0.947	F	89.2 1.088	-11.990	D/V
# 18	Bayfront Exp. & University Ave	C	29.2 0.805	C	30.2 0.814	+ 0.980	D/V
# 19	O'Brien Dr. & University Ave.	A	6.4 0.548	A	6.3 0.554	-0.060	D/V
# 20	University & Kavanaugh	B	13.8 0.563	B	13.7 0.565	-0.157	D/V
# 21	University & Bay	C	27.7 0.661	C	27.4 0.662	-0.274	D/V
# 22	University & Runnymede	C	20.3 0.627	C	20.2 0.628	-0.142	D/V
# 23	University & Bell	A	7.6 0.246	A	7.4 0.264	-0.231	D/V
# 24	University & Donohoe	D	39.3 0.925	D	39.8 0.933	+ 0.560	D/V
# 25	NB 101 & Donohoe St	B	13.6 0.372	B	13.7 0.383	+ 0.129	D/V

Intersection		Base		Future		Change in
		Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C	
# 26 University & SB US 101	B	17.1	0.642	B 17.3	0.645	+ 0.176 D/V
# 27 University Ave. & Woodland	D	38.7	0.891	D 38.9	0.894	+ 0.182 D/V
# 28 Middlefield Rd. & University A	C	34.3	0.734	D 38.1	0.796	+ 3.762 D/V
# 29 Bayfront Exp. & Chrysler Dr.	A	7.3	0.584	B 17.1	0.681	+ 9.818 D/V
# 30 Bayfront Exp. & Chilco St.	B	17.0	0.593	B 19.2	0.617	+ 2.144 D/V
# 31 Middlefield Rd. & Ravenswood A	C	22.0	0.606	C 22.8	0.639	+ 0.800 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	28.5	0.470	C 25.4	0.478	-3.077 D/V
# 33 Middlefield Rd and Lytton Ave	C	30.0	0.594	C 31.2	0.638	+ 1.129 D/V
# 34 Bayfront Expy. and Facebook We	A	1.2	0.501	A 1.3	0.545	+ 0.101 D/V

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

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.804
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 22.5
Optimal Cycle: 84 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	3	0	0	1	0	1	0	1	0	0	2	0

Volume Module: >> Count Date: 22 Oct 2009 << 7:45 - 8:45 AM

Base Vol:	2297	189	23	7	58	148	182	20	997	7	19	5
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	2389	197	24	7	60	154	189	21	1037	7	20	5
Added Vol:	170	0	0	0	0	0	0	0	255	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2559	197	24	7	60	154	189	21	1292	7	20	5
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:	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 Volume:	2559	197	24	7	60	154	189	21	1292	7	20	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2559	197	24	7	60	154	189	21	1292	7	20	5
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:	2559	197	24	7	60	154	189	21	1292	7	20	5

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.96	0.96	0.93	0.93	0.83	0.94	0.94	0.73	0.95	0.95	0.95
Lanes:	3.00	0.89	0.11	0.22	1.78	1.00	0.90	0.10	2.00	0.23	0.61	0.16
Final Sat.:	5147	1633	199	379	3141	1583	1606	176	2786	407	1104	290

Capacity Analysis Module:

Vol/Sat:	0.50	0.12	0.12	0.02	0.02	0.10	0.12	0.12	0.46	0.02	0.02	0.02
Crit Moves:	****					****	****			****		
Green/Cycle:	0.61	0.61	0.61	0.12	0.12	0.12	0.14	0.14	0.75	0.04	0.04	0.04
Volume/Cap:	0.82	0.20	0.20	0.16	0.16	0.82	0.82	0.82	0.62	0.47	0.47	0.47
Uniform Del:	20.0	11.4	11.4	51.5	51.5	55.9	54.0	54.0	7.5	61.2	61.2	61.2
IncrementDel:	1.8	0.1	0.1	0.2	0.2	23.9	18.5	18.5	0.6	4.9	4.9	4.9
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	21.8	11.5	11.5	51.7	51.7	79.8	72.5	72.5	8.1	66.1	66.1	66.1
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:	21.8	11.5	11.5	51.7	51.7	79.8	72.5	72.5	8.1	66.1	66.1	66.1
LOS by Move:	C	B	B	D	D	E	E	E	A	E	E	E
HCM2kAvgQ:	29	4	4	1	1	8	10	10	14	2	2	2

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.997
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 33.3
Optimal Cycle: 175 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM
Base Vol: 818 0 289 0 0 0 0 1138 506 0 821 1699
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 851 0 301 0 0 0 0 1184 526 0 854 1767
Added Vol: 2 0 394 0 0 0 0 2 406 0 0 141 29
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 853 0 695 0 0 0 0 2 1590 526 0 995 1796
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Volume: 853 0 695 0 0 0 0 2 1590 0 0 995 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 853 0 695 0 0 0 0 2 1590 0 0 995 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 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
FinalVolume: 853 0 695 0 0 0 0 2 1590 0 0 995 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.00 0.83 1.00 1.00 1.00 0.89 0.89 1.00 1.00 0.93 1.00
Lanes: 2.00 0.00 1.00 0.00 0.00 0.00 0.01 1.99 1.00 0.00 2.00 1.00
Final Sat.: 3432 0 1583 0 0 0 4 3374 1900 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.25 0.00 0.44 0.00 0.00 0.00 0.47 0.47 0.00 0.00 0.28 0.00
Crit Moves: ****
Green/Cycle: 0.44 0.00 0.44 0.00 0.00 0.00 0.47 0.47 0.00 0.00 0.47 0.00
Volume/Cap: 0.56 0.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 0.00 0.60 0.00
Uniform Del: 16.7 0.0 22.3 0.0 0.0 0.0 21.1 21.1 0.0 0.0 15.5 0.0
IncrementDel: 0.5 0.0 33.3 0.0 0.0 0.0 21.8 21.8 0.0 0.0 0.6 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 17.2 0.0 55.7 0.0 0.0 0.0 42.9 42.9 0.0 0.0 16.1 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 17.2 0.0 55.7 0.0 0.0 0.0 42.9 42.9 0.0 0.0 16.1 0.0
LOS by Move: B A E A A A D D A A B A
HCM2kAvgQ: 9 0 25 0 0 0 29 29 0 0 10 0

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.883
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 23.1
Optimal Cycle: 81 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM
Base Vol: 0 0 0 879 0 558 0 834 583 0 1426 86
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 0 0 0 914 0 580 0 867 606 0 1483 89
Added Vol: 0 0 0 221 0 7 0 189 0 0 55 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 1135 0 587 0 1056 606 0 1538 89
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Volume: 0 0 0 1135 0 587 0 1056 0 0 1538 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 1135 0 587 0 1056 0 0 1538 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 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
FinalVolume: 0 0 0 1135 0 587 0 1056 0 0 1538 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.90 1.00 0.83 1.00 0.93 1.00 1.00 0.93 1.00
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 0.00 2.00 1.00 0.00 2.00 1.00
Final Sat.: 0 0 0 3432 0 1583 0 3538 1900 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.33 0.00 0.37 0.00 0.30 0.00 0.00 0.43 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.42 0.00 0.42 0.00 0.49 0.00 0.00 0.49 0.00
Volume/Cap: 0.00 0.00 0.00 0.79 0.00 0.88 0.00 0.61 0.00 0.00 0.88 0.00
Uniform Del: 0.0 0.0 0.0 20.1 0.0 21.4 0.0 14.7 0.0 0.0 18.2 0.0
IncrementDel: 0.0 0.0 0.0 3.0 0.0 13.3 0.0 0.6 0.0 0.0 5.7 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 0.0 0.0 0.0 23.1 0.0 34.7 0.0 15.3 0.0 0.0 24.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 23.1 0.0 34.7 0.0 15.3 0.0 0.0 24.0 0.0
LOS by Move: A A A C A C A B A A C A
HCM2kAvgQ: 0 0 0 14 0 17 0 10 0 0 22 0

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.843
Loss Time (sec): 14 (Y+R=4.0 sec) Average Delay (sec/veh): 24.4
Optimal Cycle: 84 Level Of Service: C

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

Table with columns: Volume Module, Count, Date (8 Oct 2009), Time (7:15 - 8:15 AM), Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.584
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.0
Optimal Cycle: 26 Level Of Service: B

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

Table with columns: Volume Module, Count, Date (7 Oct 2009), Time (7:30 - 8:30 AM), Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #6 Bay Rd. & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.646
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 16.2
Optimal Cycle: 30 Level Of Service: B

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

Table with columns: Volume Module, Count, Date (6 Oct 2009), Time (7:30 - 8:30 AM), Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)

Cycle (sec): 110 Critical Vol./Cap. (X): 0.691
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 24.8
Optimal Cycle: 54 Level Of Service: C

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

Table with columns: Volume Module, Count, Date (18 Nov 2009), Time (7:15-8:15 a.m.), Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.708
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 34.4
Optimal Cycle: 64 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Split Phase), and Lanes.

Table with 4 columns: Volume Module, Count, Date (1 Oct 2009), and time range (7:45 - 8:45 AM). Rows include Base Vol, Growth Adj, Initial Bse, etc.

Table with 4 columns: Sat/Lane, Adjustment, Lanes, and Final Sat. for Saturation Flow Module.

Table with 4 columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc. for Capacity Analysis Module.

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.577
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 21.1
Optimal Cycle: 45 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Protected), and Lanes.

Table with 4 columns: Volume Module, Count, Date (7 Oct 2009), and time range (8:00 am - 9:00 am). Rows include Base Vol, Growth Adj, Initial Bse, etc.

Table with 4 columns: Sat/Lane, Adjustment, Lanes, and Final Sat. for Saturation Flow Module.

Table with 4 columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc. for Capacity Analysis Module.

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

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

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.581
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 20.7
Optimal Cycle: 46 Level Of Service: C

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

Table with columns: Volume Module, Count, Date (6 Oct 2009), Time (7:30 - 8:30 AM), Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.512
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.1
Optimal Cycle: 40 Level Of Service: B

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

Table with columns: Volume Module, Count, Date (8 Oct 2009), Time (8:00 am - 9:00 am), Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.929
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 49.0
Optimal Cycle: 150 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Ignore), Min. Green, Lanes.

Volume Module: >> Count Date: 7 Oct 2009 << 7:30 AM to 8:30 AM
Base Vol: 350 111 36 28 178 384 148 826 155 28 1221 4
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 364 115 37 29 185 399 154 859 161 29 1270 4
Added Vol: 0 0 0 0 0 0 3 10 429 0 0 56 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 364 115 37 29 185 402 164 1288 161 29 1326 4
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: 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 Volume: 364 115 37 29 185 402 164 1288 161 29 1326 4
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 364 115 37 29 185 402 164 1288 161 29 1326 4
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: 364 115 37 29 185 402 164 1288 161 29 1326 4

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.98 0.83 0.93 0.98 0.83 0.93 0.88 0.88 0.93 0.93 0.93
Lanes: 2.00 1.00 1.00 1.00 1.00 1.00 1.00 2.67 0.33 1.00 1.99 0.01
Final Sat.: 3432 1862 1583 1769 1862 1583 1769 4441 556 1769 3527 11

Capacity Analysis Module:
Vol/Sat: 0.11 0.06 0.02 0.02 0.10 0.25 0.09 0.29 0.29 0.02 0.38 0.38
Crit Moves: ****
Green/Cycle: 0.11 0.11 0.11 0.27 0.27 0.27 0.10 0.45 0.45 0.06 0.40 0.40
Volume/Cap: 0.93 0.54 0.21 0.06 0.36 0.93 0.93 0.65 0.65 0.28 0.93 0.93
Uniform Del: 57.1 54.4 52.2 34.9 38.1 46.0 58.1 28.2 28.2 58.5 36.9 36.9
IncrementDel: 28.3 2.9 0.6 0.1 0.4 26.4 47.5 0.7 0.7 1.5 10.9 10.9
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 85.3 57.2 52.8 34.9 38.5 72.4 105.6 28.9 28.9 60.0 47.8 47.8
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: 85.3 57.2 52.8 34.9 38.5 72.4 105.6 28.9 28.9 60.0 47.8 47.8
LOS by Move: F E D C D E F C C E D D
HCM2kAvgQ: 11 5 1 6 20 10 17 17 1 31 31

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.744
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 20.0
Optimal Cycle: 63 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Ignore), Min. Green, Lanes.

Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 0 0 0 361 0 75 64 1378 0 0 1114 319
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 0 0 0 375 0 78 67 1433 0 0 1159 332
Added Vol: 0 0 0 2 0 0 0 154 0 0 45 3
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 377 0 78 67 1587 0 0 1204 335
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: 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 Volume: 0 0 0 377 0 78 67 1587 0 0 1204 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 377 0 78 67 1587 0 0 1204 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: 0 0 0 377 0 78 67 1587 0 0 1204 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.93 1.00 0.83 0.93 0.93 1.00 1.00 0.93 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 0 0 0 1769 0 1583 1769 3538 0 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.21 0.00 0.05 0.04 0.45 0.00 0.00 0.34 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.29 0.00 0.29 0.08 0.60 0.00 0.00 0.53 0.00
Volume/Cap: 0.00 0.00 0.00 0.74 0.00 0.17 0.49 0.74 0.00 0.00 0.65 0.00
Uniform Del: 0.0 0.0 0.0 32.3 0.0 26.7 44.2 14.3 0.0 0.0 17.0 0.0
IncrementDel: 0.0 0.0 0.0 5.9 0.0 0.2 2.7 1.5 0.0 0.0 0.8 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 0.0 0.0 0.0 38.2 0.0 26.9 47.0 15.7 0.0 0.0 17.8 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 38.2 0.0 26.9 47.0 15.7 0.0 0.0 17.8 0.0
LOS by Move: A A A D A C D B A A B A
HCM2kAvgQ: 0 0 0 12 0 2 3 19 0 0 14 0

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

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

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.740
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 12.5
Optimal Cycle: 51 Level Of Service: B

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

Table with columns: Volume Module, Count, Date (1 Oct 2009), Time (7:30 - 8:30 AM), Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.787
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 14.1
Optimal Cycle: 59 Level Of Service: B

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

Table with columns: Volume Module, Count, Date (30 Sep 2009), Time (7:30 - 8:30 AM), Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.759
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 14.9
Optimal Cycle: 54 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 101 85 122 31 41 7 4 794 72 41 869 5
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.71 0.89 0.89 0.31 0.96 0.96 0.21 0.97 0.97 0.16 0.98 0.98

Capacity Analysis Module:
Vol/Sat: 0.09 0.14 0.14 0.05 0.03 0.03 0.01 0.57 0.57 0.15 0.51 0.51
Crit Moves: ****
Green/Cycle: 0.18 0.18 0.18 0.18 0.18 0.18 0.75 0.75 0.75 0.75 0.75 0.75

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

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

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.088
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 89.2
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Include), Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 8:00 - 9:00 AM
Base Vol: 67 342 245 408 322 10 16 166 117 420 64 494
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.93 0.42 0.90 0.90 0.90 0.93 0.98 0.83 0.94 0.94 0.83

Capacity Analysis Module:
Vol/Sat: 0.05 0.10 0.43 0.16 0.16 0.16 0.01 0.10 0.08 0.15 0.15 0.34
Crit Moves: ****
Green/Cycle: 0.39 0.39 0.39 0.15 0.15 0.15 0.09 0.09 0.09 0.31 0.31 0.31

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

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

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 160 Critical Vol./Cap. (X): 0.814
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 30.2
Optimal Cycle: 84 Level Of Service: C

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

Table with columns: Volume Module, Count, Date, and various traffic volume metrics (Base Vol, Growth Adj, Initial Bse, etc.)

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc.

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

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

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 0.554
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 6.3
Optimal Cycle: 41 Level Of Service: A

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

Table with columns: Volume Module, Count, Date, and various traffic volume metrics (Base Vol, Growth Adj, Initial Bse, etc.)

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc.

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

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

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap. (X): 0.565
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.7
Optimal Cycle: 85 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: Table with 12 columns for volume metrics and 12 rows for various traffic metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 12 columns for saturation metrics and 4 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity metrics and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

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

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

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap. (X): 0.662
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 27.4
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: Table with 12 columns for volume metrics and 12 rows for various traffic metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 12 columns for saturation metrics and 4 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity metrics and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

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

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

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap. (X): 0.628
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 20.2
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module:

Table with 12 columns and 14 rows showing traffic volume metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 12 columns and 4 rows showing saturation flow metrics like Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:

Table with 12 columns and 14 rows showing capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

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

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

Intersection #23 University & Bell

Cycle (sec): 95 Critical Vol./Cap. (X): 0.264
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 7.4
Optimal Cycle: 91 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module:

Table with 12 columns and 14 rows showing traffic volume metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 12 columns and 4 rows showing saturation flow metrics like Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:

Table with 12 columns and 14 rows showing capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

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

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

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap. (X): 0.933
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 39.8
Optimal Cycle: 126 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 10 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 10 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 10 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

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

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

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 65 Critical Vol./Cap. (X): 0.383
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 13.7
Optimal Cycle: 57 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 10 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 10 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 10 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

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

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

Intersection #26 University & SB US 101

Cycle (sec): 85 Critical Vol./Cap. (X): 0.645
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 17.3
Optimal Cycle: 84 Level Of Service: B

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

Volume Module:

Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module:

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

Capacity Analysis Module:

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #27 University Ave. & Woodland

Cycle (sec): 100 Critical Vol./Cap. (X): 0.894
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 38.9
Optimal Cycle: 105 Level Of Service: D

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

Volume Module:

Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module:

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

Capacity Analysis Module:

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.796
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 38.1
Optimal Cycle: 85 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 12 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

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

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

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.681
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 17.1
Optimal Cycle: 51 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 12 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

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

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

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.617
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 19.2
Optimal Cycle: 44 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 time slots. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.639
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 22.8
Optimal Cycle: 30 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 time slots. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.478
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 25.4
Optimal Cycle: 22 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 21 Oct 2009 << 7:30 - 8:30 AM. Grid of traffic volume data for Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Grid of saturation flow data for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Grid of capacity analysis data for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

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

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

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 100 Critical Vol./Cap. (X): 0.638
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 31.2
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: Grid of traffic volume data for Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Grid of saturation flow data for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Grid of capacity analysis data for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

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

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec): 100 Critical Vol./Cap. (X): 0.545
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 1.3
Optimal Cycle: 90 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: Table with 12 columns representing different traffic flows. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module: Table with 12 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

 Scenario Report
 Scenario: Near Term 2015 PM
 Command: Near Term I No Project PM "B"
 Volume: Near Term I No Project PM "B"
 Geometry: Near Term I No Project PM "B"
 Impact Fee: Default Impact Fee
 Trip Generation: Near Term I No Project PM "B"
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Near Term I No Project PM "B"

 Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh	Del/ LOS	V/ Veh	
# 1 Bayfront Exp. & Marsh Rd.	D	52.4 0.980	D	52.1 0.990	-0.301 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	14.1 0.847	C	27.7 1.011	+13.608 D/V
# 3 US 101 SB Ramps & Marsh Rd.	B	19.0 0.849	C	21.5 0.880	+ 2.533 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	C	20.5 0.712	B	19.4 0.788	-1.121 D/V
# 5 Bohannon/ Florence & Marsh Rd.	C	26.5 0.605	C	20.8 0.681	-5.722 D/V
# 6 Bay Rd. & Marsh Rd.	B	15.0 0.600	B	14.4 0.618	-0.668 D/V
# 7 Middlefield at Marsh (Town of	C	31.8 0.841	C	34.0 0.910	+ 2.148 D/V
# 8 Bayfront Exp. & Willow Rd.	D	47.7 0.953	E	72.1 1.057	+24.433 D/V
# 9 Hamilton Ave. & Willow Rd.	C	22.3 0.630	C	22.2 0.645	-0.087 D/V
# 10 Ivy Dr. & Willow Rd.	B	12.2 0.565	B	13.2 0.588	+ 1.022 D/V
# 11 O'Brien Dr. & Willow Rd.	A	9.9 0.567	A	9.5 0.584	-0.385 D/V
# 12 Newbridge St. & Willow Rd.	C	33.7 0.765	D	35.5 0.858	+ 1.825 D/V
# 13 Bay Rd. & Willow Rd.	C	20.1 0.760	C	20.5 0.779	+ 0.395 D/V
# 14 Durham St. & Willow Rd.	D	49.4 0.660	B	15.8 0.731	-33.633 D/V
# 15 Coleman Ave. & Willow Rd.	B	11.5 0.760	B	11.0 0.790	-0.464 D/V
# 16 Gilbert Ave. & Willow Rd.	B	12.2 0.675	B	11.1 0.735	-1.150 D/V
# 17 Middlefield Rd. & Willow Rd.	F	133.4 1.281	F	160.0 1.352	+26.554 D/V
# 18 Bayfront Exp. & University Ave	F	164.8 1.332	F	184.1 1.391	+19.224 D/V
# 19 O'Brien Dr. & University Ave.	B	13.0 0.694	B	13.4 0.702	+ 0.368 D/V
# 20 University & Kavanaugh	B	16.2 0.668	B	16.1 0.670	-0.105 D/V
# 21 University & Bay	C	34.0 0.838	C	33.9 0.839	-0.102 D/V
# 22 University & Runnymede	C	22.9 0.702	C	22.8 0.704	-0.076 D/V
# 23 University & Bell	A	7.7 0.550	A	7.7 0.551	-0.040 D/V
# 24 University & Donohoe	D	36.6 0.877	D	36.7 0.878	+ 0.162 D/V
# 25 NB 101 & Donohoe St	C	21.3 0.484	C	21.3 0.485	+ 0.025 D/V

Intersection		Base		Future		Change in
		Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C	
# 26 University & SB US 101	C	25.4	0.529	C 25.3	0.537	-0.081 D/V
# 27 University Ave. & Woodland	D	47.1	0.894	D 47.4	0.900	+ 0.303 D/V
# 28 Middlefield Rd. & University A	C	32.9	0.559	C 33.8	0.608	+ 0.887 D/V
# 29 Bayfront Exp. & Chrysler Dr.	B	19.0	0.709	F 81.8	1.111	+62.851 D/V
# 30 Bayfront Exp. & Chilco St.	B	14.0	0.607	B 18.6	0.711	+ 4.510 D/V
# 31 Middlefield Rd. & Ravenswood A	C	26.6	0.746	C 26.7	0.761	+ 0.072 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	28.3	0.629	C 29.2	0.641	+ 0.842 D/V
# 33 Middlefield Rd and Lytton Ave	D	38.9	0.733	D 40.5	0.778	+ 1.612 D/V
# 34 Bayfront Expy. and Facebook We	A	1.3	0.526	A 1.4	0.567	+ 0.106 D/V

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

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 140 Critical Vol./Cap. (X): 0.990
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 52.1
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Include			Ovl			Ovl			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	3	0	0	1	0	1	0	1	0	0	2	0

Volume Module: >> Count Date: 22 Oct 2009 << 4:45 - 5:45 PM

Base Vol:	1184	49	7	0	346	186	139	40	1952	31	73	11
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	1231	51	7	0	360	193	145	42	2030	32	76	11
Added Vol:	757	0	0	0	0	0	0	0	23	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1988	51	7	0	360	193	145	42	2053	32	76	11
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:	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 Volume:	1988	51	7	0	360	193	145	42	2053	32	76	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1988	51	7	0	360	193	145	42	2053	32	76	11
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:	1988	51	7	0	360	193	145	42	2053	32	76	11

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.96	0.96	0.95	0.93	0.83	0.94	0.94	0.73	0.95	0.95	0.95
Lanes:	3.00	0.87	0.13	0.00	2.00	1.00	0.78	0.22	2.00	0.27	0.63	0.10
Final Sat.:	5147	1598	228	0	3538	1583	1392	401	2786	489	1151	174

Capacity Analysis Module:

Vol/Sat:	0.39	0.03	0.03	0.00	0.10	0.12	0.10	0.10	0.74	0.07	0.07	0.07
Crit Moves:	****			****					****			****
Green/Cycle:	0.39	0.39	0.39	0.00	0.10	0.46	0.35	0.35	0.74	0.07	0.07	0.07
Volume/Cap:	0.99	0.08	0.08	0.00	0.99	0.27	0.29	0.29	0.99	0.99	0.99	0.99
Uniform Del:	42.4	26.9	26.9	0.0	62.7	23.5	32.5	32.5	17.3	65.3	65.3	65.3
IncrementDel:	17.6	0.0	0.0	0.0	44.3	0.2	0.3	0.3	17.3	78.4	78.4	78.4
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	60.0	26.9	26.9	0.0	107	23.7	32.8	32.8	34.6	143.7	144	143.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	60.0	26.9	26.9	0.0	107	23.7	32.8	32.8	34.6	143.7	144	143.7
LOS by Move:	E	C	C	A	F	C	C	C	C	F	F	F
HCM2kAvgQ:	35	2	2	0	12	5	6	6	55	8	8	8

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.
Cycle (sec): 65 Critical Vol./Cap. (X): 1.011
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 27.7
Optimal Cycle: 161 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ for Capacity Analysis Module.

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.
Cycle (sec): 65 Critical Vol./Cap. (X): 0.880
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 21.5
Optimal Cycle: 74 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ for Capacity Analysis Module.

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.788
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 19.4
Optimal Cycle: 46 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Volume Module: >> Count Date: 4 Nov 2009 << 4:45 - 5:45 PM. Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

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

Capacity Analysis Module: Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.681
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 20.8
Optimal Cycle: 33 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Volume Module: >> Count Date: 7 Oct 2009 << 4:30 - 5:30 pm. Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

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

Capacity Analysis Module: Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #6 Bay Rd. & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.618
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 14.4
Optimal Cycle: 28 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM. Table with 12 columns for volume counts and 12 rows for various traffic metrics.

Saturation Flow Module: Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis and 15 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc.

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)

Cycle (sec): 110 Critical Vol./Cap. (X): 0.910
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 34.0
Optimal Cycle: 116 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 18 Nov 2009 << 5:00 - 6:00 p.m. Table with 12 columns for volume counts and 12 rows for various traffic metrics.

Saturation Flow Module: Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis and 15 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc.

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.057
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 72.1
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 4:45 - 5:45 PM. Table with 12 columns for volume counts and 12 columns for PHF, Reduct, and PCE/MLF Adj.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.645
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 22.2
Optimal Cycle: 52 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 7 Oct 2009 << 5:00 - 6:00 PM. Table with 12 columns for volume counts and 12 columns for PHF, Reduct, and PCE/MLF Adj.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.588
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.2
Optimal Cycle: 46 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 5 0 5 5 5 0 0 5 5
Lanes: 0 0 0 0 0 0 0 1 0 0 1 0 2 0 0 0 0 0 1 1 0

Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 0 0 0 10 0 122 98 1457 0 0 800 22
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 0 0 0 10 0 127 102 1515 0 0 832 23
Added Vol: 0 0 0 6 0 10 10 42 0 0 264 41
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 16 0 137 112 1557 0 0 1096 64
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 0 0 0 16 0 137 112 1557 0 0 1096 64
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 16 0 137 112 1557 0 0 1096 64
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 0 0 16 0 137 112 1557 0 0 1096 64

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.86 1.00 0.86 0.93 0.93 1.00 1.00 0.92 0.92
Lanes: 0.00 0.00 0.00 0.11 0.00 0.89 1.00 2.00 0.00 0.00 1.89 0.11
Final Sat.: 0 0 0 174 0 1454 1769 3538 0 0 3316 193

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.09 0.00 0.09 0.06 0.44 0.00 0.00 0.33 0.33
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.16 0.00 0.16 0.12 0.75 0.00 0.00 0.63 0.63
Volume/Cap: 0.00 0.00 0.00 0.59 0.00 0.59 0.53 0.59 0.00 0.00 0.53 0.53
Uniform Del: 0.0 0.0 0.0 46.7 0.0 46.7 49.6 6.8 0.0 0.0 12.4 12.4
IncrementDel: 0.0 0.0 0.0 3.5 0.0 3.5 2.4 0.4 0.0 0.0 0.2 0.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Delay/Veh: 0.0 0.0 0.0 50.2 0.0 50.2 52.0 7.1 0.0 0.0 12.6 12.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 50.2 0.0 50.2 52.0 7.1 0.0 0.0 12.6 12.6
LOS by Move: A A A D A D D A A A B B
HCM2kAvgQ: 0 0 0 6 0 6 5 14 0 0 12 12

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

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

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.584
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 9.5
Optimal Cycle: 46 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 0 5 0 0 0 0 5 5 5 5 0
Lanes: 1 0 1 0 0 0 0 0 0 0 0 0 2 0 1 1 0 2 0 0

Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 120 0 35 0 0 0 0 1413 204 73 888 0
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 125 0 36 0 0 0 0 1470 212 76 924 0
Added Vol: 4 0 0 0 0 0 0 51 11 0 274 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 129 0 36 0 0 0 0 1521 223 76 1198 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: 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 Volume: 129 0 36 0 0 0 0 1521 223 76 1198 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 129 0 36 0 0 0 0 1521 223 76 1198 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: 129 0 36 0 0 0 0 1521 223 76 1198 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.91 1.00 0.91 1.00 1.00 1.00 1.00 0.93 0.83 0.93 0.93 1.00
Lanes: 1.64 0.00 0.36 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 2839 0 625 0 0 0 0 3538 1583 1769 3538 0

Capacity Analysis Module:
Vol/Sat: 0.05 0.00 0.06 0.00 0.00 0.00 0.00 0.43 0.14 0.04 0.34 0.00
Crit Moves: ****
Green/Cycle: 0.10 0.00 0.10 0.00 0.00 0.00 0.00 0.74 0.74 0.07 0.81 0.00
Volume/Cap: 0.46 0.00 0.58 0.00 0.00 0.00 0.00 0.58 0.19 0.58 0.42 0.00
Uniform Del: 51.0 0.0 51.7 0.0 0.0 0.0 0.0 7.4 4.9 53.8 3.3 0.0
IncrementDel: 0.9 0.0 3.1 0.0 0.0 0.0 0.0 0.3 0.1 6.7 0.1 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00 0.00
Delay/Veh: 51.9 0.0 54.8 0.0 0.0 0.0 0.0 7.7 5.0 60.5 3.4 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 51.9 0.0 54.8 0.0 0.0 0.0 0.0 7.7 5.0 60.5 3.4 0.0
LOS by Move: D A D A A A A A A E A A
HCM2kAvgQ: 3 0 4 0 0 0 0 14 3 4 7 0

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.858
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 35.5
Optimal Cycle: 106 Level Of Service: D

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

Table with columns: Volume Module, Count, Date, and 12 columns of traffic volume data for different movements.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat., and 12 columns of saturation flow data.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ, and 12 columns of capacity analysis data.

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.779
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 20.5
Optimal Cycle: 68 Level Of Service: C

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

Table with columns: Volume Module, Count, Date, and 12 columns of traffic volume data for different movements.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat., and 12 columns of saturation flow data.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ, and 12 columns of capacity analysis data.

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

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

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.731
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 15.8
Optimal Cycle: 50 Level Of Service: B

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

Table with columns: Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.790
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 11.0
Optimal Cycle: 60 Level Of Service: B

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

Table with columns: Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.735
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 11.1
Optimal Cycle: 50 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 92 31 75 29 30 4 4 969 36 37 832 17
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.72 0.87 0.87 0.50 0.96 0.96 0.24 0.97 0.97 0.18 0.98 0.98

Capacity Analysis Module:
Vol/Sat: 0.08 0.07 0.07 0.03 0.02 0.02 0.01 0.60 0.60 0.16 0.53 0.53
Crit Moves: ****
Green/Cycle: 0.11 0.11 0.11 0.11 0.11 0.11 0.82 0.82 0.82 0.82 0.82 0.82

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

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

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.352
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 160.0
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 4:45 - 5:45 PM
Base Vol: 97 438 491 477 413 19 36 170 158 382 95 410
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.93 0.42 0.90 0.90 0.90 0.93 0.98 0.83 0.94 0.94 0.83

Capacity Analysis Module:
Vol/Sat: 0.07 0.13 0.68 0.19 0.19 0.19 0.02 0.11 0.12 0.16 0.16 0.29
Crit Moves: ****
Green/Cycle: 0.50 0.50 0.50 0.14 0.14 0.14 0.09 0.09 0.09 0.21 0.21 0.21

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

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

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 150 Critical Vol./Cap. (X): 1.391
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 184.1
Optimal Cycle: 180 Level Of Service: F

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 0.702
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.4
Optimal Cycle: 55 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap. (X): 0.670
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 16.1
Optimal Cycle: 85 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module:

Table with 12 columns for saturation flow metrics: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis metrics: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap. (X): 0.839
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 33.9
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module:

Table with 12 columns for saturation flow metrics: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis metrics: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap. (X): 0.704
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 22.8
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module:

Table with 12 columns for traffic volumes and 12 rows for various metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module:

Table with 12 columns for saturation flow and 4 rows: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis and 14 rows: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #23 University & Bell

Cycle (sec): 90 Critical Vol./Cap. (X): 0.551
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 7.7
Optimal Cycle: 86 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module:

Table with 12 columns for traffic volumes and 12 rows for various metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module:

Table with 12 columns for saturation flow and 4 rows: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis and 14 rows: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap. (X): 0.878
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 36.7
Optimal Cycle: 98 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: Table with 12 columns (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume) and 12 rows (North, South, East, West).

Saturation Flow Module: Table with 12 columns (Sat/Lane, Adjustment, Lanes, Final Sat.) and 12 rows (North, South, East, West).

Capacity Analysis Module: Table with 12 columns (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ) and 12 rows (North, South, East, West).

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

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

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 90 Critical Vol./Cap. (X): 0.485
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 21.3
Optimal Cycle: 82 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: Table with 12 columns (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume) and 12 rows (North, South, East, West).

Saturation Flow Module: Table with 12 columns (Sat/Lane, Adjustment, Lanes, Final Sat.) and 12 rows (North, South, East, West).

Capacity Analysis Module: Table with 12 columns (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ) and 12 rows (North, South, East, West).

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

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

Intersection #26 University & SB US 101

Cycle (sec): 90 Critical Vol./Cap. (X): 0.537
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 25.3
Optimal Cycle: 136 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Protected, Permitted, Protected), Rights (Include, Include, Ovl, Include), and Lanes.

Volume Module:

Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module:

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

Capacity Analysis Module:

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #27 University Ave. & Woodland

Cycle (sec): 110 Critical Vol./Cap. (X): 0.900
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 47.4
Optimal Cycle: 113 Level Of Service: D

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

Volume Module:

Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module:

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

Capacity Analysis Module:

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.608
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 33.8
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module:
Base Vol: 30 377 86 82 384 76 59 328 23 71 442 88
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 31 392 89 85 399 79 61 341 24 74 460 92
Added Vol: 0 34 2 16 74 9 1 0 0 14 3 12
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 31 426 91 101 473 88 62 341 24 88 463 104
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: 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 Volume: 31 426 91 101 473 88 62 341 24 88 463 104
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 31 426 91 101 473 88 62 341 24 88 463 104
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 31 426 91 101 473 88 62 341 24 88 463 104

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.92 0.92 0.92 0.92 0.92 0.95 0.94 0.94 0.95 0.92 0.92
Lanes: 0.11 1.56 0.33 0.30 1.43 0.27 1.00 1.87 0.13 1.00 1.63 0.37
Final Sat.: 200 2725 585 536 2507 466 1805 3340 234 1805 2870 642

Capacity Analysis Module:
Vol/Sat: 0.16 0.16 0.16 0.19 0.19 0.19 0.03 0.10 0.10 0.05 0.16 0.16
Crit Moves: ****
Green/Cycle: 0.26 0.26 0.26 0.31 0.31 0.31 0.06 0.22 0.22 0.11 0.27 0.27
Volume/Cap: 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.47 0.47 0.46 0.61 0.61
Uniform Del: 32.7 32.7 32.7 29.3 29.3 29.3 46.1 34.2 34.2 42.0 32.2 32.2
IncrementDel: 1.2 1.2 1.2 1.0 1.0 1.0 10.1 0.5 0.5 1.8 1.2 1.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 33.9 33.9 33.9 30.3 30.3 30.3 56.2 34.7 34.7 43.8 33.4 33.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 33.9 33.9 33.9 30.3 30.3 30.3 56.2 34.7 34.7 43.8 33.4 33.4
LOS by Move: C C C C C C E C C D C C
HCM2kAvgQ: 9 9 9 10 10 10 3 6 6 3 9 9

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

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

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.111
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 81.8
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module:5:00 - 6:00 AM
Base Vol: 10 932 0 0 2235 16 334 0 76 0 0 0 0
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 10 969 0 0 2324 17 347 0 79 0 0 0 0
Added Vol: 38 140 0 0 23 0 617 0 86 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 48 1109 0 0 2347 17 964 0 165 0 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: 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 Volume: 48 1109 0 0 2347 17 964 0 165 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 48 1109 0 0 2347 17 964 0 165 0 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: 48 1109 0 0 2347 17 964 0 165 0 0 0 0

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

Capacity Analysis Module:
Vol/Sat: 0.03 0.22 0.00 0.00 0.46 0.01 0.55 0.00 0.10 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.04 0.45 0.00 0.00 0.41 0.41 0.48 0.00 0.48 0.00 0.00 0.00
Volume/Cap: 0.71 0.49 0.00 0.00 1.13 0.03 1.13 0.00 0.22 0.00 0.00 0.00
Uniform Del: 61.8 25.4 0.0 0.0 38.4 22.9 33.6 0.0 19.4 0.0 0.0 0.0
IncrementDel: 29.5 0.2 0.0 0.0 64.6 0.0 72.6 0.0 0.1 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00
Delay/Veh: 91.3 25.5 0.0 0.0 103 22.9 106.2 0.0 19.5 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: 91.3 25.5 0.0 0.0 103 22.9 106.2 0.0 19.5 0.0 0.0 0.0
LOS by Move: F C A A F C F A B A A A
HCM2kAvgQ: 3 11 0 0 49 0 55 0 4 0 0 0 0

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

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

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.711
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 18.6
Optimal Cycle: 55 Level Of Service: B

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

Table with columns: Volume Module, Count, Date (20 Oct 2009), Time (4:45 - 5:45 PM), Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.761
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 26.7
Optimal Cycle: 44 Level Of Service: C

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

Table with columns: Volume Module, Count, Date (20 Oct 2009), Time (5:00 - 6:00 PM), Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.641
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 29.2
Optimal Cycle: 31 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 21 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 49 761 127 356 628 36 75 76 62 73 8 266
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 51 791 132 370 653 37 78 79 64 76 8 277
Added Vol: 0 28 0 2 18 0 0 0 0 0 0 0 5
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 51 819 132 372 671 37 78 79 64 76 8 282
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: 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 Volume: 51 819 132 372 671 37 78 79 64 76 8 282
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 51 819 132 372 671 37 78 79 64 76 8 282
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: 51 819 132 372 671 37 78 79 64 76 8 282

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.93 0.83 0.93 0.93 0.83 0.63 0.91 0.91 0.64 0.64 0.83
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.55 0.45 0.90 0.10 1.00
Final Sat.: 1769 3538 1583 1769 3538 1583 1192 957 781 1097 120 1583

Capacity Analysis Module:
Vol/Sat: 0.03 0.23 0.08 0.21 0.19 0.02 0.07 0.08 0.08 0.07 0.07 0.18
Crit Moves: ****
Green/Cycle: 0.10 0.36 0.36 0.33 0.59 0.59 0.28 0.28 0.28 0.28 0.28 0.28
Volume/Cap: 0.28 0.64 0.23 0.64 0.32 0.04 0.24 0.30 0.30 0.25 0.25 0.64
Uniform Del: 49.7 31.9 26.7 34.3 12.7 10.5 33.5 34.1 34.1 33.7 33.7 38.1
IncrementDel: 0.8 1.1 0.2 2.4 0.1 0.0 0.4 0.3 0.3 0.4 0.4 3.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 50.5 33.0 26.9 36.7 12.8 10.5 33.9 34.5 34.5 34.0 34.0 41.3
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: 50.5 33.0 26.9 36.7 12.8 10.5 33.9 34.5 34.5 34.0 34.0 41.3
LOS by Move: D C C D B B C C C C D
HCM2kAvgQ: 2 14 3 12 6 1 2 4 4 3 3 10

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

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

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 110 Critical Vol./Cap. (X): 0.778
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 40.5
Optimal Cycle: 85 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module:
Base Vol: 89 457 24 24 508 163 419 135 78 7 55 12
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 93 475 25 25 528 170 436 140 81 7 57 12
Added Vol: 0 48 0 0 100 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 93 523 25 25 628 170 436 140 81 7 57 12
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: 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 Volume: 93 523 25 25 628 170 436 140 81 7 57 12
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 93 523 25 25 628 170 436 140 81 7 57 12
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: 93 523 25 25 628 170 436 140 81 7 57 12

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.94 0.94 0.94 0.92 0.92 0.92 0.95 0.95 0.95 0.97 0.97 0.97
Lanes: 0.29 1.63 0.08 0.06 1.53 0.41 1.50 0.32 0.18 0.09 0.75 0.16
Final Sat.: 515 2910 139 106 2669 720 2702 577 333 175 1374 300

Capacity Analysis Module:
Vol/Sat: 0.18 0.18 0.18 0.24 0.24 0.24 0.16 0.24 0.24 0.04 0.04 0.04
Crit Moves: ****
Green/Cycle: 0.23 0.23 0.23 0.30 0.30 0.30 0.31 0.31 0.31 0.05 0.05 0.05
Volume/Cap: 0.78 0.78 0.78 0.78 0.78 0.78 0.52 0.78 0.78 0.78 0.78 0.78
Uniform Del: 39.6 39.6 39.6 35.0 35.0 35.0 31.0 34.3 34.3 51.4 51.4 51.4
IncrementDel: 4.7 4.7 4.7 3.7 3.7 3.7 0.4 4.6 4.6 31.5 31.5 31.5
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 44.4 44.4 44.4 38.7 38.7 38.7 31.3 39.0 39.0 82.9 82.9 82.9
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: 44.4 44.4 44.4 38.7 38.7 38.7 31.3 39.0 39.0 82.9 82.9 82.9
LOS by Move: D D D D D C D D F F F
HCM2kAvgQ: 12 12 12 15 15 15 8 15 15 4 4 4

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

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec): 100 Critical Vol./Cap. (X): 0.567
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 1.4
Optimal Cycle: 90 Level Of Service: A

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), Min. Green (10, 10, 10), Lanes (1 0 3 0 0, 0 0 3 0 1, 2 0 0 0 1, 0 0 0 0 0)

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Volume Module: Base Vol: 0 708 0 0 2307 0 0 0 0 0 0 0 0
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 0 736 0 0 2399 0 0 0 0 0 0 0 0
Added Vol: 0 214 0 0 191 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 950 0 0 2590 0 0 0 0 0 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: 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 Volume: 0 950 0 0 2590 0 0 0 0 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 950 0 0 2590 0 0 0 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 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: 0 950 0 0 2590 0 0 0 0 0 0 0 0

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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 0.97 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 3.00 0.00 0.00 3.00 1.00 2.00 0.00 1.00 0.00 0.00 0.00
Final Sat.: 1900 5187 0 0 5187 1900 3686 0 1900 0 0 0

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Capacity Analysis Module: Vol/Sat: 0.00 0.18 0.00 0.00 0.50 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.88 0.00 0.00 0.88 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.21 0.00 0.00 0.57 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Uniform Del: 0.0 0.9 0.0 0.0 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0
IncrementDel: 0.0 0.0 0.0 0.0 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 0.9 0.0 0.0 1.6 0.0 0.0 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 0.9 0.0 0.0 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0
LOS by Move: A A A A A A A A A A A A
HCM2kAvgQ: 0 2 0 0 8 0 0 0 0 0 0 0

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

 Scenario Report
 Scenario: Near Term 2015 East Campus Only AM

Command: Near Term I Project AM
 Volume: Near Term I Project AM
 Geometry: Near Term I Project AM
 Impact Fee: Default Impact Fee
 Trip Generation: Near Term I Project AM
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Near Term I Project AM

 Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh	Del/ LOS	V/ Veh	
# 1 Bayfront Exp. & Marsh Rd.	C	22.3 0.768	C	22.5 0.807	+ 0.145 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	16.0 0.638	D	43.3 1.057	+27.383 D/V
# 3 US 101 SB Ramps & Marsh Rd.	C	21.3 0.861	C	24.1 0.885	+ 2.776 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	C	27.4 0.822	C	24.4 0.845	-2.921 D/V
# 5 Bohannon/ Florence & Marsh Rd.	B	19.5 0.565	B	14.9 0.586	-4.688 D/V
# 6 Bay Rd. & Marsh Rd.	B	16.5 0.586	B	16.3 0.674	-0.164 D/V
# 7 Middlefield at Marsh (Town of	C	26.2 0.610	C	26.3 0.737	+ 0.100 D/V
# 8 Bayfront Exp. & Willow Rd.	C	27.5 0.610	D	45.2 0.887	+17.687 D/V
# 9 Hamilton Ave. & Willow Rd.	C	22.9 0.559	C	20.4 0.586	-2.496 D/V
# 10 Ivy Dr. & Willow Rd.	B	18.0 0.517	C	22.5 0.640	+ 4.585 D/V
# 11 O'Brien Dr. & Willow Rd.	B	15.0 0.464	B	13.2 0.606	-1.775 D/V
# 12 Newbridge St. & Willow Rd.	D	48.5 0.903	D	49.2 0.937	+ 0.641 D/V
# 13 Bay Rd. & Willow Rd.	C	20.0 0.694	B	20.0 0.765	-0.052 D/V
# 14 Durham St. & Willow Rd.	C	24.8 0.714	B	12.4 0.743	-12.423 D/V
# 15 Coleman Ave. & Willow Rd.	B	13.0 0.715	B	14.9 0.825	+ 1.872 D/V
# 16 Gilbert Ave. & Willow Rd.	B	14.0 0.663	B	15.8 0.798	+ 1.722 D/V
# 17 Middlefield Rd. & Willow Rd.	F	101.2 0.947	F	100.7 1.133	-0.478 D/V
# 18 Bayfront Exp. & University Ave	C	29.2 0.805	C	30.7 0.835	+ 1.450 D/V
# 19 O'Brien Dr. & University Ave.	A	6.4 0.548	A	6.2 0.555	-0.137 D/V
# 20 University & Kavanaugh	B	13.8 0.563	B	13.6 0.566	-0.266 D/V
# 21 University & Bay	C	27.7 0.661	C	27.2 0.663	-0.464 D/V
# 22 University & Runnymede	C	20.3 0.627	C	20.1 0.630	-0.237 D/V
# 23 University & Bell	A	7.6 0.246	A	7.2 0.277	-0.459 D/V
# 24 University & Donohoe	D	39.3 0.925	D	40.3 0.939	+ 1.038 D/V
# 25 NB 101 & Donohoe St	B	9.0 0.382	B	9.1 0.400	+ 0.160 D/V

Intersection		Base		Future		Change in
		Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C	
# 26 University & SB US 101	B	17.1	0.642	B 17.5	0.646	+ 0.322 D/V
# 27 University Ave. & Woodland	D	38.7	0.891	D 38.9	0.895	+ 0.208 D/V
# 28 Middlefield Rd. & University A	C	34.3	0.734	D 39.2	0.815	+ 4.887 D/V
# 29 Bayfront Exp. & Chrysler Dr.	A	7.3	0.584	B 17.1	0.684	+ 9.800 D/V
# 30 Bayfront Exp. & Chilco St.	B	17.0	0.593	B 19.2	0.620	+ 2.182 D/V
# 31 Middlefield Rd. & Ravenswood A	C	22.0	0.606	C 23.1	0.653	+ 1.131 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	28.5	0.470	C 25.3	0.479	-3.218 D/V
# 33 Middlefield Rd and Lytton Ave	C	30.0	0.594	C 31.5	0.648	+ 1.412 D/V
# 34 Bayfront Expy. and Facebook We	A	1.2	0.501	A 1.3	0.548	+ 0.106 D/V

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

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.807
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 22.5
Optimal Cycle: 85 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Split Phase Split Phase
Rights: Include Include Ovl Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 3 0 0 1 0 0 1 1 0 1 0 1 0 0 2 0 0 1 0 0

-----|-----|-----|-----|
Volume Module: >> Count Date: 22 Oct 2009 << 7:45 - 8:45 AM
Base Vol: 2297 189 23 7 58 148 182 20 997 7 19 5
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 2389 197 24 7 60 154 189 21 1037 7 20 5
Added Vol: 183 0 0 0 0 0 0 0 442 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 2572 197 24 7 60 154 189 21 1479 7 20 5
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: 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 Volume: 2572 197 24 7 60 154 189 21 1479 7 20 5
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2572 197 24 7 60 154 189 21 1479 7 20 5
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: 2572 197 24 7 60 154 189 21 1479 7 20 5
-----|-----|-----|-----|

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.96 0.96 0.93 0.93 0.83 0.94 0.94 0.73 0.95 0.95 0.95
Lanes: 3.00 0.89 0.11 0.22 1.78 1.00 0.90 0.10 2.00 0.23 0.61 0.16
Final Sat.: 5147 1633 199 379 3141 1583 1606 176 2786 407 1104 290
-----|-----|-----|-----|

Capacity Analysis Module:
Vol/Sat: 0.50 0.12 0.12 0.02 0.02 0.10 0.12 0.12 0.53 0.02 0.02 0.02
Crit Moves: **** **** ****
Green/Cycle: 0.61 0.61 0.61 0.12 0.12 0.12 0.14 0.14 0.75 0.04 0.04 0.04
Volume/Cap: 0.82 0.20 0.20 0.16 0.16 0.82 0.82 0.82 0.71 0.47 0.47 0.47
Uniform Del: 20.0 11.4 11.4 51.5 51.5 56.0 54.1 54.1 8.6 61.2 61.2 61.2
IncrementDel: 1.9 0.1 0.1 0.2 0.2 24.4 18.9 18.9 1.1 4.9 4.9 4.9
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 21.9 11.5 11.5 51.7 51.7 80.4 73.0 73.0 9.7 66.1 66.1 66.1
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: 21.9 11.5 11.5 51.7 51.7 80.4 73.0 73.0 9.7 66.1 66.1 66.1
LOS by Move: C B B D D F E E A E E E
HCM2kAvgQ: 29 4 4 1 1 8 10 10 18 2 2 2

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 1.057
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 43.3
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Permitted), Rights (Include, Ignore), and Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM
Base Vol: 818 0 289 0 0 0 0 1138 506 0 821 1699
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 851 0 301 0 0 0 0 1184 526 0 854 1767
Added Vol: 2 0 394 0 0 0 0 2 592 0 0 148 35
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 853 0 695 0 0 0 2 1776 526 0 1002 1802
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Volume: 853 0 695 0 0 0 2 1776 0 0 1002 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 853 0 695 0 0 0 2 1776 0 0 1002 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 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
FinalVolume: 853 0 695 0 0 0 2 1776 0 0 1002 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.00 0.83 1.00 1.00 1.00 0.89 0.89 1.00 1.00 0.93 1.00
Lanes: 2.00 0.00 1.00 0.00 0.00 0.00 0.01 1.99 1.00 0.00 2.00 1.00
Final Sat.: 3432 0 1583 0 0 0 4 3375 1900 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.25 0.00 0.44 0.00 0.00 0.00 0.53 0.53 0.00 0.00 0.28 0.00
Crit Moves: ****
Green/Cycle: 0.41 0.00 0.41 0.00 0.00 0.00 0.50 0.50 0.00 0.00 0.50 0.00
Volume/Cap: 0.60 0.00 1.06 0.00 0.00 0.00 1.06 1.06 0.00 0.00 0.57 0.00
Uniform Del: 18.2 0.0 23.4 0.0 0.0 0.0 20.1 20.1 0.0 0.0 14.1 0.0
IncrementDel: 0.7 0.0 51.3 0.0 0.0 0.0 39.0 39.0 0.0 0.0 0.4 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 18.9 0.0 74.7 0.0 0.0 0.0 59.1 59.1 0.0 0.0 14.5 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 18.9 0.0 74.7 0.0 0.0 0.0 59.1 59.1 0.0 0.0 14.5 0.0
LOS by Move: B A E A A A E E A A B A
HCM2kAvgQ: 9 0 27 0 0 0 35 35 0 0 10 0

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.885
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 24.1
Optimal Cycle: 82 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Permitted), Rights (Include, Ignore), and Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM
Base Vol: 0 0 0 879 0 558 0 834 583 0 1426 86
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 0 0 0 914 0 580 0 867 606 0 1483 89
Added Vol: 0 0 0 315 0 7 0 282 0 0 62 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 1229 0 587 0 1149 606 0 1545 89
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Volume: 0 0 0 1229 0 587 0 1149 0 0 1545 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 1229 0 587 0 1149 0 0 1545 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 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
FinalVolume: 0 0 0 1229 0 587 0 1149 0 0 1545 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.90 1.00 0.83 1.00 0.93 1.00 1.00 0.93 1.00
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 0.00 2.00 1.00 0.00 2.00 1.00
Final Sat.: 0 0 0 3432 0 1583 0 3538 1900 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.36 0.00 0.37 0.00 0.32 0.00 0.00 0.44 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.42 0.00 0.42 0.00 0.49 0.00 0.00 0.49 0.00
Volume/Cap: 0.00 0.00 0.00 0.85 0.00 0.89 0.00 0.66 0.00 0.00 0.89 0.00
Uniform Del: 0.0 0.0 0.0 21.0 0.0 21.5 0.0 15.2 0.0 0.0 18.2 0.0
IncrementDel: 0.0 0.0 0.0 5.2 0.0 13.5 0.0 0.9 0.0 0.0 5.8 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 0.0 0.0 0.0 26.2 0.0 35.0 0.0 16.1 0.0 0.0 24.1 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 26.2 0.0 35.0 0.0 16.1 0.0 0.0 24.1 0.0
LOS by Move: A A A C A C A B A A C A
HCM2kAvgQ: 0 0 0 17 0 17 0 12 0 0 22 0

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.845
Loss Time (sec): 14 (Y+R=4.0 sec) Average Delay (sec/veh): 24.4
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 volume categories (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Sat/Lane, Adjustment, Lanes, Final Sat., and 10 saturation flow categories.

Table with 12 columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.586
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 14.9
Optimal Cycle: 26 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 volume categories (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Sat/Lane, Adjustment, Lanes, Final Sat., and 10 saturation flow categories.

Table with 12 columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #6 Bay Rd. & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.674
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 16.3
Optimal Cycle: 32 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ for Capacity Analysis Module.

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)
Cycle (sec): 110 Critical Vol./Cap. (X): 0.737
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 26.3
Optimal Cycle: 61 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ for Capacity Analysis Module.

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.887
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 45.2
Optimal Cycle: 117 Level Of Service: D

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Table with columns: Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.586
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 20.4
Optimal Cycle: 46 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Table with columns: Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.640
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 22.5
Optimal Cycle: 52 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.606
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.2
Optimal Cycle: 48 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.937
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 49.2
Optimal Cycle: 156 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Ignore), Min. Green, Lanes.

Volume Module: >> Count Date: 7 Oct 2009 << 7:30 AM to 8:30 AM
Base Vol: 350 111 36 28 178 384 148 826 155 28 1221 4
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 364 115 37 29 185 399 154 859 161 29 1270 4
Added Vol: 0 0 0 0 0 0 3 10 735 0 0 80 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 364 115 37 29 185 402 164 1594 161 29 1350 4
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: 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 Volume: 364 115 37 29 185 402 164 1594 161 29 1350 4
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 364 115 37 29 185 402 164 1594 161 29 1350 4
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: 364 115 37 29 185 402 164 1594 161 29 1350 4

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.98 0.83 0.93 0.98 0.83 0.93 0.88 0.88 0.93 0.93 0.93
Lanes: 2.00 1.00 1.00 1.00 1.00 1.00 1.00 2.72 0.28 1.00 1.99 0.01
Final Sat.: 3432 1862 1583 1769 1862 1583 1769 4552 460 1769 3527 11

Capacity Analysis Module:
Vol/Sat: 0.11 0.06 0.02 0.02 0.10 0.25 0.09 0.35 0.35 0.02 0.38 0.38
Crit Moves: ****
Green/Cycle: 0.11 0.11 0.11 0.27 0.27 0.27 0.10 0.46 0.46 0.05 0.41 0.41
Volume/Cap: 0.94 0.55 0.21 0.06 0.37 0.94 0.94 0.77 0.77 0.33 0.94 0.94
Uniform Del: 57.2 54.5 52.3 35.1 38.3 46.3 58.2 29.5 29.5 59.6 36.8 36.8
IncrementDel: 30.0 3.0 0.6 0.1 0.5 28.0 49.7 1.6 1.6 2.2 11.7 11.7
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 87.1 57.5 52.9 35.1 38.8 74.3 107.9 31.1 31.1 61.8 48.5 48.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 87.1 57.5 52.9 35.1 38.8 74.3 107.9 31.1 31.1 61.8 48.5 48.5
LOS by Move: F E D D D E F C C E D D
HCM2kAvgQ: 11 5 1 6 20 10 22 22 1 32 32

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.765
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 20.0
Optimal Cycle: 67 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Ignore), Min. Green, Lanes.

Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 0 0 0 361 0 75 64 1378 0 0 1114 319
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 0 0 0 375 0 78 67 1433 0 0 1159 332
Added Vol: 0 0 0 2 0 0 0 220 0 0 50 3
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 377 0 78 67 1653 0 0 1209 335
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: 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 Volume: 0 0 0 377 0 78 67 1653 0 0 1209 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 377 0 78 67 1653 0 0 1209 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: 0 0 0 377 0 78 67 1653 0 0 1209 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.93 1.00 0.83 0.93 0.93 1.00 1.00 0.93 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 0 0 0 1769 0 1583 1769 3538 0 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.21 0.00 0.05 0.04 0.47 0.00 0.00 0.34 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.28 0.00 0.28 0.08 0.61 0.00 0.00 0.53 0.00
Volume/Cap: 0.00 0.00 0.00 0.76 0.00 0.18 0.48 0.76 0.00 0.00 0.64 0.00
Uniform Del: 0.0 0.0 0.0 33.0 0.0 27.3 44.2 14.2 0.0 0.0 16.6 0.0
IncrementDel: 0.0 0.0 0.0 7.0 0.0 0.2 2.6 1.7 0.0 0.0 0.8 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 0.0 0.0 0.0 40.1 0.0 27.5 46.8 15.9 0.0 0.0 17.3 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 40.1 0.0 27.5 46.8 15.9 0.0 0.0 17.3 0.0
LOS by Move: A A A D A C D B A A B A
HCM2kAvgQ: 0 0 0 12 0 2 3 21 0 0 14 0

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

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

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.743
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 12.4
Optimal Cycle: 51 Level Of Service: B

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

Table with columns: Volume Module, Count, Date (1 Oct 2009), Time (7:30 - 8:30 AM), Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.825
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 14.9
Optimal Cycle: 68 Level Of Service: B

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

Table with columns: Volume Module, Count, Date (30 Sep 2009), Time (7:30 - 8:30 AM), Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.798
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 15.8
Optimal Cycle: 61 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Permitted, Include), and Lanes (1 0 0 1 0).

Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 101 85 122 31 41 7 4 794 72 41 869 5
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.71 0.89 0.89 0.29 0.96 0.96 0.21 0.97 0.97 0.14 0.98 0.98

Capacity Analysis Module:
Vol/Sat: 0.09 0.14 0.14 0.06 0.03 0.03 0.01 0.60 0.60 0.18 0.51 0.51
Crit Moves: ****
Green/Cycle: 0.18 0.18 0.18 0.18 0.18 0.18 0.75 0.75 0.75 0.75 0.75 0.75

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

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

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.133
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 100.7
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Split Phase, Include), and Lanes (1 0 2 0 1).

Volume Module: >> Count Date: 30 Sep 2009 << 8:00 - 9:00 AM
Base Vol: 67 342 245 408 322 10 16 166 117 420 64 494
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.93 0.42 0.90 0.90 0.90 0.93 0.98 0.83 0.94 0.94 0.83

Capacity Analysis Module:
Vol/Sat: 0.05 0.10 0.46 0.17 0.17 0.17 0.01 0.10 0.08 0.15 0.15 0.34
Crit Moves: ****
Green/Cycle: 0.41 0.41 0.41 0.15 0.15 0.15 0.09 0.09 0.09 0.30 0.30 0.30

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

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

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 160 Critical Vol./Cap. (X): 0.835
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 30.7
Optimal Cycle: 92 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 7:15 - 8:15 AM
Base Vol: 1541 2882 0 0 884 188 179 0 429 0 0 0
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 1603 2997 0 0 919 196 186 0 446 0 0 0
Added Vol: 10 439 0 0 61 8 109 0 2 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 1613 3436 0 0 980 204 295 0 448 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: 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 Volume: 1613 3436 0 0 980 204 295 0 448 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 1613 3436 0 0 980 204 295 0 448 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: 1613 3436 0 0 980 204 295 0 448 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.89 1.00 1.00 0.89 0.83 0.90 1.00 0.73 1.00 1.00 1.00
Lanes: 2.00 3.00 0.00 0.00 3.00 1.00 2.00 0.00 3.00 0.00 0.00 0.00
Final Sat.: 3432 5083 0 0 5083 1583 3432 0 4178 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.47 0.68 0.00 0.00 0.19 0.13 0.09 0.00 0.11 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.57 0.81 0.00 0.00 0.24 0.24 0.13 0.00 0.13 0.00 0.00 0.00
Volume/Cap: 0.82 0.84 0.00 0.00 0.82 0.55 0.67 0.00 0.84 0.00 0.00 0.00
Uniform Del: 27.4 9.0 0.0 0.0 57.9 53.7 66.5 0.0 68.1 0.0 0.0 0.0
IncrementDel: 2.8 1.6 0.0 0.0 4.6 1.7 4.0 0.0 10.9 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00
Delay/Veh: 30.3 10.6 0.0 0.0 62.5 55.4 70.5 0.0 79.0 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: 30.3 10.6 0.0 0.0 62.5 55.4 70.5 0.0 79.0 0.0 0.0 0.0
LOS by Move: C B A A E E E A A A A A
HCM2kAvgQ: 34 37 0 0 18 9 8 0 10 0 0 0

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

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

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 0.555
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 6.2
Optimal Cycle: 41 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Lanes.

Volume Module: >> Count Date: 8 Oct 2009 << 7:45 - 8:45 AM
Base Vol: 0 0 0 22 0 22 68 526 0 0 1341 46
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 0 0 0 23 0 23 71 547 0 0 1395 48
Added Vol: 0 0 0 2 0 0 0 109 0 0 8 10
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 25 0 23 71 656 0 0 1403 58
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: 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 Volume: 0 0 0 25 0 23 71 656 0 0 1403 58
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 25 0 23 71 656 0 0 1403 58
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 0 0 25 0 23 71 656 0 0 1403 58

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.89 1.00 0.89 0.93 0.93 1.00 1.00 0.93 0.93
Lanes: 0.00 0.00 0.00 0.52 0.00 0.48 1.00 2.00 0.00 0.00 1.92 0.08
Final Sat.: 0 0 0 884 0 813 1769 3538 0 0 3377 139

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.03 0.00 0.03 0.04 0.19 0.00 0.00 0.42 0.42
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.06 0.00 0.06 0.07 0.81 0.00 0.00 0.74 0.74
Volume/Cap: 0.00 0.00 0.00 0.48 0.00 0.48 0.56 0.23 0.00 0.00 0.56 0.56
Uniform Del: 0.0 0.0 0.0 38.7 0.0 38.7 38.2 1.8 0.0 0.0 4.9 4.9
IncrementDel: 0.0 0.0 0.0 3.6 0.0 3.6 5.6 0.0 0.0 0.0 0.3 0.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Delay/Veh: 0.0 0.0 0.0 42.3 0.0 42.3 43.8 1.9 0.0 0.0 5.2 5.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 42.3 0.0 42.3 43.8 1.9 0.0 0.0 5.2 5.2
LOS by Move: A A A D A D D A A A A A
HCM2kAvgQ: 0 0 0 2 0 2 3 2 0 0 9 9

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

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

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap. (X): 0.566
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.6
Optimal Cycle: 85 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: Table with 12 columns for volume metrics (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume) across 4 approaches.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across 4 approaches.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ across 4 approaches.

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

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

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap. (X): 0.663
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 27.2
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: Table with 12 columns for volume metrics (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume) across 4 approaches.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across 4 approaches.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ across 4 approaches.

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

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

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap. (X): 0.630
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 20.1
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 12 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

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

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

Intersection #23 University & Bell

Cycle (sec): 95 Critical Vol./Cap. (X): 0.277
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 7.2
Optimal Cycle: 91 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 12 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

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

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

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap. (X): 0.939
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 40.3
Optimal Cycle: 130 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 12 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

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

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 65 Critical Vol./Cap. (X): 0.400
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 9.1
Optimal Cycle: 57 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 12 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue).

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

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

Intersection #26 University & SB US 101

Cycle (sec): 85 Critical Vol./Cap. (X): 0.646
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 17.5
Optimal Cycle: 88 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #27 University Ave. & Woodland

Cycle (sec): 100 Critical Vol./Cap. (X): 0.895
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 38.9
Optimal Cycle: 105 Level Of Service: D

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.815
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 39.2
Optimal Cycle: 85 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.684
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 17.1
Optimal Cycle: 51 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Includes Date: 21 Oct 2009 << 7:15 - 8:15 AM. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.620
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 19.2
Optimal Cycle: 44 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 traffic flow metrics. Date: 20 Oct 2009 << 7:45 - 8:45 AM.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat. Values range from 0.93 to 1.00.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.653
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 23.1
Optimal Cycle: 31 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 traffic flow metrics. Date: 20 Oct 2009 << 7:45 - 8:45 AM.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat. Values range from 0.93 to 1.00.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.479
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 25.3
Optimal Cycle: 22 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 4 columns: Volume Module, Count, Date (21 Oct 2009), and time range (7:30 - 8:30 AM). Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Table with 4 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 4 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 100 Critical Vol./Cap. (X): 0.648
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 31.5
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 4 columns: Volume Module, Count, Date (21 Oct 2009), and time range (7:30 - 8:30 AM). Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Table with 4 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 4 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

 Intersection #34 Bayfront Expy. and Facebook West Campus

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.548
 Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 1.3
 Optimal Cycle: 90 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	1	0	3	0	0	3	2	0	0	0	0	0

Volume Module:

Base Vol:	0	2197	0	0	782	0	0	0	0	0	0	0
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	0	2285	0	0	813	0	0	0	0	0	0	0
Added Vol:	0	216	0	0	483	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2501	0	0	1296	0	0	0	0	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:	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 Volume:	0	2501	0	0	1296	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2501	0	0	1296	0	0	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	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	2501	0	0	1296	0	0	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	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1900	5187	0	0	5187	1900	3686	0	1900	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.48	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****			****								
Green/Cycle:	0.00	0.88	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Volume/Cap:	0.00	0.55	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Del:	0.0	1.4	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IncrementDel:	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	1.5	0.0	0.0	1.0	0.0	0.0	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	1.5	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	0	7	0	0	3	0	0	0	0	0	0	0

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

 Scenario Report
 Scenario: Near Term 2015 East Campus Only PM

Command: Near Term I Project PM
 Volume: Near Term I Project PM
 Geometry: Near Term I Project PM
 Impact Fee: Default Impact Fee
 Trip Generation: Near Term I Project PM
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Near Term I Project PM

 Impact Analysis Report
 Level Of Service

Intersection	Base LOS	Del/ Veh	V/ C	Future LOS	Del/ Veh	V/ C	Change in
# 1 Bayfront Exp. & Marsh Rd.	D	52.4	0.980	D	53.9	1.001	+ 1.551 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	14.1	0.847	C	28.9	1.021	+14.790 D/V
# 3 US 101 SB Ramps & Marsh Rd.	B	19.0	0.849	C	23.3	0.908	+ 4.335 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	C	20.5	0.712	C	20.2	0.825	-0.380 D/V
# 5 Bohannon/ Florence & Marsh Rd.	C	26.5	0.605	C	20.9	0.718	-5.607 D/V
# 6 Bay Rd. & Marsh Rd.	B	15.0	0.600	B	14.3	0.623	-0.791 D/V
# 7 Middlefield at Marsh (Town of	C	31.8	0.841	D	38.5	0.952	+ 6.656 D/V
# 8 Bayfront Exp. & Willow Rd.	D	47.7	0.953	F	107.1	1.179	+59.360 D/V
# 9 Hamilton Ave. & Willow Rd.	C	22.3	0.630	C	23.1	0.716	+ 0.831 D/V
# 10 Ivy Dr. & Willow Rd.	B	12.2	0.565	B	13.6	0.696	+ 1.452 D/V
# 11 O'Brien Dr. & Willow Rd.	A	9.9	0.567	A	9.1	0.600	-0.733 D/V
# 12 Newbridge St. & Willow Rd.	C	33.7	0.765	D	44.9	0.992	+11.229 D/V
# 13 Bay Rd. & Willow Rd.	C	20.1	0.760	C	20.8	0.783	+ 0.678 D/V
# 14 Durham St. & Willow Rd.	D	49.4	0.660	B	16.5	0.782	-32.886 D/V
# 15 Coleman Ave. & Willow Rd.	B	11.5	0.760	B	11.6	0.796	+ 0.111 D/V
# 16 Gilbert Ave. & Willow Rd.	B	12.2	0.675	B	11.3	0.741	-0.931 D/V
# 17 Middlefield Rd. & Willow Rd.	F	133.4	1.281	F	169.2	1.386	+35.778 D/V
# 18 Bayfront Exp. & University Ave	F	164.8	1.332	F	192.8	1.419	+27.929 D/V
# 19 O'Brien Dr. & University Ave.	B	13.0	0.694	B	13.3	0.705	+ 0.282 D/V
# 20 University & Kavanaugh	B	16.2	0.668	B	16.0	0.672	-0.265 D/V
# 21 University & Bay	C	34.0	0.838	C	33.8	0.841	-0.263 D/V
# 22 University & Runnymede	C	22.9	0.702	C	22.7	0.706	-0.170 D/V
# 23 University & Bell	A	7.7	0.550	A	7.6	0.553	-0.093 D/V
# 24 University & Donohoe	D	36.6	0.877	D	37.1	0.879	+ 0.498 D/V
# 25 NB 101 & Donohoe St	C	21.3	0.484	C	21.3	0.487	+ 0.059 D/V

Intersection		Base		Future		Change in
		Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C	
# 26 University & SB US 101	C	25.4	0.529	C 25.3	0.545	-0.083 D/V
# 27 University Ave. & Woodland	D	47.1	0.894	D 47.3	0.901	+ 0.281 D/V
# 28 Middlefield Rd. & University A	C	32.9	0.559	C 34.4	0.624	+ 1.482 D/V
# 29 Bayfront Exp. & Chrysler Dr.	B	19.0	0.709	F 81.6	1.118	+62.594 D/V
# 30 Bayfront Exp. & Chilco St.	B	14.0	0.607	B 18.1	0.717	+ 4.105 D/V
# 31 Middlefield Rd. & Ravenswood A	C	26.6	0.746	C 26.7	0.764	+ 0.028 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	28.3	0.629	C 29.2	0.653	+ 0.848 D/V
# 33 Middlefield Rd and Lytton Ave	D	38.9	0.733	D 41.0	0.791	+ 2.094 D/V
# 34 Bayfront Expy. and Facebook We	A	1.3	0.526	A 1.4	0.574	+ 0.113 D/V

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

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 140 Critical Vol./Cap. (X): 1.001
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 53.9
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Include			Ovl			Ovl			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	3	0	0	1	0	1	0	1	0	0	2	0

Volume Module: >> Count Date: 22 Oct 2009 << 4:45 - 5:45 PM

Base Vol:	1184	49	7	0	346	186	139	40	1952	31	73	11
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	1231	51	7	0	360	193	145	42	2030	32	76	11
Added Vol:	980	0	0	0	0	0	0	0	53	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2211	51	7	0	360	193	145	42	2083	32	76	11
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:	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 Volume:	2211	51	7	0	360	193	145	42	2083	32	76	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2211	51	7	0	360	193	145	42	2083	32	76	11
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:	2211	51	7	0	360	193	145	42	2083	32	76	11

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.96	0.96	0.95	0.93	0.83	0.94	0.94	0.73	0.95	0.95	0.95
Lanes:	3.00	0.87	0.13	0.00	2.00	1.00	0.78	0.22	2.00	0.27	0.63	0.10
Final Sat.:	5147	1598	228	0	3538	1583	1392	401	2786	489	1151	174

Capacity Analysis Module:

Vol/Sat:	0.43	0.03	0.03	0.00	0.10	0.12	0.10	0.10	0.75	0.07	0.07	0.07
Crit Moves:	****			****			****			****		
Green/Cycle:	0.43	0.43	0.43	0.00	0.10	0.42	0.32	0.32	0.75	0.07	0.07	0.07
Volume/Cap:	1.00	0.07	0.07	0.00	1.00	0.29	0.33	0.33	1.00	1.00	1.00	1.00
Uniform Del:	40.0	23.6	23.6	0.0	62.9	26.9	36.4	36.4	17.7	65.4	65.4	65.4
IncramntDel:	19.5	0.0	0.0	0.0	47.8	0.2	0.3	0.3	20.0	82.7	82.7	82.7
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	59.4	23.6	23.6	0.0	111	27.1	36.7	36.7	37.8	148.1	148	148.1
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:	59.4	23.6	23.6	0.0	111	27.1	36.7	36.7	37.8	148.1	148	148.1
LOS by Move:	E	C	C	A	F	C	D	D	D	F	F	F
HCM2kAvgQ:	39	1	1	0	12	5	6	6	58	9	9	9

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.
Cycle (sec): 65 Critical Vol./Cap. (X): 1.021
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 28.9
Optimal Cycle: 178 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ for Capacity Analysis Module.

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.
Cycle (sec): 65 Critical Vol./Cap. (X): 0.908
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 23.3
Optimal Cycle: 83 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ for Capacity Analysis Module.

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.825
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 20.2
Optimal Cycle: 54 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include, Include, Include), Min. Green (4, 4, 4, 4), Lanes (0 1 0 0 2, 0 1 0 0 1, 1 0 2 1 0, 2 0 1 1 0)

Volume Module: >> Count Date: 4 Nov 2009 << 4:45 - 5:45 PM
Base Vol: 28 15 267 254 9 2 42 1314 17 78 1109 214
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 29 16 278 264 9 2 44 1367 18 81 1153 223
Added Vol: 0 0 0 0 0 0 0 0 63 0 0 377 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 29 16 278 264 9 2 44 1430 18 81 1530 223
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: 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 Volume: 29 16 278 264 9 2 44 1430 18 81 1530 223
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 29 16 278 264 9 2 44 1430 18 81 1530 223
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: 29 16 278 264 9 2 44 1430 18 81 1530 223

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 0.73 0.93 0.93 0.83 0.93 0.89 0.89 0.90 0.91 0.91
Lanes: 0.65 0.35 2.00 0.97 0.03 1.00 1.00 2.96 0.04 2.00 1.75 0.25
Final Sat.: 1174 629 2786 1716 61 1583 1769 5011 62 3432 3030 441

Capacity Analysis Module:
Vol/Sat: 0.02 0.02 0.10 0.15 0.15 0.00 0.02 0.29 0.29 0.02 0.51 0.51
Crit Moves: ****
Green/Cycle: 0.12 0.12 0.12 0.18 0.18 0.18 0.05 0.55 0.55 0.10 0.60 0.60
Volume/Cap: 0.21 0.21 0.84 0.84 0.84 0.01 0.49 0.52 0.52 0.24 0.84 0.84
Uniform Del: 31.9 31.9 34.5 31.6 31.6 26.8 37.0 11.2 11.2 33.4 13.0 13.0
IncrementDel: 0.5 0.5 17.6 17.8 17.8 0.0 4.3 0.2 0.2 0.4 3.3 3.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 32.4 32.4 52.1 49.4 49.4 26.8 41.3 11.4 11.4 33.8 16.3 16.3
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: 32.4 32.4 52.1 49.4 49.4 26.8 41.3 11.4 11.4 33.8 16.3 16.3
LOS by Move: C C D D D C D B C B B
HCM2kAvgQ: 1 1 6 9 9 0 2 8 8 1 21 21

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.718
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 20.9
Optimal Cycle: 36 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include, Include, Include), Min. Green (4, 4, 4, 4), Lanes (1 0 0 1 0, 1 1 0 0 1, 1 0 1 1 0, 1 0 2 0 1)

Volume Module: >> Count Date: 7 Oct 2009 << 4:30 - 5:30 pm
Base Vol: 95 32 58 428 30 128 239 885 55 26 833 316
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 99 33 60 445 31 133 249 920 57 27 866 329
Added Vol: 0 0 0 0 0 0 0 0 63 0 0 377 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 99 33 60 445 31 133 249 983 57 27 1243 329
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: 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 Volume: 99 33 60 445 31 133 249 983 57 27 1243 329
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 99 33 60 445 31 133 249 983 57 27 1243 329
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: 99 33 60 445 31 133 249 983 57 27 1243 329

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.88 0.88 0.94 0.94 0.83 0.93 0.92 0.92 0.93 0.93 0.83
Lanes: 1.00 0.36 0.64 1.87 0.13 1.00 1.00 1.89 0.11 1.00 2.00 1.00
Final Sat.: 1769 598 1084 3323 233 1583 1769 3317 193 1769 3538 1583

Capacity Analysis Module:
Vol/Sat: 0.06 0.06 0.06 0.13 0.13 0.08 0.14 0.30 0.30 0.02 0.35 0.21
Crit Moves: ****
Green/Cycle: 0.08 0.08 0.08 0.19 0.19 0.19 0.20 0.59 0.59 0.10 0.49 0.49
Volume/Cap: 0.72 0.72 0.72 0.72 0.72 0.45 0.72 0.51 0.51 0.15 0.72 0.42
Uniform Del: 36.0 36.0 36.0 30.6 30.6 28.9 30.1 9.7 9.7 33.0 16.1 13.1
IncrementDel: 16.6 17.1 17.1 3.8 3.8 1.1 7.1 0.2 0.2 0.4 1.5 0.4
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 52.6 53.1 53.1 34.3 34.3 30.0 37.2 9.9 9.9 33.4 17.5 13.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 52.6 53.1 53.1 34.3 34.3 30.0 37.2 9.9 9.9 33.4 17.5 13.5
LOS by Move: D D D C C C D A A C B B
HCM2kAvgQ: 4 4 4 7 7 3 7 8 8 1 14 5

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

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

Intersection #6 Bay Rd. & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.623
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 14.3
Optimal Cycle: 28 Level Of Service: B

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

Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 57 8 180 55 31 3 5 819 90 200 891 47
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.81 0.81 0.81 0.69 0.69 0.69 0.87 0.87 0.87 0.93 0.93 0.93

Capacity Analysis Module:
Vol/Sat: 0.17 0.17 0.17 0.07 0.07 0.07 0.31 0.31 0.31 0.12 0.38 0.38
Crit Moves: ****
Green/Cycle: 0.27 0.27 0.27 0.27 0.27 0.27 0.49 0.49 0.49 0.19 0.68 0.68

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)
Cycle (sec): 110 Critical Vol./Cap. (X): 0.952
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 38.5
Optimal Cycle: 149 Level Of Service: D

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

Volume Module: >> Count Date: 18 Nov 2009 << 5:00 - 6:00 p.m.
Base Vol: 0 426 548 408 269 0 0 0 0 515 0 447
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 0.85 0.95 1.00 1.00 1.00 1.00 1.00 0.95 1.00 0.85

Capacity Analysis Module:
Vol/Sat: 0.00 0.26 0.38 0.25 0.15 0.00 0.00 0.00 0.00 0.35 0.00 0.46
Crit Moves: ****
Green/Cycle: 0.00 0.28 0.65 0.26 0.54 0.00 0.00 0.00 0.00 0.37 0.00 0.63

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.179
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 107.1
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 4:45 - 5:45 PM
Base Vol: 362 664 1 0 2199 108 36 13 1424 44 105 8
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.03 0.83 0.90 1.03 0.83 0.92 0.92 0.88 0.93 0.93 0.83

Capacity Analysis Module:
Vol/Sat: 0.22 0.16 0.00 0.01 0.42 0.07 0.02 0.03 0.44 0.21 0.14 0.12
Crit Moves: ****
Green/Cycle: 0.19 0.44 0.62 0.10 0.36 0.36 0.19 0.19 0.38 0.17 0.17 0.28

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.716
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 23.1
Optimal Cycle: 61 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 7 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 129 6 49 73 5 73 130 1351 5 20 553 67
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.62 0.62 0.62 0.73 0.73 0.73 0.93 0.93 0.93 0.93 0.92 0.92

Capacity Analysis Module:
Vol/Sat: 0.16 0.16 0.16 0.12 0.12 0.12 0.08 0.43 0.43 0.01 0.41 0.41
Crit Moves: ****
Green/Cycle: 0.23 0.23 0.23 0.23 0.23 0.23 0.11 0.62 0.62 0.06 0.57 0.57

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

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

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.696
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.6
Optimal Cycle: 58 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include, Include, Include), Min. Green (0, 5, 5, 0), Lanes (0, 0, 1, 1).

Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 0 0 0 10 0 122 98 1457 0 0 800 22
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 0 0 0 10 0 127 102 1515 0 0 832 23
Added Vol: 0 0 0 14 0 10 10 91 0 0 684 104
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 24 0 137 112 1606 0 0 1516 127
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: 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 Volume: 0 0 0 24 0 137 112 1606 0 0 1516 127
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 24 0 137 112 1606 0 0 1516 127
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 24 0 137 112 1606 0 0 1516 127

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.86 1.00 0.86 0.93 0.93 1.00 1.00 0.92 0.92
Lanes: 0.00 0.00 0.00 0.15 0.00 0.85 1.00 2.00 0.00 0.00 1.85 0.15
Final Sat.: 0 0 0 248 0 1389 1769 3538 0 0 3225 270

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.10 0.00 0.10 0.06 0.45 0.00 0.00 0.47 0.47
Crit Moves: *****
Green/Cycle: 0.00 0.00 0.00 0.14 0.00 0.14 0.09 0.77 0.00 0.00 0.68 0.68
Volume/Cap: 0.00 0.00 0.00 0.70 0.00 0.70 0.70 0.59 0.00 0.00 0.70 0.70
Uniform Del: 0.0 0.0 0.0 49.0 0.0 49.0 52.9 6.0 0.0 0.0 11.9 11.9
IncrementDel: 0.0 0.0 0.0 8.9 0.0 8.9 12.5 0.4 0.0 0.0 0.9 0.9
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Delay/Veh: 0.0 0.0 0.0 57.9 0.0 57.9 65.4 6.3 0.0 0.0 12.8 12.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 57.9 0.0 57.9 65.4 6.3 0.0 0.0 12.8 12.8
LOS by Move: A A A E A E E A A A B B
HCM2kAvgQ: 0 0 0 7 0 7 5 13 0 0 20 20

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

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

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.600
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 9.1
Optimal Cycle: 47 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include, Include, Include), Min. Green (5, 0, 5, 5), Lanes (1, 0, 1, 0).

Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 120 0 35 0 0 0 0 1413 204 73 888 0
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 125 0 36 0 0 0 0 1470 212 76 924 0
Added Vol: 4 0 0 0 0 0 0 100 11 0 694 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 129 0 36 0 0 0 0 1570 223 76 1618 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: 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 Volume: 129 0 36 0 0 0 0 1570 223 76 1618 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 129 0 36 0 0 0 0 1570 223 76 1618 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: 129 0 36 0 0 0 0 1570 223 76 1618 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.91 1.00 0.91 1.00 1.00 1.00 1.00 0.93 0.83 0.93 0.93 1.00
Lanes: 1.64 0.00 0.36 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 2839 0 625 0 0 0 0 3538 1583 1769 3538 0

Capacity Analysis Module:
Vol/Sat: 0.05 0.00 0.06 0.00 0.00 0.00 0.00 0.44 0.14 0.04 0.46 0.00
Crit Moves: *****
Green/Cycle: 0.10 0.00 0.10 0.00 0.00 0.00 0.00 0.74 0.74 0.07 0.81 0.00
Volume/Cap: 0.47 0.00 0.60 0.00 0.00 0.00 0.00 0.60 0.19 0.60 0.56 0.00
Uniform Del: 51.2 0.0 51.9 0.0 0.0 0.0 0.0 7.3 4.7 54.0 3.9 0.0
IncrementDel: 1.0 0.0 3.6 0.0 0.0 0.0 0.0 0.4 0.1 7.8 0.3 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00 0.00
Delay/Veh: 52.2 0.0 55.6 0.0 0.0 0.0 0.0 7.7 4.8 61.8 4.2 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 52.2 0.0 55.6 0.0 0.0 0.0 0.0 7.7 4.8 61.8 4.2 0.0
LOS by Move: D A E A A A A A E A A
HCM2kAvgQ: 3 0 5 0 0 0 0 14 2 4 11 0

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.992
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 44.9
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Ovl, Include), Min. Green (5, 5, 5, 5), Lanes (2, 0, 1, 0, 1, 1, 0, 2, 1, 0, 1, 0, 1, 1, 0)

Volume Module: >> Count Date: 7 Oct 2009 << 4:45 - 5:45 PM
Base Vol: 248 170 55 38 166 219 323 1436 339 102 975 34
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 258 177 57 40 173 228 336 1493 353 106 1014 35
Added Vol: 0 0 0 0 0 0 9 6 111 0 0 699 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 258 177 57 40 173 237 342 1604 353 106 1713 35
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: 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 Volume: 258 177 57 40 173 237 342 1604 353 106 1713 35
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 258 177 57 40 173 237 342 1604 353 106 1713 35
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 258 177 57 40 173 237 342 1604 353 106 1713 35

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.98 0.83 0.93 0.98 0.83 0.93 0.87 0.87 0.93 0.93 0.93
Lanes: 2.00 1.00 1.00 1.00 1.00 1.00 1.00 2.46 0.54 1.00 1.96 0.04
Final Sat.: 3432 1862 1583 1769 1862 1583 1769 4055 891 1769 3456 71

Capacity Analysis Module:
Vol/Sat: 0.08 0.09 0.04 0.02 0.09 0.15 0.19 0.40 0.40 0.06 0.50 0.50
Crit Moves: ****
Green/Cycle: 0.10 0.10 0.19 0.09 0.09 0.29 0.19 0.60 0.60 0.09 0.50 0.50
Volume/Cap: 0.79 0.99 0.19 0.24 0.99 0.52 0.99 0.66 0.66 0.66 0.99 0.99
Uniform Del: 53.1 54.2 41.1 50.4 54.4 35.7 48.2 15.7 15.7 52.7 29.8 29.8
IncrementDel: 11.8 65.1 0.3 0.8 65.9 1.1 46.3 0.5 0.5 9.4 19.6 19.6
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 64.9 119 41.5 51.2 120 36.8 94.6 16.2 16.2 62.1 49.4 49.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 64.9 119 41.5 51.2 120 36.8 94.6 16.2 16.2 62.1 49.4 49.4
LOS by Move: E F D D F D F B B E D D
HCM2kAvgQ: 7 11 2 2 10 8 18 18 18 5 41 41

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.783
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 20.8
Optimal Cycle: 68 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include), Min. Green (0, 0, 0, 5, 5, 5, 5, 0, 0, 5, 5), Lanes (0, 0, 0, 0, 0, 1, 0, 0, 0, 1, 1, 0, 2, 0, 0, 0, 0, 2, 0, 1)

Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 0 0 0 416 0 54 40 1436 0 0 1061 255
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 0 0 0 433 0 56 42 1493 0 0 1103 265
Added Vol: 0 0 0 4 0 0 0 64 0 0 197 7
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 437 0 56 42 1557 0 0 1300 272
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: 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 Volume: 0 0 0 437 0 56 42 1557 0 0 1300 272
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 437 0 56 42 1557 0 0 1300 272
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 0 0 437 0 56 42 1557 0 0 1300 272

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.93 1.00 0.83 0.93 0.93 1.00 1.00 0.93 0.83
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 0 0 0 1769 0 1583 1769 3538 0 0 3538 1583

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.25 0.00 0.04 0.02 0.44 0.00 0.00 0.37 0.17
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.32 0.00 0.32 0.07 0.56 0.00 0.00 0.49 0.49
Volume/Cap: 0.00 0.00 0.00 0.78 0.00 0.11 0.32 0.78 0.00 0.00 0.75 0.35
Uniform Del: 0.0 0.0 0.0 28.0 0.0 21.9 39.5 15.4 0.0 0.0 18.6 14.2
IncrementDel: 0.0 0.0 0.0 7.1 0.0 0.1 1.4 2.1 0.0 0.0 1.9 0.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Delay/Veh: 0.0 0.0 0.0 35.1 0.0 22.0 40.9 17.5 0.0 0.0 20.5 14.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 35.1 0.0 22.0 40.9 17.5 0.0 0.0 20.5 14.5
LOS by Move: A A A D A C D B A A C B
HCM2kAvgQ: 0 0 0 13 0 1 1 19 0 0 17 5

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

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

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.782
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 16.5
Optimal Cycle: 59 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.796
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 11.6
Optimal Cycle: 61 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.741
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 11.3
Optimal Cycle: 51 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 volume categories (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with 12 columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ for Capacity Analysis Module.

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

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

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.386
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 169.2
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 volume categories (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with 12 columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ for Capacity Analysis Module.

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

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

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 150 Critical Vol./Cap. (X): 1.419
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 192.8
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 377 968 0 0 3488 127 60 0 1667 0 0 0 0
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 392 1007 0 0 3628 132 62 0 1734 0 0 0 0
Added Vol: 4 105 0 0 396 98 12 0 11 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 396 1112 0 0 4024 230 74 0 1745 0 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: 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 Volume: 396 1112 0 0 4024 230 74 0 1745 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 396 1112 0 0 4024 230 74 0 1745 0 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: 396 1112 0 0 4024 230 74 0 1745 0 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.89 1.00 1.00 0.89 0.83 0.90 1.00 0.73 1.00 1.00 1.00
Lanes: 2.00 3.00 0.00 0.00 3.00 1.00 2.00 0.00 3.00 0.00 0.00 0.00
Final Sat.: 3432 5083 0 0 5083 1583 3432 0 4178 0 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.12 0.22 0.00 0.00 0.79 0.15 0.02 0.00 0.42 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.08 0.64 0.00 0.00 0.56 0.56 0.29 0.00 0.29 0.00 0.00 0.00
Volume/Cap: 1.42 0.34 0.00 0.00 1.42 0.26 0.07 0.00 1.42 0.00 0.00 0.00
Uniform Del: 68.9 12.5 0.0 0.0 33.2 17.2 38.2 0.0 52.9 0.0 0.0 0.0
IncrementDel: 208.4 0.1 0.0 0.0 191 0.2 0.0 0.0 193.4 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00
Delay/Veh: 277.3 12.6 0.0 0.0 224 17.3 38.2 0.0 246.4 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: 277.3 12.6 0.0 0.0 224 17.3 38.2 0.0 246.4 0.0 0.0 0.0
LOS by Move: F B A A F B D A F A A A
HCM2kAvgQ: 19 8 0 0 119 5 1 0 55 0 0 0 0

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

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

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 0.705
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.3
Optimal Cycle: 55 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 0 0 0 120 0 99 20 1599 0 0 454 16
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 0 0 0 125 0 103 21 1663 0 0 472 17
Added Vol: 0 0 0 11 0 0 0 12 0 0 98 4
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 136 0 103 21 1675 0 0 570 21
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: 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 Volume: 0 0 0 136 0 103 21 1675 0 0 570 21
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 136 0 103 21 1675 0 0 570 21
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 0 0 136 0 103 21 1675 0 0 570 21

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.90 1.00 0.90 0.93 0.93 1.00 1.00 0.93 0.93
Lanes: 0.00 0.00 0.00 0.57 0.00 0.43 1.00 2.00 0.00 0.00 1.93 0.07
Final Sat.: 0 0 0 970 0 735 1769 3538 0 0 3397 123

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.14 0.00 0.14 0.01 0.47 0.00 0.00 0.17 0.17
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.20 0.00 0.20 0.17 0.67 0.00 0.00 0.50 0.50
Volume/Cap: 0.00 0.00 0.00 0.70 0.00 0.70 0.07 0.70 0.00 0.00 0.34 0.34
Uniform Del: 0.0 0.0 0.0 31.7 0.0 31.7 29.3 8.7 0.0 0.0 12.9 12.9
IncrementDel: 0.0 0.0 0.0 6.6 0.0 6.6 0.1 1.0 0.0 0.0 0.1 0.1
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Delay/Veh: 0.0 0.0 0.0 38.3 0.0 38.3 29.4 9.7 0.0 0.0 13.0 13.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 38.3 0.0 38.3 29.4 9.7 0.0 0.0 13.0 13.0
LOS by Move: A A A D A D C A A B B
HCM2kAvgQ: 0 0 0 7 0 7 0 15 0 0 5 5

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

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

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap. (X): 0.672
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 16.0
Optimal Cycle: 85 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module:

Table with 12 columns for saturation flow metrics: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis metrics: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap. (X): 0.841
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 33.8
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module:

Table with 12 columns for saturation flow metrics: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis metrics: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap. (X): 0.706
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 22.7
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Protected, Permitted), Rights (Include, Include).

Volume Module:
Base Vol: 78 109 59 17 76 27 29 1264 78 44 793 17
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 81 113 61 18 79 28 30 1315 81 46 825 18
Added Vol: 0 0 0 0 0 0 0 0 12 0 0 98 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 81 113 61 18 79 28 30 1327 81 46 923 18
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: 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 Volume: 81 113 61 18 79 28 30 1327 81 46 923 18
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 81 113 61 18 79 28 30 1327 81 46 923 18
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: 81 113 61 18 79 28 30 1327 81 46 923 18

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 0.95 0.96 0.96 0.96 0.95 0.94 0.94 0.95 0.95 0.95
Lanes: 0.32 0.44 0.24 0.14 0.63 0.23 1.00 1.88 0.12 1.00 1.96 0.04
Final Sat.: 574 802 434 259 1159 412 1805 3371 206 1805 3532 68

Capacity Analysis Module:
Vol/Sat: 0.14 0.14 0.14 0.07 0.07 0.07 0.02 0.39 0.39 0.03 0.26 0.26
Crit Moves: ****
Green/Cycle: 0.20 0.20 0.20 0.09 0.09 0.09 0.10 0.55 0.55 0.05 0.50 0.50
Volume/Cap: 0.72 0.72 0.72 0.72 0.72 0.72 0.17 0.72 0.72 0.51 0.52 0.52
Uniform Del: 37.6 37.6 37.6 43.9 43.9 43.9 41.5 16.8 16.8 46.3 16.8 16.8
IncrementDel: 6.9 6.9 6.9 13.5 13.5 13.5 0.5 1.3 1.3 4.6 0.3 0.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 44.4 44.4 44.4 57.4 57.4 57.4 42.0 18.1 18.1 50.9 17.1 17.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 44.4 44.4 44.4 57.4 57.4 57.4 42.0 18.1 18.1 50.9 17.1 17.1
LOS by Move: D D D E E E D B B D B B
HCM2kAvgQ: 9 9 9 5 5 5 1 18 18 2 10 10

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

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

Intersection #23 University & Bell

Cycle (sec): 90 Critical Vol./Cap. (X): 0.553
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 7.6
Optimal Cycle: 86 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Permitted, Permitted), Rights (Include, Include).

Volume Module:
Base Vol: 60 83 38 11 68 22 42 1322 87 37 787 22
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 62 86 40 11 71 23 44 1375 90 38 818 23
Added Vol: 0 0 0 0 0 0 0 0 12 0 0 98 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 62 86 40 11 71 23 44 1387 90 38 916 23
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: 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 Volume: 62 86 40 11 71 23 44 1387 90 38 916 23
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 62 86 40 11 71 23 44 1387 90 38 916 23
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: 62 86 40 11 71 23 44 1387 90 38 916 23

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.86 0.86 0.86 0.94 0.94 0.94 0.28 0.94 0.94 0.14 0.95 0.95
Lanes: 0.33 0.46 0.21 0.11 0.67 0.22 1.00 1.88 0.12 1.00 1.95 0.05
Final Sat.: 539 746 342 195 1205 390 524 3358 219 260 3508 88

Capacity Analysis Module:
Vol/Sat: 0.12 0.12 0.12 0.06 0.06 0.06 0.08 0.41 0.41 0.15 0.26 0.26
Crit Moves: ****
Green/Cycle: 0.21 0.21 0.21 0.21 0.21 0.21 0.75 0.75 0.75 0.75 0.75 0.75
Volume/Cap: 0.55 0.55 0.55 0.28 0.28 0.28 0.11 0.55 0.55 0.20 0.35 0.35
Uniform Del: 31.8 31.8 31.8 29.9 29.9 29.9 3.2 4.9 4.9 3.4 3.9 3.9
IncrementDel: 2.0 2.0 2.0 0.4 0.4 0.4 0.1 0.3 0.3 0.5 0.1 0.1
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 33.8 33.8 33.8 30.3 30.3 30.3 3.3 5.2 5.2 3.9 4.0 4.0
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: 33.8 33.8 33.8 30.3 30.3 30.3 3.3 5.2 5.2 3.9 4.0 4.0
LOS by Move: C C C C C C A A A A A A
HCM2kAvgQ: 5 5 5 3 3 3 0 10 10 1 5 5

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

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

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap. (X): 0.879
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 37.1
Optimal Cycle: 98 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 12 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

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

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

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 90 Critical Vol./Cap. (X): 0.487
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 21.3
Optimal Cycle: 82 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 12 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

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

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

Intersection #26 University & SB US 101

Cycle (sec): 90 Critical Vol./Cap. (X): 0.545
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 25.3
Optimal Cycle: 151 Level Of Service: C

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

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #27 University Ave. & Woodland

Cycle (sec): 110 Critical Vol./Cap. (X): 0.901
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 47.3
Optimal Cycle: 113 Level Of Service: D

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

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.624
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 34.4
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.118
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 81.6
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module:5:00 - 6:00 AM, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #30 Bayfront Exp. & Chilco St.
Cycle (sec): 130 Critical Vol./Cap. (X): 0.717
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 18.1
Optimal Cycle: 56 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #31 Middlefield Rd. & Ravenswood Ave.
Cycle (sec): 120 Critical Vol./Cap. (X): 0.764
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 26.7
Optimal Cycle: 44 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.653
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 29.2
Optimal Cycle: 31 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 21 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 49 761 127 356 628 36 75 76 62 73 8 266
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 51 791 132 370 653 37 78 79 64 76 8 277
Added Vol: 0 68 0 2 23 0 0 0 0 0 0 0 5
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 51 859 132 372 676 37 78 79 64 76 8 282
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: 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 Volume: 51 859 132 372 676 37 78 79 64 76 8 282
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 51 859 132 372 676 37 78 79 64 76 8 282
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: 51 859 132 372 676 37 78 79 64 76 8 282

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.93 0.83 0.93 0.93 0.83 0.63 0.91 0.91 0.64 0.64 0.83
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.55 0.45 0.90 0.10 1.00
Final Sat.: 1769 3538 1583 1769 3538 1583 1188 957 781 1091 120 1583

Capacity Analysis Module:
Vol/Sat: 0.03 0.24 0.08 0.21 0.19 0.02 0.07 0.08 0.08 0.07 0.07 0.18
Crit Moves: ****
Green/Cycle: 0.10 0.37 0.37 0.32 0.59 0.59 0.27 0.27 0.27 0.27 0.27 0.27
Volume/Cap: 0.28 0.65 0.22 0.65 0.32 0.04 0.24 0.30 0.30 0.26 0.26 0.65
Uniform Del: 49.7 31.3 25.8 34.9 12.4 10.3 34.0 34.6 34.6 34.1 34.1 38.6
IncrementDel: 0.8 1.2 0.2 2.7 0.1 0.0 0.4 0.4 0.4 0.4 0.4 3.6
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 50.5 32.4 26.0 37.6 12.5 10.3 34.4 35.0 35.0 34.5 34.5 42.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 50.5 32.4 26.0 37.6 12.5 10.3 34.4 35.0 35.0 34.5 34.5 42.2
LOS by Move: D C C D B B C C C C D
HCM2kAvgQ: 2 14 3 12 6 1 2 4 4 3 3 10

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

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

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 110 Critical Vol./Cap. (X): 0.791
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 41.0
Optimal Cycle: 85 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module:
Base Vol: 89 457 24 24 508 163 419 135 78 7 55 12
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 93 475 25 25 528 170 436 140 81 7 57 12
Added Vol: 0 53 0 0 136 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 93 528 25 25 664 170 436 140 81 7 57 12
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: 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 Volume: 93 528 25 25 664 170 436 140 81 7 57 12
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 93 528 25 25 664 170 436 140 81 7 57 12
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: 93 528 25 25 664 170 436 140 81 7 57 12

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.94 0.94 0.94 0.92 0.92 0.92 0.95 0.95 0.95 0.97 0.97 0.97
Lanes: 0.29 1.63 0.08 0.06 1.55 0.39 1.50 0.32 0.18 0.09 0.75 0.16
Final Sat.: 511 2915 138 102 2706 691 2702 577 333 175 1374 300

Capacity Analysis Module:
Vol/Sat: 0.18 0.18 0.18 0.25 0.25 0.25 0.16 0.24 0.24 0.04 0.04 0.04
Crit Moves: ****
Green/Cycle: 0.23 0.23 0.23 0.31 0.31 0.31 0.31 0.31 0.31 0.05 0.05 0.05
Volume/Cap: 0.79 0.79 0.79 0.79 0.79 0.79 0.52 0.79 0.79 0.79 0.79 0.79
Uniform Del: 39.9 39.9 39.9 34.7 34.7 34.7 31.4 34.8 34.8 51.5 51.5 51.5
IncrementDel: 5.3 5.3 5.3 4.0 4.0 4.0 0.4 5.2 5.2 34.2 34.2 34.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 45.2 45.2 45.2 38.7 38.7 38.7 31.8 40.0 40.0 85.7 85.7 85.7
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: 45.2 45.2 45.2 38.7 38.7 38.7 31.8 40.0 40.0 85.7 85.7 85.7
LOS by Move: D D D D D D C D D F F F
HCM2kAvgQ: 13 13 13 16 16 16 8 15 15 4 4 4

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

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

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec): 100 Critical Vol./Cap. (X): 0.574
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 1.4
Optimal Cycle: 90 Level Of Service: A

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

Volume Module: Table with 12 columns representing different traffic directions and various volume metrics like Base Vol, Growth Adj, etc.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for various performance metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

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

 Scenario Report
 Scenario: Near Term 2018 East Campus Only AM

Command: Near Term II No Project AM
 Volume: Near Term II No Project AM
 Geometry: Near Term II No Project AM
 Impact Fee: Default Impact Fee
 Trip Generation: Near Term II No Project AM
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Near Term II No Project AM

 Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Bayfront Exp. & Marsh Rd.	C	23.1 0.790	C	23.4 0.829	+ 0.374 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	16.2 0.657	D	46.7 1.075	+30.480 D/V
# 3 US 101 SB Ramps & Marsh Rd.	C	22.5 0.886	C	25.6 0.910	+ 3.175 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	C	30.8 0.845	C	26.6 0.869	-4.248 D/V
# 5 Bohannon/ Florence & Marsh Rd.	B	19.9 0.582	B	15.1 0.602	-4.804 D/V
# 6 Bay Rd. & Marsh Rd.	B	16.7 0.603	B	16.7 0.691	-0.002 D/V
# 7 Middlefield at Marsh (Town of	C	27.1 0.628	C	26.9 0.754	-0.194 D/V
# 8 Bayfront Exp. & Willow Rd.	C	27.8 0.627	D	46.1 0.900	+18.223 D/V
# 9 Hamilton Ave. & Willow Rd.	C	23.1 0.575	C	20.7 0.602	-2.412 D/V
# 10 Ivy Dr. & Willow Rd.	B	18.2 0.532	C	22.9 0.649	+ 4.768 D/V
# 11 O'Brien Dr. & Willow Rd.	B	15.1 0.477	B	13.4 0.617	-1.643 D/V
# 12 Newbridge St. & Willow Rd.	D	51.0 0.929	D	52.2 0.963	+ 1.121 D/V
# 13 Bay Rd. & Willow Rd.	C	20.4 0.714	C	20.5 0.785	+ 0.104 D/V
# 14 Durham St. & Willow Rd.	C	27.5 0.734	B	12.9 0.764	-14.559 D/V
# 15 Coleman Ave. & Willow Rd.	B	13.6 0.735	B	15.9 0.845	+ 2.339 D/V
# 16 Gilbert Ave. & Willow Rd.	B	14.5 0.682	B	16.5 0.817	+ 2.041 D/V
# 17 Middlefield Rd. & Willow Rd.	F	105.0 0.974	F	107.5 1.161	+ 2.504 D/V
# 18 Bayfront Exp. & University Ave	C	30.1 0.828	C	31.8 0.857	+ 1.732 D/V
# 19 O'Brien Dr. & University Ave.	A	6.5 0.563	A	6.4 0.571	-0.133 D/V
# 20 University & Kavanaugh	B	14.0 0.580	B	13.7 0.582	-0.259 D/V
# 21 University & Bay	C	27.9 0.660	C	27.4 0.662	-0.474 D/V
# 22 University & Runnymede	C	20.7 0.645	C	20.5 0.648	-0.229 D/V
# 23 University & Bell	A	7.7 0.253	A	7.2 0.284	-0.440 D/V
# 24 University & Donohoe	D	42.1 0.952	D	43.4 0.965	+ 1.356 D/V
# 25 NB 101 & Donohoe St	B	9.0 0.393	B	9.2 0.411	+ 0.155 D/V

Intersection		Base		Future		Change in
		Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C	
# 26 University & SB US 101	B	17.4	0.661	B 17.7	0.664	+ 0.346 D/V
# 27 University Ave. & Woodland	D	41.3	0.917	D 41.5	0.921	+ 0.280 D/V
# 28 Middlefield Rd. & University A	D	35.3	0.755	D 40.7	0.836	+ 5.471 D/V
# 29 Bayfront Exp. & Chrysler Dr.	A	7.4	0.601	B 17.2	0.700	+ 9.780 D/V
# 30 Bayfront Exp. & Chilco St.	B	17.2	0.610	B 19.4	0.637	+ 2.189 D/V
# 31 Middlefield Rd. & Ravenswood A	C	22.4	0.623	C 23.6	0.670	+ 1.211 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	28.7	0.484	C 25.4	0.492	-3.245 D/V
# 33 Middlefield Rd and Lytton Ave	C	30.4	0.612	C 31.9	0.665	+ 1.492 D/V
# 34 Bayfront Expy. and Facebook We	A	1.3	0.515	A 1.4	0.562	+ 0.111 D/V

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

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.829
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 23.4
Optimal Cycle: 92 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	3	0	0	1	0	1	0	1	0	0	2	0

Volume Module: >> Count Date: 22 Oct 2009 << 7:45 - 8:45 AM

Base Vol:	2297	189	23	7	58	148	182	20	997	7	19	5
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	2458	202	25	7	62	158	195	21	1067	7	20	5
Added Vol:	183	0	0	0	0	0	0	0	442	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2641	202	25	7	62	158	195	21	1509	7	20	5
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:	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 Volume:	2641	202	25	7	62	158	195	21	1509	7	20	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2641	202	25	7	62	158	195	21	1509	7	20	5
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:	2641	202	25	7	62	158	195	21	1509	7	20	5

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.96	0.96	0.93	0.93	0.83	0.94	0.94	0.73	0.95	0.95	0.95
Lanes:	3.00	0.89	0.11	0.22	1.78	1.00	0.90	0.10	2.00	0.23	0.61	0.16
Final Sat.:	5147	1633	199	379	3141	1583	1606	176	2786	407	1104	290

Capacity Analysis Module:

Vol/Sat:	0.51	0.12	0.12	0.02	0.02	0.10	0.12	0.12	0.54	0.02	0.02	0.02
Crit Moves:	****					****	****			****		
Green/Cycle:	0.61	0.61	0.61	0.12	0.12	0.12	0.14	0.14	0.75	0.04	0.04	0.04
Volume/Cap:	0.84	0.20	0.20	0.17	0.17	0.84	0.84	0.84	0.72	0.48	0.48	0.48
Uniform Del:	20.6	11.4	11.4	51.5	51.5	56.1	54.3	54.3	8.8	61.2	61.2	61.2
IncrementDel:	2.3	0.1	0.1	0.2	0.2	28.0	21.9	21.9	1.3	5.1	5.1	5.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	22.9	11.5	11.5	51.7	51.7	84.2	76.2	76.2	10.1	66.4	66.4	66.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.9	11.5	11.5	51.7	51.7	84.2	76.2	76.2	10.1	66.4	66.4	66.4
LOS by Move:	C	B	B	D	D	F	E	E	B	E	E	E
HCM2kAvgQ:	31	4	4	1	1	9	11	11	19	2	2	2

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 1.075
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 46.7
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Permitted), Rights (Include, Ignore), and Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM
Base Vol: 818 0 289 0 0 0 0 1138 506 0 821 1699
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.00 0.83 1.00 1.00 1.00 0.89 0.89 1.00 1.00 0.93 1.00

Capacity Analysis Module:
Vol/Sat: 0.26 0.00 0.44 0.00 0.00 0.00 0.54 0.54 0.00 0.00 0.29 0.00
Crit Moves: ****
Green/Cycle: 0.41 0.00 0.41 0.00 0.00 0.00 0.50 0.50 0.00 0.00 0.50 0.00

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.910
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 25.6
Optimal Cycle: 93 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Permitted), Rights (Include, Ignore), and Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM
Base Vol: 0 0 0 879 0 558 0 834 583 0 1426 86
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.90 1.00 0.83 1.00 0.93 1.00 1.00 0.93 1.00

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.37 0.00 0.38 0.00 0.33 0.00 0.00 0.45 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.42 0.00 0.42 0.00 0.49 0.00 0.00 0.49 0.00

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.869
Loss Time (sec): 14 (Y+R=4.0 sec) Average Delay (sec/veh): 26.6
Optimal Cycle: 90 Level Of Service: C

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

Table with columns for Volume Module, Count, and Date. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with columns for Sat/Lane and Adjustment. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.602
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.1
Optimal Cycle: 27 Level Of Service: B

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

Table with columns for Volume Module, Count, and Date. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with columns for Sat/Lane and Adjustment. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #6 Bay Rd. & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.691
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 16.7
Optimal Cycle: 34 Level Of Service: B

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

Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 70 3 177 112 28 5 2 665 66 264 982 22
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.79 0.79 0.79 0.53 0.53 0.53 0.88 0.88 0.88 0.93 0.93 0.93

Capacity Analysis Module:
Vol/Sat: 0.18 0.18 0.18 0.15 0.15 0.15 0.32 0.32 0.32 0.16 0.32 0.32
Crit Moves: ****
Green/Cycle: 0.26 0.26 0.26 0.26 0.26 0.26 0.46 0.46 0.46 0.23 0.69 0.69

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)
Cycle (sec): 110 Critical Vol./Cap. (X): 0.754
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 26.9
Optimal Cycle: 64 Level Of Service: C

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

Volume Module: >> Count Date: 18 Nov 2009 << 7:15-8:15 a.m.
Base Vol: 0 166 397 342 367 0 0 0 0 463 0 169
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 0.85 0.95 1.00 1.00 1.00 1.00 1.00 0.95 1.00 0.85

Capacity Analysis Module:
Vol/Sat: 0.00 0.10 0.33 0.30 0.24 0.00 0.00 0.00 0.00 0.29 0.00 0.14
Crit Moves: ****
Green/Cycle: 0.00 0.13 0.51 0.40 0.53 0.00 0.00 0.00 0.00 0.38 0.00 0.78

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.900
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 46.1
Optimal Cycle: 124 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Split Phase), and Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 7:45 - 8:45 AM
Base Vol: 1034 2108 6 13 677 92 84 34 379 3 6 5
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.03 0.83 0.90 1.03 0.83 0.93 0.93 0.88 0.93 0.93 0.83

Capacity Analysis Module:
Vol/Sat: 0.33 0.42 0.02 0.13 0.13 0.06 0.05 0.25 0.12 0.02 0.01 0.01
Crit Moves: ****
Green/Cycle: 0.43 0.46 0.49 0.14 0.17 0.17 0.27 0.27 0.27 0.04 0.04 0.04

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.602
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 20.7
Optimal Cycle: 48 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Protected), and Lanes.

Volume Module: >> Count Date: 7 Oct 2009 << 8:00 am - 9:00 am
Base Vol: 18 13 26 71 19 72 115 415 52 56 1037 74
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.83 0.83 0.83 0.78 0.78 0.78 0.93 0.93 0.93 0.93 0.92 0.92

Capacity Analysis Module:
Vol/Sat: 0.04 0.04 0.04 0.12 0.12 0.12 0.07 0.38 0.38 0.03 0.36 0.36
Crit Moves: ****
Green/Cycle: 0.20 0.20 0.20 0.20 0.20 0.20 0.12 0.65 0.65 0.07 0.59 0.59

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

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

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.649
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 22.9
Optimal Cycle: 53 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Count, Date, Time. Rows for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat. Rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.617
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.4
Optimal Cycle: 49 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Count, Date, Time. Rows for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat. Rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.963
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 52.2
Optimal Cycle: 180 Level Of Service: D

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

Table with columns: Volume Module, Count, Date (7 Oct 2009), Time (7:30 AM to 8:30 AM), Base Vol., Growth Adj., Initial Bse., Added Vol., PasserByVol., Initial Fut., User Adj., PHF Adj., PHF Volume, Reduct Vol., Reduced Vol., PCE Adj., MLF Adj., FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.785
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 20.5
Optimal Cycle: 71 Level Of Service: C

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

Table with columns: Volume Module, Count, Date (6 Oct 2009), Time (7:30 - 8:30 AM), Base Vol., Growth Adj., Initial Bse., Added Vol., PasserByVol., Initial Fut., User Adj., PHF Adj., PHF Volume, Reduct Vol., Reduced Vol., PCE Adj., MLF Adj., FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.764
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 12.9
Optimal Cycle: 55 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Table with columns: Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.845
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 15.9
Optimal Cycle: 74 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Table with columns: Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.817
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 16.5
Optimal Cycle: 66 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 time slots. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.161
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 107.5
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 time slots. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 160 Critical Vol./Cap. (X): 0.857
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 31.8
Optimal Cycle: 102 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 traffic flow metrics. Includes rows for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. Includes rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 0.571
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 6.4
Optimal Cycle: 43 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 traffic flow metrics. Includes rows for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. Includes rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap. (X): 0.582
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.7
Optimal Cycle: 85 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Protected, Include), and Lanes (0, 0, 1, 0, 0).

Volume Module: Table with 12 columns for volume and 12 rows for various metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 12 columns for Sat/Lane and 4 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat and 14 rows for various capacity metrics like Crit Moves, Green/Cycle, etc.

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

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

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap. (X): 0.662
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 27.4
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Protected, Include), and Lanes (1, 0, 1, 0, 1).

Volume Module: Table with 12 columns for volume and 12 rows for various metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 12 columns for Sat/Lane and 4 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat and 14 rows for various capacity metrics like Crit Moves, Green/Cycle, etc.

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

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

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap. (X): 0.648
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 20.5
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Protected, Permitted), Rights (Include, Include, Include).

Volume Module:
Base Vol: 47 105 12 16 59 56 18 626 48 88 1246 61
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 50 112 13 17 63 60 19 670 51 94 1333 65
Added Vol: 0 0 0 0 0 0 0 0 109 0 0 8 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 50 112 13 17 63 60 19 779 51 94 1341 65
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: 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 Volume: 50 112 13 17 63 60 19 779 51 94 1341 65
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 50 112 13 17 63 60 19 779 51 94 1341 65
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 50 112 13 17 63 60 19 779 51 94 1341 65

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.98 0.98 0.98 0.94 0.94 0.94 0.95 0.94 0.94 0.95 0.94 0.94
Lanes: 0.29 0.64 0.07 0.12 0.45 0.43 1.00 1.88 0.12 1.00 1.91 0.09
Final Sat.: 532 1187 136 217 801 761 1805 3356 221 1805 3418 166

Capacity Analysis Module:
Vol/Sat: 0.09 0.09 0.09 0.08 0.08 0.08 0.01 0.23 0.23 0.05 0.39 0.39
Crit Moves: ****
Green/Cycle: 0.14 0.14 0.14 0.12 0.12 0.12 0.05 0.52 0.52 0.12 0.58 0.58
Volume/Cap: 0.67 0.67 0.67 0.67 0.67 0.67 0.21 0.45 0.45 0.45 0.67 0.67
Uniform Del: 40.8 40.8 40.8 42.3 42.3 42.3 45.6 15.2 15.2 41.2 14.3 14.3
IncrementDel: 6.8 6.8 6.8 8.4 8.4 8.4 1.2 0.2 0.2 1.5 0.9 0.9
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 47.6 47.6 47.6 50.7 50.7 50.7 46.8 15.4 15.4 42.7 15.2 15.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 47.6 47.6 47.6 50.7 50.7 50.7 46.8 15.4 15.4 42.7 15.2 15.2
LOS by Move: D D D D D D D B B D B B
HCM2kAvgQ: 6 6 6 5 5 5 1 8 8 3 16 16

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

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

Intersection #23 University & Bell

Cycle (sec): 95 Critical Vol./Cap. (X): 0.284
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 7.2
Optimal Cycle: 91 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Permitted, Permitted, Permitted), Rights (Include, Include, Include).

Volume Module:
Base Vol: 18 59 9 7 43 11 15 614 24 15 123 24
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 19 63 10 7 46 12 16 657 26 16 132 26
Added Vol: 0 0 0 0 0 0 0 0 109 0 0 8 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 19 63 10 7 46 12 16 766 26 16 140 26
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: 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 Volume: 19 63 10 7 46 12 16 766 26 16 140 26
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 19 63 10 7 46 12 16 766 26 16 140 26
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 19 63 10 7 46 12 16 766 26 16 140 26

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.93 0.93 0.95 0.95 0.95 0.64 0.95 0.95 0.33 0.93 0.93
Lanes: 0.21 0.69 0.10 0.11 0.71 0.18 1.00 1.94 0.06 1.00 1.69 0.31
Final Sat.: 370 1212 185 207 1272 325 1218 3475 117 619 2979 548

Capacity Analysis Module:
Vol/Sat: 0.05 0.05 0.05 0.04 0.04 0.04 0.01 0.22 0.22 0.03 0.05 0.05
Crit Moves: ****
Green/Cycle: 0.18 0.18 0.18 0.18 0.18 0.18 0.77 0.77 0.77 0.77 0.77 0.77
Volume/Cap: 0.28 0.28 0.28 0.20 0.20 0.20 0.02 0.28 0.28 0.03 0.06 0.06
Uniform Del: 33.4 33.4 33.4 32.9 32.9 32.9 2.4 3.1 3.1 2.5 2.5 2.5
IncrementDel: 0.5 0.5 0.5 0.3 0.3 0.3 0.0 0.1 0.1 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 33.9 33.9 33.9 33.2 33.2 33.2 2.4 3.1 3.1 2.5 2.5 2.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 33.9 33.9 33.9 33.2 33.2 33.2 2.4 3.1 3.1 2.5 2.5 2.5
LOS by Move: C C C C C C A A A A A A
HCM2kAvgQ: 2 2 2 2 2 2 0 4 4 0 1 1

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

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

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap. (X): 0.965
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 43.4
Optimal Cycle: 152 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 65 Critical Vol./Cap. (X): 0.411
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 9.2
Optimal Cycle: 57 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue, and HCM2kAvgQ.

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

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

Intersection #26 University & SB US 101

Cycle (sec): 85 Critical Vol./Cap. (X): 0.664
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 17.7
Optimal Cycle: 108 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #27 University Ave. & Woodland

Cycle (sec): 100 Critical Vol./Cap. (X): 0.921
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 41.5
Optimal Cycle: 118 Level Of Service: D

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.836
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 40.7
Optimal Cycle: 85 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: Table with 12 columns for volume and 12 rows for various metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 12 columns for Sat/Lane and 4 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat and 12 rows for Crit Moves, Green/Cycle, Volume/Cap, etc.

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

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

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.700
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 17.2
Optimal Cycle: 53 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: Table with 12 columns for volume and 12 rows for various metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 12 columns for Sat/Lane and 4 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat and 12 rows for Crit Moves, Green/Cycle, Volume/Cap, etc.

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

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

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.637
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 19.4
Optimal Cycle: 46 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 time slots. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.670
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 23.6
Optimal Cycle: 33 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 time slots. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.492
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 25.4
Optimal Cycle: 22 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date (21 Oct 2009), and time range (7:30 - 8:30 AM). Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 100 Critical Vol./Cap. (X): 0.665
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 31.9
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date (21 Oct 2009), and time range (7:30 - 8:30 AM). Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec): 100 Critical Vol./Cap. (X): 0.562
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 1.4
Optimal Cycle: 90 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Protected), Rights (Include), Min. Green (10 10 10), and Lanes (1 0 3 0 0).

Volume Module:
Base Vol: 0 2197 0 0 782 0 0 0 0 0 0 0 0
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 0 2351 0 0 837 0 0 0 0 0 0 0 0
Added Vol: 0 216 0 0 483 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 2567 0 0 1320 0 0 0 0 0 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: 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 Volume: 0 2567 0 0 1320 0 0 0 0 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 2567 0 0 1320 0 0 0 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 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 2567 0 0 1320 0 0 0 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 0.91 1.00 0.97 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 3.00 0.00 0.00 3.00 1.00 2.00 0.00 1.00 0.00 0.00 0.00
Final Sat.: 1900 5187 0 0 5187 1900 3686 0 1900 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.49 0.00 0.00 0.25 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.88 0.00 0.00 0.88 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.56 0.00 0.00 0.29 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Uniform Del: 0.0 1.4 0.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
IncrementDel: 0.0 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 1.6 0.0 0.0 1.0 0.0 0.0 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 1.6 0.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
LOS by Move: A A A A A A A A A A A A
HCM2kAvgQ: 0 7 0 0 3 0 0 0 0 0 0 0

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

 Scenario Report
 Scenario: Near Term 2018 East Campus Only PM

Command: Near Term II No Project PM
 Volume: Near Term II No Project PM
 Geometry: Near Term II No Project PM
 Impact Fee: Default Impact Fee
 Trip Generation: Near Term II No Project PM
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Near Term II No Project PM

 Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh	Del/ LOS	V/ Veh	
# 1 Bayfront Exp. & Marsh Rd.	E	59.1 1.009	E	61.1 1.030	+ 2.080 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	15.2 0.872	C	33.4 1.046	+18.223 D/V
# 3 US 101 SB Ramps & Marsh Rd.	C	20.0 0.874	C	25.4 0.930	+ 5.386 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	C	21.5 0.733	C	21.1 0.845	-0.404 D/V
# 5 Bohannon/ Florence & Marsh Rd.	C	27.2 0.623	C	21.4 0.735	-5.794 D/V
# 6 Bay Rd. & Marsh Rd.	B	15.3 0.618	B	14.5 0.640	-0.748 D/V
# 7 Middlefield at Marsh (Town of	C	33.8 0.866	D	41.6 0.976	+ 7.806 D/V
# 8 Bayfront Exp. & Willow Rd.	D	52.6 0.981	F	115.6 1.206	+62.990 D/V
# 9 Hamilton Ave. & Willow Rd.	C	22.7 0.649	C	23.7 0.730	+ 1.076 D/V
# 10 Ivy Dr. & Willow Rd.	B	12.3 0.581	B	14.0 0.707	+ 1.620 D/V
# 11 O'Brien Dr. & Willow Rd.	B	10.0 0.584	A	9.3 0.616	-0.689 D/V
# 12 Newbridge St. & Willow Rd.	C	34.5 0.787	D	48.0 1.014	+13.523 D/V
# 13 Bay Rd. & Willow Rd.	C	20.6 0.781	C	21.4 0.805	+ 0.801 D/V
# 14 Durham St. & Willow Rd.	D	51.3 0.680	B	17.3 0.803	-33.951 D/V
# 15 Coleman Ave. & Willow Rd.	B	12.2 0.782	B	12.4 0.818	+ 0.264 D/V
# 16 Gilbert Ave. & Willow Rd.	B	12.7 0.695	B	11.8 0.760	-0.900 D/V
# 17 Middlefield Rd. & Willow Rd.	F	139.3 1.318	F	179.8 1.423	+40.497 D/V
# 18 Bayfront Exp. & University Ave	F	178.9 1.370	F	206.8 1.458	+27.896 D/V
# 19 O'Brien Dr. & University Ave.	B	13.4 0.714	B	13.7 0.725	+ 0.288 D/V
# 20 University & Kavanaugh	B	16.6 0.687	B	16.4 0.691	-0.261 D/V
# 21 University & Bay	D	35.4 0.862	D	35.1 0.866	-0.246 D/V
# 22 University & Runnymede	C	23.4 0.723	C	23.2 0.726	-0.152 D/V
# 23 University & Bell	A	7.9 0.566	A	7.8 0.570	-0.090 D/V
# 24 University & Donohoe	D	38.1 0.902	D	38.7 0.904	+ 0.597 D/V
# 25 NB 101 & Donohoe St	B	13.9 0.499	B	13.9 0.501	+ 0.040 D/V

Intersection		Base		Future		Change in
		Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C	
# 26 University & SB US 101	C	27.1	0.544	C 27.0	0.560	-0.065 D/V
# 27 University Ave. & Woodland	D	49.6	0.920	D 50.0	0.927	+ 0.400 D/V
# 28 Middlefield Rd. & University A	C	33.2	0.575	C 34.8	0.640	+ 1.586 D/V
# 29 Bayfront Exp. & Chrysler Dr.	B	19.5	0.729	F 87.4	1.138	+67.973 D/V
# 30 Bayfront Exp. & Chilco St.	B	14.3	0.625	B 18.4	0.735	+ 4.142 D/V
# 31 Middlefield Rd. & Ravenswood A	C	27.6	0.768	C 27.6	0.785	-0.054 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	28.7	0.647	C 29.5	0.671	+ 0.837 D/V
# 33 Middlefield Rd and Lytton Ave	D	39.6	0.754	D 42.0	0.812	+ 2.404 D/V
# 34 Bayfront Expy. and Facebook We	A	1.4	0.541	A 1.5	0.589	+ 0.120 D/V

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

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 140 Critical Vol./Cap. (X): 1.030
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 61.1
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Include			Ovl			Ovl			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	3	0	0	1	0	1	0	1	0	0	2	0

Volume Module: >> Count Date: 22 Oct 2009 << 4:45 - 5:45 PM

Base Vol:	1184	49	7	0	346	186	139	40	1952	31	73	11
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	1267	52	7	0	370	199	149	43	2089	33	78	12
Added Vol:	980	0	0	0	0	0	0	0	53	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2247	52	7	0	370	199	149	43	2142	33	78	12
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:	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 Volume:	2247	52	7	0	370	199	149	43	2142	33	78	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2247	52	7	0	370	199	149	43	2142	33	78	12
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:	2247	52	7	0	370	199	149	43	2142	33	78	12

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.96	0.96	0.95	0.93	0.83	0.94	0.94	0.73	0.95	0.95	0.95
Lanes:	3.00	0.87	0.13	0.00	2.00	1.00	0.78	0.22	2.00	0.27	0.63	0.10
Final Sat.:	5147	1598	228	0	3538	1583	1392	401	2786	489	1151	174

Capacity Analysis Module:

Vol/Sat:	0.44	0.03	0.03	0.00	0.10	0.13	0.11	0.11	0.77	0.07	0.07	0.07
Crit Moves:	****			****			****			****		
Green/Cycle:	0.42	0.42	0.42	0.00	0.10	0.42	0.32	0.32	0.75	0.07	0.07	0.07
Volume/Cap:	1.03	0.08	0.08	0.00	1.03	0.30	0.33	0.33	1.03	1.03	1.03	1.03
Uniform Del:	40.3	24.0	24.0	0.0	62.9	26.5	35.9	35.9	17.7	65.4	65.4	65.4
IncrementDel:	27.3	0.0	0.0	0.0	55.3	0.2	0.3	0.3	27.8	90.5	90.5	90.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	67.6	24.1	24.1	0.0	118	26.8	36.3	36.3	45.5	155.8	156	155.8
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:	67.6	24.1	24.1	0.0	118	26.8	36.3	36.3	45.5	155.8	156	155.8
LOS by Move:	E	C	C	A	F	C	D	D	D	F	F	F
HCM2kAvgQ:	41	1	1	0	13	6	6	6	62	9	9	9

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.
Cycle (sec): 65 Critical Vol./Cap. (X): 1.046
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 33.4
Optimal Cycle: 180 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Permitted), Rights (Include, Ignore), and Lanes.

Table with 12 columns: Volume Module, Count, Date (30 Sep 2009), and time range (4:30 - 5:30 PM). Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. Values range from 0.00 to 1.00.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.
Cycle (sec): 65 Critical Vol./Cap. (X): 0.930
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 25.4
Optimal Cycle: 93 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Permitted), Rights (Include, Ignore), and Lanes.

Table with 12 columns: Volume Module, Count, Date (30 Sep 2009), and time range (4:30 - 5:30 PM). Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. Values range from 0.00 to 1.00.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.845
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 21.1
Optimal Cycle: 59 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include, Include, Include), Min. Green (4, 4, 4, 4), Lanes (0, 1, 0, 0, 2, 0, 1, 0, 0, 1, 1, 0, 2, 1, 0, 2, 0, 1, 1, 0)

Volume Module: >> Count Date: 4 Nov 2009 << 4:45 - 5:45 PM
Base Vol: 28 15 267 254 9 2 42 1314 17 78 1109 214
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 30 16 286 272 10 2 45 1406 18 83 1187 229
Added Vol: 0 0 0 0 0 0 0 0 63 0 0 377 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 30 16 286 272 10 2 45 1469 18 83 1564 229
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 30 16 286 272 10 2 45 1469 18 83 1564 229
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 30 16 286 272 10 2 45 1469 18 83 1564 229
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: 30 16 286 272 10 2 45 1469 18 83 1564 229

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 0.73 0.93 0.93 0.83 0.93 0.89 0.89 0.90 0.91 0.91
Lanes: 0.65 0.35 2.00 0.97 0.03 1.00 1.00 2.96 0.04 2.00 1.74 0.26
Final Sat.: 1174 629 2786 1716 61 1583 1769 5011 62 3432 3027 443

Capacity Analysis Module:
Vol/Sat: 0.03 0.03 0.10 0.16 0.16 0.00 0.03 0.29 0.29 0.02 0.52 0.52
Crit Moves: ****
Green/Cycle: 0.12 0.12 0.12 0.18 0.18 0.18 0.05 0.55 0.55 0.09 0.60 0.60
Volume/Cap: 0.22 0.22 0.86 0.86 0.86 0.01 0.51 0.53 0.53 0.26 0.86 0.86
Uniform Del: 31.9 31.9 34.6 31.7 31.7 26.7 37.0 11.3 11.3 33.6 13.4 13.4
IncrementDel: 0.5 0.5 20.3 20.5 20.5 0.0 4.8 0.2 0.2 0.4 4.0 4.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 32.4 32.4 54.9 52.2 52.2 26.7 41.8 11.5 11.5 34.0 17.4 17.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 32.4 32.4 54.9 52.2 52.2 26.7 41.8 11.5 11.5 34.0 17.4 17.4
LOS by Move: C C D D D C D B B C B B
HCM2kAvgQ: 1 1 7 10 10 0 2 9 9 1 22 22

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.735
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 21.4
Optimal Cycle: 38 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include, Include, Include), Min. Green (4, 4, 4, 4), Lanes (1, 0, 0, 1, 0, 1, 1, 0, 0, 1, 1, 0, 1, 0, 2, 0, 1)

Volume Module: >> Count Date: 7 Oct 2009 << 4:30 - 5:30 pm
Base Vol: 95 32 58 428 30 128 239 885 55 26 833 316
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 102 34 62 458 32 137 256 947 59 28 891 338
Added Vol: 0 0 0 0 0 0 0 0 63 0 0 377 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 102 34 62 458 32 137 256 1010 59 28 1268 338
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: 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 Volume: 102 34 62 458 32 137 256 1010 59 28 1268 338
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 102 34 62 458 32 137 256 1010 59 28 1268 338
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: 102 34 62 458 32 137 256 1010 59 28 1268 338

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.88 0.88 0.94 0.94 0.83 0.93 0.92 0.92 0.93 0.93 0.83
Lanes: 1.00 0.36 0.64 1.87 0.13 1.00 1.00 1.89 0.11 1.00 2.00 1.00
Final Sat.: 1769 598 1084 3323 233 1583 1769 3316 193 1769 3538 1583

Capacity Analysis Module:
Vol/Sat: 0.06 0.06 0.06 0.14 0.14 0.09 0.14 0.30 0.30 0.02 0.36 0.21
Crit Moves: ****
Green/Cycle: 0.08 0.08 0.08 0.19 0.19 0.19 0.20 0.59 0.59 0.10 0.49 0.49
Volume/Cap: 0.74 0.73 0.73 0.74 0.74 0.46 0.74 0.52 0.52 0.16 0.74 0.44
Uniform Del: 36.1 36.1 36.1 30.6 30.6 28.9 30.2 9.8 9.8 33.2 16.4 13.4
IncrementDel: 18.4 19.0 19.0 4.3 4.3 1.1 7.9 0.2 0.2 0.5 1.7 0.4
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 54.5 55.0 55.0 34.9 34.9 30.1 38.1 10.0 10.0 33.6 18.0 13.7
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: 54.5 55.0 55.0 34.9 34.9 30.1 38.1 10.0 10.0 33.6 18.0 13.7
LOS by Move: D E E C C C D B B C B B
HCM2kAvgQ: 4 4 4 7 7 4 8 8 8 1 14 6

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

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

Intersection #6 Bay Rd. & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.640
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 14.5
Optimal Cycle: 30 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Permitted, Protected), Rights (Include, Ovl), Min. Green, Lanes.

Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 57 8 180 55 31 3 5 819 90 200 891 47
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 61 9 193 59 33 3 5 876 96 214 953 50
Added Vol: 2 0 0 0 0 0 0 0 63 2 0 377 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 63 9 193 59 33 3 5 939 98 214 1330 50
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: 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 Volume: 63 9 193 59 33 3 5 939 98 214 1330 50
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 63 9 193 59 33 3 5 939 98 214 1330 50
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: 63 9 193 59 33 3 5 939 98 214 1330 50

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.81 0.81 0.81 0.68 0.68 0.68 0.87 0.87 0.87 0.93 0.93 0.93
Lanes: 0.24 0.03 0.73 0.62 0.35 0.03 0.01 1.80 0.19 1.00 1.93 0.07
Final Sat.: 366 50 1118 800 451 44 17 2981 312 1769 3392 128

Capacity Analysis Module:
Vol/Sat: 0.17 0.17 0.17 0.07 0.07 0.07 0.32 0.32 0.32 0.12 0.39 0.39
Crit Moves: ****
Green/Cycle: 0.27 0.27 0.27 0.27 0.27 0.27 0.49 0.49 0.49 0.19 0.68 0.68
Volume/Cap: 0.64 0.64 0.64 0.27 0.27 0.27 0.64 0.64 0.64 0.64 0.58 0.58
Uniform Del: 25.9 25.9 25.9 23.1 23.1 23.1 15.1 15.1 15.1 29.9 6.7 6.7
IncrementDel: 3.4 3.4 3.4 0.4 0.4 0.4 0.9 0.9 0.9 4.1 0.3 0.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 29.3 29.3 29.3 23.5 23.5 23.5 15.9 15.9 15.9 34.0 7.0 7.0
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: 29.3 29.3 29.3 23.5 23.5 23.5 15.9 15.9 15.9 34.0 7.0 7.0
LOS by Move: C C C C C C B B C A A
HCM2kAvgQ: 7 7 7 2 2 2 11 11 11 6 10 10

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)
Cycle (sec): 110 Critical Vol./Cap. (X): 0.976
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 41.6
Optimal Cycle: 178 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Protected), Rights (Include, Ovl), Min. Green, Lanes.

Volume Module: >> Count Date: 18 Nov 2009 << 5:00 - 6:00 p.m.
Base Vol: 0 426 548 408 269 0 0 0 0 515 0 447
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 0 456 586 437 288 0 0 0 0 551 0 478
Added Vol: 0 58 42 23 11 0 0 0 0 103 0 276
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 514 628 460 299 0 0 0 0 654 0 754
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: 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 Volume: 0 514 628 460 299 0 0 0 0 654 0 754
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 514 628 460 299 0 0 0 0 654 0 754
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: 0 514 628 460 299 0 0 0 0 654 0 754

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

Capacity Analysis Module:
Vol/Sat: 0.00 0.27 0.39 0.25 0.16 0.00 0.00 0.00 0.00 0.36 0.00 0.47
Crit Moves: ****
Green/Cycle: 0.00 0.28 0.65 0.26 0.54 0.00 0.00 0.00 0.00 0.37 0.00 0.63
Volume/Cap: 0.00 0.98 0.60 0.98 0.29 0.00 0.00 0.00 0.00 0.98 0.00 0.74
Uniform Del: 0.0 39.4 11.1 40.3 13.9 0.0 0.0 0.0 0.0 34.1 0.0 14.0
IncrementDel: 0.0 33.0 1.0 35.2 0.2 0.0 0.0 0.0 0.0 28.7 0.0 2.9
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Delay/Veh: 0.0 72.4 12.1 75.5 14.1 0.0 0.0 0.0 0.0 62.8 0.0 16.9
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 72.4 12.1 75.5 14.1 0.0 0.0 0.0 0.0 62.8 0.0 16.9
LOS by Move: A E B E B A A A A E A B
HCM2kAvgQ: 0 23 13 21 5 0 0 0 0 28 0 19

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.206
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 115.6
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 4:45 - 5:45 PM
Base Vol: 362 664 1 0 2199 108 36 13 1424 44 105 8
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.03 0.83 0.90 1.03 0.83 0.92 0.92 0.88 0.93 0.93 0.83

Capacity Analysis Module:
Vol/Sat: 0.23 0.17 0.00 0.01 0.43 0.07 0.02 0.03 0.46 0.21 0.14 0.12
Crit Moves: ****
Green/Cycle: 0.19 0.44 0.61 0.10 0.36 0.36 0.19 0.19 0.38 0.17 0.17 0.27

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.730
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 23.7
Optimal Cycle: 64 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 7 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 129 6 49 73 5 73 130 1351 5 20 553 67
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.61 0.61 0.61 0.73 0.73 0.73 0.93 0.93 0.93 0.93 0.92 0.92

Capacity Analysis Module:
Vol/Sat: 0.17 0.17 0.17 0.12 0.12 0.12 0.08 0.44 0.44 0.01 0.41 0.41
Crit Moves: ****
Green/Cycle: 0.23 0.23 0.23 0.23 0.23 0.23 0.11 0.62 0.62 0.06 0.56 0.56

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

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

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.707
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.0
Optimal Cycle: 60 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.616
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 9.3
Optimal Cycle: 49 Level Of Service: A

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 1.014
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 48.0
Optimal Cycle: 180 Level Of Service: D

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Ovl, Include), Min. Green (5, 5, 5, 5), Lanes (2, 0, 1, 0, 1, 1, 0, 2, 1, 0, 1, 0, 1, 1, 0)

Volume Module: >> Count Date: 7 Oct 2009 << 4:45 - 5:45 PM
Base Vol: 248 170 55 38 166 219 323 1436 339 102 975 34
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 265 182 59 41 178 234 346 1537 363 109 1043 36
Added Vol: 0 0 0 0 0 0 9 6 111 0 0 699 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 265 182 59 41 178 243 352 1648 363 109 1742 36
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: 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 Volume: 265 182 59 41 178 243 352 1648 363 109 1742 36
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 265 182 59 41 178 243 352 1648 363 109 1742 36
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: 265 182 59 41 178 243 352 1648 363 109 1742 36

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.98 0.83 0.93 0.98 0.83 0.93 0.87 0.87 0.93 0.93 0.93
Lanes: 2.00 1.00 1.00 1.00 1.00 1.00 1.00 2.46 0.54 1.00 1.96 0.04
Final Sat.: 3432 1862 1583 1769 1862 1583 1769 4054 892 1769 3455 72

Capacity Analysis Module:
Vol/Sat: 0.08 0.10 0.04 0.02 0.10 0.15 0.20 0.41 0.41 0.06 0.50 0.50
Crit Moves: ****
Green/Cycle: 0.10 0.10 0.19 0.09 0.09 0.29 0.20 0.60 0.60 0.09 0.50 0.50
Volume/Cap: 0.80 1.01 0.20 0.24 1.01 0.53 1.01 0.68 0.68 0.68 1.01 1.01
Uniform Del: 53.1 54.2 41.1 50.4 54.4 35.7 48.2 16.0 16.0 52.8 30.2 30.2
IncrementDel: 13.2 71.0 0.3 0.8 71.8 1.2 52.1 0.6 0.6 10.8 25.1 25.1
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 66.3 125 41.5 51.2 126 36.9 100.3 16.7 16.7 63.6 55.3 55.3
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: 66.3 125 41.5 51.2 126 36.9 100.3 16.7 16.7 63.6 55.3 55.3
LOS by Move: E F D D F D F B B E E E
HCM2kAvgQ: 7 11 2 2 11 8 19 18 18 5 43 43

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.805
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 21.4
Optimal Cycle: 73 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include), Min. Green (0, 0, 0, 5, 5, 5, 5, 0, 0, 5, 5), Lanes (0, 0, 0, 0, 0, 1, 0, 0, 0, 1, 1, 0, 2, 0, 0, 0, 0, 2, 0, 1)

Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 0 0 0 416 0 54 40 1436 0 0 1061 255
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 0 0 0 445 0 58 43 1537 0 0 1135 273
Added Vol: 0 0 0 4 0 0 0 64 0 0 197 7
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 449 0 58 43 1601 0 0 1332 280
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 0 0 0 449 0 58 43 1601 0 0 1332 280
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 449 0 58 43 1601 0 0 1332 280
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 0 0 449 0 58 43 1601 0 0 1332 280

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.93 1.00 0.83 0.93 0.93 1.00 1.00 0.93 0.83
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 0 0 0 1769 0 1583 1769 3538 0 0 3538 1583

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.25 0.00 0.04 0.02 0.45 0.00 0.00 0.38 0.18
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.32 0.00 0.32 0.07 0.56 0.00 0.00 0.49 0.49
Volume/Cap: 0.00 0.00 0.00 0.80 0.00 0.12 0.33 0.80 0.00 0.00 0.77 0.36
Uniform Del: 0.0 0.0 0.0 28.3 0.0 21.9 39.7 15.7 0.0 0.0 18.8 14.2
IncrementDel: 0.0 0.0 0.0 8.3 0.0 0.1 1.6 2.5 0.0 0.0 2.1 0.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Delay/Veh: 0.0 0.0 0.0 36.6 0.0 22.0 41.2 18.2 0.0 0.0 20.9 14.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 36.6 0.0 22.0 41.2 18.2 0.0 0.0 20.9 14.5
LOS by Move: A A A D A C D B A A C B
HCM2kAvgQ: 0 0 0 14 0 1 1 20 0 0 17 5

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

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

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.803
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 17.3
Optimal Cycle: 63 Level Of Service: B

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Protected), Rights (Include, Include), Min. Green (4, 4, 4, 4, 10, 10, 4, 10, 10), Lanes (1, 0, 0, 1, 0, 0, 1, 0, 0, 1, 0, 1, 0, 0, 1, 0)

Volume Module: >> Count Date: 1 Oct 2009 << 4:00 - 5:00 PM
Base Vol: 33 7 85 122 5 31 11 1125 10 90 818 51
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 35 7 91 131 5 33 12 1204 11 96 875 55
Added Vol: 0 0 0 0 0 0 0 0 64 0 0 197 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 35 7 91 131 5 33 12 1268 11 96 1072 55
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: 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 Volume: 35 7 91 131 5 33 12 1268 11 96 1072 55
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 35 7 91 131 5 33 12 1268 11 96 1072 55
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: 35 7 91 131 5 33 12 1268 11 96 1072 55

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.46 0.84 0.84 0.54 0.54 0.83 0.93 0.93 0.93 0.93 0.97 0.97
Lanes: 1.00 0.08 0.92 0.96 0.04 1.00 1.00 1.98 0.02 1.00 0.95 0.05
Final Sat.: 879 122 1481 982 40 1583 1769 3505 30 1769 1759 90

Capacity Analysis Module:
Vol/Sat: 0.04 0.06 0.06 0.13 0.13 0.02 0.01 0.36 0.36 0.05 0.61 0.61
Crit Moves: ****
Green/Cycle: 0.16 0.16 0.16 0.16 0.16 0.16 0.04 0.67 0.67 0.10 0.73 0.73
Volume/Cap: 0.25 0.38 0.38 0.83 0.83 0.13 0.17 0.54 0.54 0.54 0.83 0.83
Uniform Del: 38.6 39.4 39.4 42.7 42.7 37.8 48.9 8.9 8.9 44.9 9.4 9.4
IncrementDel: 0.9 1.0 1.0 28.3 28.3 0.2 1.2 0.2 0.2 3.3 4.4 4.4
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 39.5 40.4 40.4 71.0 71.0 38.0 50.1 9.1 9.1 48.1 13.9 13.9
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: 39.5 40.4 40.4 71.0 71.0 38.0 50.1 9.1 9.1 48.1 13.9 13.9
LOS by Move: D D D E E D D A A D B B
HCM2kAvgQ: 1 3 3 7 7 1 1 11 11 4 27 27

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

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

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.818
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 12.4
Optimal Cycle: 67 Level Of Service: B

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Protected), Rights (Include, Include), Min. Green (4, 4, 4, 4, 10, 10, 10, 10, 10), Lanes (0, 0, 1, 0, 0, 0, 0, 1, 0, 0, 1, 0, 1, 0, 0, 1, 0)

Volume Module: >> Count Date: 30 Sep 2009 << 5:00 - 6:00 PM
Base Vol: 12 11 7 92 6 35 24 1083 6 5 795 109
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 13 12 7 98 6 37 26 1159 6 5 851 117
Added Vol: 0 0 0 0 0 0 0 0 64 0 0 197 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 13 12 7 98 6 37 26 1223 6 5 1048 117
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: 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 Volume: 13 12 7 98 6 37 26 1223 6 5 1048 117
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 13 12 7 98 6 37 26 1223 6 5 1048 117
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: 13 12 7 98 6 37 26 1223 6 5 1048 117

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.86 0.86 0.86 0.73 0.73 0.73 0.15 0.98 0.98 0.13 0.97 0.97
Lanes: 0.40 0.37 0.23 0.69 0.05 0.26 1.00 0.99 0.01 1.00 0.90 0.10
Final Sat.: 654 599 381 961 63 366 292 1850 10 238 1650 184

Capacity Analysis Module:
Vol/Sat: 0.02 0.02 0.02 0.10 0.10 0.10 0.09 0.66 0.66 0.02 0.63 0.63
Crit Moves: ****
Green/Cycle: 0.13 0.13 0.13 0.13 0.13 0.13 0.81 0.81 0.81 0.81 0.81 0.81
Volume/Cap: 0.16 0.16 0.16 0.82 0.82 0.82 0.11 0.82 0.82 0.03 0.79 0.79
Uniform Del: 41.0 41.0 41.0 44.8 44.8 44.8 2.1 5.7 5.7 2.0 5.3 5.3
IncrementDel: 0.4 0.4 0.4 25.2 25.2 25.2 0.2 3.6 3.6 0.1 2.9 2.9
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 41.3 41.3 41.3 69.9 69.9 69.9 2.3 9.3 9.3 2.0 8.1 8.1
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: 41.3 41.3 41.3 69.9 69.9 69.9 2.3 9.3 9.3 2.0 8.1 8.1
LOS by Move: D D D E E E A A A A A A
HCM2kAvgQ: 1 1 1 7 7 7 0 24 24 0 21 21

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

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

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.760
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 11.8
Optimal Cycle: 54 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Table with columns: Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.423
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 179.8
Optimal Cycle: 180 Level Of Service: F

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Table with columns: Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 150 Critical Vol./Cap. (X): 1.458
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 206.8
Optimal Cycle: 180 Level Of Service: F

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume. Rows for 1 Oct 2009 << 5:00 - 6:00 PM.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. Rows for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ. Rows for Capacity Analysis Module.

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

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

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 0.725
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.7
Optimal Cycle: 58 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume. Rows for 8 Oct 2009 << 5:00 - 6:00 PM.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. Rows for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ. Rows for Capacity Analysis Module.

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

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

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap. (X): 0.691
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 16.4
Optimal Cycle: 85 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: Table with 12 columns for volume metrics (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Saturation Flow Module: Table with 12 columns for saturation flow metrics (Sat/Lane, Adjustment, Lanes, Final Sat.).

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

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

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

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap. (X): 0.866
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 35.1
Optimal Cycle: 93 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: Table with 12 columns for volume metrics (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Saturation Flow Module: Table with 12 columns for saturation flow metrics (Sat/Lane, Adjustment, Lanes, Final Sat.).

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

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

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

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap. (X): 0.726
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 23.2
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Protected, Include), and Lanes (0, 0, 1, 0, 0).

Volume Module:
Base Vol: 78 109 59 17 76 27 29 1264 78 44 793 17
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 83 117 63 18 81 29 31 1352 83 47 849 18
Added Vol: 0 0 0 0 0 0 0 0 12 0 0 98 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 83 117 63 18 81 29 31 1364 83 47 947 18
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: 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 Volume: 83 117 63 18 81 29 31 1364 83 47 947 18
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 83 117 63 18 81 29 31 1364 83 47 947 18
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: 83 117 63 18 81 29 31 1364 83 47 947 18

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 0.95 0.96 0.96 0.96 0.95 0.94 0.94 0.95 0.95 0.95
Lanes: 0.32 0.44 0.24 0.14 0.63 0.23 1.00 1.88 0.12 1.00 1.96 0.04
Final Sat.: 574 802 434 259 1159 412 1805 3371 206 1805 3531 68

Capacity Analysis Module:
Vol/Sat: 0.15 0.15 0.15 0.07 0.07 0.07 0.02 0.40 0.40 0.03 0.27 0.27
Crit Moves: ****
Green/Cycle: 0.20 0.20 0.20 0.10 0.10 0.10 0.09 0.55 0.55 0.05 0.50 0.50
Volume/Cap: 0.74 0.74 0.74 0.74 0.74 0.74 0.18 0.74 0.74 0.52 0.53 0.53
Uniform Del: 37.7 37.7 37.7 44.0 44.0 44.0 41.8 17.2 17.2 46.3 16.8 16.8
IncrementDel: 7.9 7.9 7.9 15.4 15.4 15.4 0.5 1.5 1.5 5.4 0.3 0.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 45.7 45.7 45.7 59.4 59.4 59.4 42.3 18.7 18.7 51.7 17.1 17.1
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: 45.7 45.7 45.7 59.4 59.4 59.4 42.3 18.7 18.7 51.7 17.1 17.1
LOS by Move: D D D E E E D B B D B B
HCM2kAvgQ: 9 9 9 6 6 6 1 19 19 2 11 11

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

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

Intersection #23 University & Bell

Cycle (sec): 90 Critical Vol./Cap. (X): 0.570
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 7.8
Optimal Cycle: 86 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Permitted, Include), and Lanes (0, 0, 1, 0, 0).

Volume Module:
Base Vol: 60 83 38 11 68 22 42 1322 87 37 787 22
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 64 89 41 12 73 24 45 1415 93 40 842 24
Added Vol: 0 0 0 0 0 0 0 0 12 0 0 98 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 64 89 41 12 73 24 45 1427 93 40 940 24
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 64 89 41 12 73 24 45 1427 93 40 940 24
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 64 89 41 12 73 24 45 1427 93 40 940 24
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: 64 89 41 12 73 24 45 1427 93 40 940 24

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.85 0.85 0.85 0.94 0.94 0.94 0.27 0.94 0.94 0.13 0.95 0.95
Lanes: 0.33 0.46 0.21 0.11 0.67 0.22 1.00 1.88 0.12 1.00 1.95 0.05
Final Sat.: 536 742 340 195 1205 390 507 3358 219 245 3508 88

Capacity Analysis Module:
Vol/Sat: 0.12 0.12 0.12 0.06 0.06 0.06 0.09 0.42 0.42 0.16 0.27 0.27
Crit Moves: ****
Green/Cycle: 0.21 0.21 0.21 0.21 0.21 0.21 0.75 0.75 0.75 0.75 0.75 0.75
Volume/Cap: 0.57 0.57 0.57 0.29 0.29 0.29 0.12 0.57 0.57 0.22 0.36 0.36
Uniform Del: 31.9 31.9 31.9 29.9 29.9 29.9 3.2 5.1 5.1 3.5 4.0 4.0
IncrementDel: 2.3 2.3 2.3 0.4 0.4 0.4 0.1 0.3 0.3 0.6 0.1 0.1
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 34.2 34.2 34.2 30.3 30.3 30.3 3.3 5.4 5.4 4.1 4.1 4.1
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: 34.2 34.2 34.2 30.3 30.3 30.3 3.3 5.4 5.4 4.1 4.1 4.1
LOS by Move: C C C C C C A A A A A A
HCM2kAvgQ: 6 6 6 3 3 3 0 10 10 1 5 5

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

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

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap. (X): 0.904
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 38.7
Optimal Cycle: 110 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module:
Base Vol: 315 485 599 32 175 224 217 784 540 115 663 173
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 337 519 641 34 187 240 232 839 578 123 709 185
Added Vol: 0 0 7 0 0 0 0 5 0 0 98 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 337 519 648 34 187 240 232 844 578 123 807 185
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: 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 Volume: 337 519 648 34 187 240 232 844 578 123 807 185
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 337 519 648 34 187 240 232 844 578 123 807 185
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: 337 519 648 34 187 240 232 844 578 123 807 185

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.88 0.88 0.88 0.95 1.00 0.85 0.95 0.89 0.89 0.92 0.92 0.92
Lanes: 1.00 1.33 1.67 1.00 1.00 1.00 1.00 1.19 0.81 2.00 1.63 0.37
Final Sat.: 1669 2227 2780 1805 1900 1615 1805 2012 1378 3502 2854 654

Capacity Analysis Module:
Vol/Sat: 0.20 0.23 0.23 0.02 0.10 0.15 0.13 0.42 0.42 0.04 0.28 0.28
Crit Moves: ****
Green/Cycle: 0.22 0.31 0.31 0.07 0.16 0.16 0.16 0.46 0.46 0.05 0.35 0.35
Volume/Cap: 0.92 0.74 0.74 0.28 0.61 0.92 0.81 0.92 0.92 0.70 0.81 0.81
Uniform Del: 38.1 30.6 30.6 44.3 39.0 41.2 40.6 25.3 25.3 46.8 29.6 29.6
IncrementDel: 8.5 1.5 1.5 1.3 3.5 34.2 15.8 8.9 8.9 12.1 4.2 4.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 46.6 32.1 32.1 45.6 42.5 75.4 56.4 34.2 34.2 58.9 33.7 33.7
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: 46.6 32.1 32.1 45.6 42.5 75.4 56.4 34.2 34.2 58.9 33.7 33.7
LOS by Move: D C C D D E E C C E C C
HCM2kAvgQ: 15 13 13 1 6 11 9 26 26 3 17 17

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

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 90 Critical Vol./Cap. (X): 0.501
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 13.9
Optimal Cycle: 82 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module:
Base Vol: 0 802 19 0 783 0 765 0 277 0 0 16
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 0 858 20 0 838 0 819 0 296 0 0 17
Added Vol: 0 0 0 0 0 0 7 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 858 20 0 838 0 826 0 296 0 0 17
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: 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 Volume: 0 858 20 0 838 0 826 0 296 0 0 17
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 858 20 0 838 0 826 0 296 0 0 17
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 1.10 1.10 1.00 1.05 1.00 1.03 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 944 22 0 880 0 850 0 296 0 0 17

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 0.95 1.00 0.85 1.00 1.00 0.77
Lanes: 0.00 2.93 0.07 0.00 2.00 0.00 2.00 0.00 1.00 0.00 0.00 1.00
Final Sat.: 0 5568 132 0 3800 0 3610 0 1615 0 0 1463

Capacity Analysis Module:
Vol/Sat: 0.00 0.17 0.17 0.00 0.23 0.00 0.24 0.00 0.18 0.00 0.00 0.01
Crit Moves: ****
Green/Cycle: 0.00 0.37 0.37 0.00 0.37 0.00 0.38 0.00 0.58 0.00 0.00 0.20
Volume/Cap: 0.00 0.45 0.45 0.00 0.62 0.00 0.62 0.00 0.32 0.00 0.00 0.06
Uniform Del: 0.0 16.1 16.1 0.0 17.4 0.0 17.1 0.0 7.4 0.0 0.0 22.1
IncrementDel: 0.0 0.1 0.1 0.0 0.6 0.0 0.6 0.0 0.1 0.0 0.0 0.0
Delay Adj: 0.00 0.85 0.85 0.00 0.85 0.00 0.85 0.00 0.85 0.00 0.00 0.85
Delay/Veh: 0.0 13.8 13.8 0.0 15.4 0.0 15.2 0.0 6.3 0.0 0.0 18.8
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 13.8 13.8 0.0 15.4 0.0 15.2 0.0 6.3 0.0 0.0 18.8
DesignQueue: 0 11 11 0 15 0 14 0 6 0 0 1

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

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

Intersection #26 University & SB US 101

Cycle (sec): 90 Critical Vol./Cap. (X): 0.560
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 27.0
Optimal Cycle: 180 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: Table with 12 columns for traffic volume and 12 columns for performance metrics (Base Vol, Growth Adj, Initial Bse, etc.).

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc.

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

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

Intersection #27 University Ave. & Woodland

Cycle (sec): 110 Critical Vol./Cap. (X): 0.927
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 50.0
Optimal Cycle: 129 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: Table with 12 columns for traffic volume and 12 columns for performance metrics (Base Vol, Growth Adj, Initial Bse, etc.).

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc.

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

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

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.640
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 34.8
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.138
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 87.4
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module:5:00 - 6:00 AM. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.735
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 18.4
Optimal Cycle: 59 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 time slots. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.785
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 27.6
Optimal Cycle: 48 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 time slots. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.671
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 29.5
Optimal Cycle: 33 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 volume categories (Base Vol, Growth Adj, Initial Bse, etc.).

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 110 Critical Vol./Cap. (X): 0.812
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 42.0
Optimal Cycle: 85 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 volume categories (Base Vol, Growth Adj, Initial Bse, etc.).

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec): 100 Critical Vol./Cap. (X): 0.589
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 1.5
Optimal Cycle: 90 Level Of Service: A

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

Volume Module: Table with 12 columns representing different traffic flow directions. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module: Table with 12 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

 Scenario Report
 Scenario: Near Term 2018 East and West Campuses AM

Command: Near Term II Project AM
 Volume: Near Term II Project AM
 Geometry: Near Term II Project AM
 Impact Fee: Default Impact Fee
 Trip Generation: Near Term II Project AM
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Near Term II Project AM

 Impact Analysis Report
 Level Of Service

Intersection		Base		Future		Change in		
		Del/ LOS	V/ Veh	Del/ LOS	V/ Veh			
# 1 Bayfront Exp. & Marsh Rd.	C	23.1	0.790	C	26.0	0.862	+ 2.929	D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	16.2	0.657	E	73.9	1.185	+57.655	D/V
# 3 US 101 SB Ramps & Marsh Rd.	C	22.5	0.886	C	29.7	0.948	+ 7.219	D/V
# 4 Scott Dr/Rolison at Marsh Rd.	C	30.8	0.845	C	26.9	0.874	-3.944	D/V
# 5 Bohannon/ Florence & Marsh Rd.	B	19.9	0.582	B	15.0	0.606	-4.876	D/V
# 6 Bay Rd. & Marsh Rd.	B	16.7	0.603	B	17.6	0.748	+ 0.878	D/V
# 7 Middlefield at Marsh (Town of	C	27.1	0.628	C	31.8	0.847	+ 4.707	D/V
# 8 Bayfront Exp. & Willow Rd.	C	27.8	0.627	E	56.7	0.979	+28.840	D/V
# 9 Hamilton Ave. & Willow Rd.	C	23.1	0.575	B	19.8	0.740	-3.327	D/V
# 10 Ivy Dr. & Willow Rd.	B	18.2	0.532	C	26.0	0.825	+ 7.881	D/V
# 11 O'Brien Dr. & Willow Rd.	B	15.1	0.477	B	13.6	0.747	-1.505	D/V
# 12 Newbridge St. & Willow Rd.	D	51.0	0.929	E	55.3	0.973	+ 4.283	D/V
# 13 Bay Rd. & Willow Rd.	C	20.4	0.714	C	20.7	0.805	+ 0.257	D/V
# 14 Durham St. & Willow Rd.	C	27.5	0.734	B	12.8	0.766	-14.645	D/V
# 15 Coleman Ave. & Willow Rd.	B	13.6	0.735	B	17.4	0.882	+ 3.831	D/V
# 16 Gilbert Ave. & Willow Rd.	B	14.5	0.682	B	18.1	0.855	+ 3.599	D/V
# 17 Middlefield Rd. & Willow Rd.	F	105.0	0.974	F	121.5	1.216	+16.533	D/V
# 18 Bayfront Exp. & University Ave	C	30.1	0.828	C	33.5	0.890	+ 3.412	D/V
# 19 O'Brien Dr. & University Ave.	A	6.5	0.563	A	6.3	0.573	-0.244	D/V
# 20 University & Kavanaugh	B	14.0	0.580	B	13.6	0.584	-0.406	D/V
# 21 University & Bay	C	27.9	0.660	C	27.2	0.664	-0.760	D/V
# 22 University & Runnymede	C	20.7	0.645	C	20.3	0.649	-0.352	D/V
# 23 University & Bell	A	7.7	0.253	A	6.9	0.305	-0.779	D/V
# 24 University & Donohoe	D	42.1	0.952	D	44.4	0.974	+ 2.355	D/V
# 25 NB 101 & Donohoe St	B	9.0	0.393	B	9.4	0.423	+ 0.338	D/V

Intersection		Base		Future		Change in
		Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C	
# 26 University & SB US 101	B	17.4	0.661	B 18.0	0.665	+ 0.617 D/V
# 27 University Ave. & Woodland	D	41.3	0.917	D 41.6	0.921	+ 0.305 D/V
# 28 Middlefield Rd. & University A	D	35.3	0.755	D 42.7	0.858	+ 7.422 D/V
# 29 Bayfront Exp. & Chrysler Dr.	A	7.4	0.601	B 17.4	0.706	+ 9.989 D/V
# 30 Bayfront Exp. & Chilco St.	B	17.2	0.610	B 19.5	0.657	+ 2.236 D/V
# 31 Middlefield Rd. & Ravenswood A	C	22.4	0.623	C 23.6	0.670	+ 1.211 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	28.7	0.484	C 25.4	0.492	-3.245 D/V
# 33 Middlefield Rd and Lytton Ave	C	30.4	0.612	C 32.2	0.676	+ 1.829 D/V
# 34 Bayfront Expy. and Facebook We	A	1.3	0.515	B 18.8	0.780	+17.519 D/V

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

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.862
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 26.0
Optimal Cycle: 105 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	3	0	0	1	0	1	0	1	0	0	2	0

Volume Module: >> Count Date: 22 Oct 2009 << 7:45 - 8:45 AM

Base Vol:	2297	189	23	7	58	148	182	20	997	7	19	5
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	2458	202	25	7	62	158	195	21	1067	7	20	5
Added Vol:	208	0	0	0	0	0	0	0	783	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2666	202	25	7	62	158	195	21	1850	7	20	5
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:	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 Volume:	2666	202	25	7	62	158	195	21	1850	7	20	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2666	202	25	7	62	158	195	21	1850	7	20	5
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:	2666	202	25	7	62	158	195	21	1850	7	20	5

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.96	0.96	0.93	0.93	0.83	0.94	0.94	0.73	0.95	0.95	0.95
Lanes:	3.00	0.89	0.11	0.22	1.78	1.00	0.90	0.10	2.00	0.23	0.61	0.16
Final Sat.:	5147	1633	199	379	3141	1583	1606	176	2786	407	1104	290

Capacity Analysis Module:

Vol/Sat:	0.52	0.12	0.12	0.02	0.02	0.10	0.12	0.12	0.66	0.02	0.02	0.02
Crit Moves:	****			****			****			****		
Green/Cycle:	0.59	0.59	0.59	0.11	0.11	0.11	0.17	0.17	0.76	0.04	0.04	0.04
Volume/Cap:	0.88	0.21	0.21	0.17	0.17	0.88	0.73	0.73	0.88	0.48	0.48	0.48
Uniform Del:	22.8	12.5	12.5	52.1	52.1	56.7	51.4	51.4	11.6	61.2	61.2	61.2
IncramntDel:	3.3	0.1	0.1	0.2	0.2	35.5	8.9	8.9	4.6	5.1	5.1	5.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	26.0	12.6	12.6	52.3	52.3	92.2	60.3	60.3	16.2	66.4	66.4	66.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	26.0	12.6	12.6	52.3	52.3	92.2	60.3	60.3	16.2	66.4	66.4	66.4
LOS by Move:	C	B	B	D	D	F	E	E	B	E	E	E
HCM2kAvgQ:	34	4	4	1	1	9	10	10	33	2	2	2

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 1.185
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 73.9
Optimal Cycle: 180 Level Of Service: E

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM
Base Vol: 818 0 289 0 0 0 0 1138 506 0 821 1699
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.00 0.83 1.00 1.00 1.00 0.89 0.89 1.00 1.00 0.93 1.00

Capacity Analysis Module:
Vol/Sat: 0.26 0.00 0.44 0.00 0.00 0.00 0.64 0.64 0.00 0.00 0.29 0.00
Crit Moves: ****
Green/Cycle: 0.37 0.00 0.37 0.00 0.00 0.00 0.54 0.54 0.00 0.00 0.54 0.00

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.948
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 29.7
Optimal Cycle: 117 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM
Base Vol: 0 0 0 879 0 558 0 834 583 0 1426 86
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.90 1.00 0.83 1.00 0.93 1.00 1.00 0.93 1.00

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.41 0.00 0.38 0.00 0.38 0.00 0.00 0.45 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.43 0.00 0.43 0.00 0.48 0.00 0.00 0.48 0.00

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.874
Loss Time (sec): 14 (Y+R=4.0 sec) Average Delay (sec/veh): 26.9
Optimal Cycle: 92 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 8 Oct 2009 << 7:15 - 8:15 AM
Base Vol: 27 3 49 222 18 3 15 1131 29 268 1416 280
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.94 0.94 0.73 0.94 0.94 0.83 0.93 0.89 0.89 0.90 0.91 0.91

Capacity Analysis Module:
Vol/Sat: 0.02 0.02 0.02 0.14 0.14 0.00 0.01 0.34 0.34 0.08 0.55 0.55
Crit Moves: ****
Green/Cycle: 0.05 0.05 0.05 0.15 0.15 0.15 0.05 0.50 0.50 0.12 0.57 0.57

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.606
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.0
Optimal Cycle: 27 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 7 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 15 9 8 390 30 91 117 796 58 46 1141 323
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.91 0.91 0.94 0.94 0.83 0.93 0.92 0.92 0.93 0.93 0.83

Capacity Analysis Module:
Vol/Sat: 0.01 0.01 0.01 0.13 0.13 0.06 0.07 0.39 0.39 0.03 0.37 0.22
Crit Moves: ****
Green/Cycle: 0.05 0.05 0.05 0.20 0.20 0.20 0.11 0.62 0.62 0.08 0.59 0.59

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

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

Intersection #6 Bay Rd. & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.748
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 17.6
Optimal Cycle: 40 Level Of Service: B

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

Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 70 3 177 112 28 5 2 665 66 264 982 22
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.79 0.79 0.79 0.53 0.53 0.53 0.88 0.88 0.88 0.93 0.93 0.93

Capacity Analysis Module:
Vol/Sat: 0.18 0.18 0.18 0.15 0.15 0.15 0.37 0.37 0.37 0.16 0.33 0.33
Crit Moves: ****
Green/Cycle: 0.25 0.25 0.25 0.25 0.25 0.25 0.49 0.49 0.49 0.21 0.70 0.70

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)
Cycle (sec): 110 Critical Vol./Cap. (X): 0.847
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 31.8
Optimal Cycle: 87 Level Of Service: C

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

Volume Module: >> Count Date: 18 Nov 2009 << 7:15-8:15 a.m.
Base Vol: 0 166 397 342 367 0 0 0 0 463 0 169
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 0.85 0.95 1.00 1.00 1.00 1.00 1.00 0.95 1.00 0.85

Capacity Analysis Module:
Vol/Sat: 0.00 0.10 0.35 0.38 0.24 0.00 0.00 0.00 0.00 0.29 0.00 0.15
Crit Moves: ****
Green/Cycle: 0.00 0.12 0.46 0.45 0.57 0.00 0.00 0.00 0.00 0.34 0.00 0.79

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.979
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 56.7
Optimal Cycle: 180 Level Of Service: E

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Table with columns: Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.740
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 19.8
Optimal Cycle: 66 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Table with columns: Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.825
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 26.0
Optimal Cycle: 87 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM. Table with 12 columns for volume counts and 12 rows for various traffic metrics.

Saturation Flow Module: Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

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

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

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.747
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.6
Optimal Cycle: 68 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 8 Oct 2009 << 8:00 am - 9:00 am. Table with 12 columns for volume counts and 12 rows for various traffic metrics.

Saturation Flow Module: Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.973
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 55.3
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 time slots. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.805
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 20.7
Optimal Cycle: 75 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 time slots. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.766
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 12.8
Optimal Cycle: 55 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.882
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 17.4
Optimal Cycle: 88 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.855
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 18.1
Optimal Cycle: 77 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Permitted, Include), and Lanes (1-0-0-1-0).

Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 101 85 122 31 41 7 4 794 72 41 869 5
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.71 0.88 0.88 0.25 0.96 0.96 0.19 0.97 0.97 0.10 0.98 0.98

Capacity Analysis Module:
Vol/Sat: 0.09 0.15 0.15 0.07 0.03 0.03 0.01 0.64 0.64 0.25 0.53 0.53
Crit Moves: ****
Green/Cycle: 0.18 0.18 0.18 0.18 0.18 0.18 0.75 0.75 0.75 0.75 0.75 0.75

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

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

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.216
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 121.5
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Split Phase, Include), and Lanes (1-0-2-0-1).

Volume Module: >> Count Date: 30 Sep 2009 << 8:00 - 9:00 AM
Base Vol: 67 342 245 408 322 10 16 166 117 420 64 494
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.93 0.42 0.90 0.90 0.90 0.93 0.98 0.83 0.94 0.94 0.83

Capacity Analysis Module:
Vol/Sat: 0.05 0.11 0.51 0.17 0.17 0.17 0.01 0.11 0.09 0.16 0.16 0.35
Crit Moves: ****
Green/Cycle: 0.42 0.42 0.42 0.14 0.14 0.14 0.09 0.09 0.09 0.29 0.29 0.29

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

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

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 160 Critical Vol./Cap. (X): 0.890
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 33.5
Optimal Cycle: 121 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 7:15 - 8:15 AM
Base Vol: 1541 2882 0 0 884 188 179 0 429 0 0 0
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 1649 3084 0 0 946 201 192 0 459 0 0 0
Added Vol: 10 599 0 0 73 13 181 0 2 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 1659 3683 0 0 1019 214 373 0 461 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: 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 Volume: 1659 3683 0 0 1019 214 373 0 461 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 1659 3683 0 0 1019 214 373 0 461 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: 1659 3683 0 0 1019 214 373 0 461 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.89 1.00 1.00 0.89 0.83 0.90 1.00 0.73 1.00 1.00 1.00
Lanes: 2.00 3.00 0.00 0.00 3.00 1.00 2.00 0.00 3.00 0.00 0.00 0.00
Final Sat.: 3432 5083 0 0 5083 1583 3432 0 4178 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.48 0.72 0.00 0.00 0.20 0.14 0.11 0.00 0.11 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.58 0.81 0.00 0.00 0.24 0.24 0.12 0.00 0.12 0.00 0.00 0.00
Volume/Cap: 0.84 0.89 0.00 0.00 0.84 0.57 0.88 0.00 0.89 0.00 0.00 0.00
Uniform Del: 28.0 10.1 0.0 0.0 58.0 53.7 68.9 0.0 69.0 0.0 0.0 0.0
IncrementDel: 3.4 2.8 0.0 0.0 5.4 2.0 18.1 0.0 17.3 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00
Delay/Veh: 31.4 12.9 0.0 0.0 63.4 55.7 87.0 0.0 86.3 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: 31.4 12.9 0.0 0.0 63.4 55.7 87.0 0.0 86.3 0.0 0.0 0.0
LOS by Move: C B A A E E F A F A A A
HCM2kAvgQ: 36 47 0 0 20 10 12 0 11 0 0 0

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

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

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 0.573
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 6.3
Optimal Cycle: 43 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 8 Oct 2009 << 7:45 - 8:45 AM
Base Vol: 0 0 0 22 0 22 68 526 0 0 1341 46
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 0 0 0 24 0 24 73 563 0 0 1435 49
Added Vol: 0 0 0 2 0 0 0 181 0 0 13 10
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 26 0 24 73 744 0 0 1448 59
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 0 0 0 26 0 24 73 744 0 0 1448 59
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 26 0 24 73 744 0 0 1448 59
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 0 0 26 0 24 73 744 0 0 1448 59

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.89 1.00 0.89 0.93 0.93 1.00 1.00 0.93 0.93
Lanes: 0.00 0.00 0.00 0.52 0.00 0.48 1.00 2.00 0.00 0.00 1.92 0.08
Final Sat.: 0 0 0 883 0 814 1769 3538 0 0 3378 138

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.03 0.00 0.03 0.04 0.21 0.00 0.00 0.43 0.43
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.06 0.00 0.06 0.07 0.81 0.00 0.00 0.74 0.74
Volume/Cap: 0.00 0.00 0.00 0.49 0.00 0.49 0.58 0.26 0.00 0.00 0.58 0.58
Uniform Del: 0.0 0.0 0.0 38.8 0.0 38.8 38.2 1.9 0.0 0.0 5.0 5.0
IncrementDel: 0.0 0.0 0.0 3.8 0.0 3.8 6.6 0.0 0.0 0.0 0.3 0.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Delay/Veh: 0.0 0.0 0.0 42.5 0.0 42.5 44.8 2.0 0.0 0.0 5.3 5.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 42.5 0.0 42.5 44.8 2.0 0.0 0.0 5.3 5.3
LOS by Move: A A A D A D D A A A A
HCM2kAvgQ: 0 0 0 2 0 2 3 3 0 0 10 10

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

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

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap. (X): 0.584
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.6
Optimal Cycle: 85 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: Table with 12 columns for volume and 12 columns for future volume. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap. (X): 0.664
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 27.2
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: Table with 12 columns for volume and 12 columns for future volume. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap. (X): 0.649
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 20.3
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Protected, Permitted), Rights (Include, Include, Include).

Volume Module:
Base Vol: 47 105 12 16 59 56 18 626 48 88 1246 61
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 50 112 13 17 63 60 19 670 51 94 1333 65
Added Vol: 0 0 0 0 0 0 0 0 181 0 0 13 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 50 112 13 17 63 60 19 851 51 94 1346 65
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: 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 Volume: 50 112 13 17 63 60 19 851 51 94 1346 65
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 50 112 13 17 63 60 19 851 51 94 1346 65
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 50 112 13 17 63 60 19 851 51 94 1346 65

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.98 0.98 0.98 0.94 0.94 0.94 0.95 0.94 0.94 0.95 0.94 0.94
Lanes: 0.29 0.64 0.07 0.12 0.45 0.43 1.00 1.89 0.11 1.00 1.91 0.09
Final Sat.: 532 1187 136 217 801 761 1805 3374 204 1805 3419 166

Capacity Analysis Module:
Vol/Sat: 0.09 0.09 0.09 0.08 0.08 0.08 0.01 0.25 0.25 0.05 0.39 0.39
Crit Moves: ****
Green/Cycle: 0.14 0.14 0.14 0.12 0.12 0.12 0.05 0.52 0.52 0.11 0.58 0.58
Volume/Cap: 0.68 0.68 0.68 0.68 0.68 0.68 0.21 0.48 0.48 0.48 0.68 0.68
Uniform Del: 40.8 40.8 40.8 42.3 42.3 42.3 45.6 15.1 15.1 41.9 14.3 14.3
IncrementDel: 6.9 6.9 6.9 8.5 8.5 8.5 1.2 0.2 0.2 1.9 0.9 0.9
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 47.7 47.7 47.7 50.9 50.9 50.9 46.8 15.3 15.3 43.8 15.2 15.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 47.7 47.7 47.7 50.9 50.9 50.9 46.8 15.3 15.3 43.8 15.2 15.2
LOS by Move: D D D D D D D B B D B B
HCM2kAvgQ: 6 6 6 5 5 5 1 9 9 3 16 16

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

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

Intersection #23 University & Bell

Cycle (sec): 95 Critical Vol./Cap. (X): 0.305
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 6.9
Optimal Cycle: 91 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Permitted, Permitted), Rights (Include, Include, Include).

Volume Module:
Base Vol: 18 59 9 7 43 11 15 614 24 15 123 24
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 19 63 10 7 46 12 16 657 26 16 132 26
Added Vol: 0 0 0 0 0 0 0 0 181 0 0 13 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 19 63 10 7 46 12 16 838 26 16 145 26
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: 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 Volume: 19 63 10 7 46 12 16 838 26 16 145 26
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 19 63 10 7 46 12 16 838 26 16 145 26
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 19 63 10 7 46 12 16 838 26 16 145 26

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.93 0.93 0.95 0.95 0.95 0.64 0.95 0.95 0.30 0.93 0.93
Lanes: 0.21 0.69 0.10 0.11 0.71 0.18 1.00 1.94 0.06 1.00 1.70 0.30
Final Sat.: 369 1209 184 207 1271 325 1212 3489 107 578 2995 532

Capacity Analysis Module:
Vol/Sat: 0.05 0.05 0.05 0.04 0.04 0.04 0.01 0.24 0.24 0.03 0.05 0.05
Crit Moves: ****
Green/Cycle: 0.17 0.17 0.17 0.17 0.17 0.17 0.79 0.79 0.79 0.79 0.79 0.79
Volume/Cap: 0.31 0.31 0.31 0.21 0.21 0.21 0.02 0.31 0.31 0.04 0.06 0.06
Uniform Del: 34.4 34.4 34.4 33.9 33.9 33.9 2.2 2.8 2.8 2.2 2.3 2.3
IncrementDel: 0.6 0.6 0.6 0.3 0.3 0.3 0.0 0.1 0.1 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 35.0 35.0 35.0 34.2 34.2 34.2 2.2 2.9 2.9 2.3 2.3 2.3
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: 35.0 35.0 35.0 34.2 34.2 34.2 2.2 2.9 2.9 2.3 2.3 2.3
LOS by Move: D D D C C C A A A A A A
HCM2kAvgQ: 3 3 3 2 2 2 0 4 4 0 1 1

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

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

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap. (X): 0.974
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 44.4
Optimal Cycle: 161 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 12 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

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

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 65 Critical Vol./Cap. (X): 0.423
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 9.4
Optimal Cycle: 57 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 12 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue).

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

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

Intersection #26 University & SB US 101

Cycle (sec): 85 Critical Vol./Cap. (X): 0.665
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 18.0
Optimal Cycle: 118 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #27 University Ave. & Woodland

Cycle (sec): 100 Critical Vol./Cap. (X): 0.921
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 41.6
Optimal Cycle: 119 Level Of Service: D

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.858
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 42.7
Optimal Cycle: 90 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.706
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 17.4
Optimal Cycle: 54 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Includes Date: 21 Oct 2009 << 7:15 - 8:15 AM. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.657
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 19.5
Optimal Cycle: 48 Level Of Service: B

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

Table with columns: Volume Module, Count, Date (20 Oct 2009), Time (7:45 - 8:45 AM), Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.670
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 23.6
Optimal Cycle: 33 Level Of Service: C

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

Table with columns: Volume Module, Count, Date (20 Oct 2009), Time (7:45 - 8:45 AM), Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.492
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 25.4
Optimal Cycle: 22 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 4 columns: Volume Module, Count, Date (21 Oct 2009), and time range (7:30 - 8:30 AM). Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Table with 4 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 4 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 100 Critical Vol./Cap. (X): 0.676
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 32.2
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 4 columns: Volume Module, Count, Date (21 Oct 2009), and time range (7:30 - 8:30 AM). Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Table with 4 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 4 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec): 100 Critical Vol./Cap. (X): 0.780
 Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 18.8
 Optimal Cycle: 90 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	1	0	3	0	0	3	2	0	0	0	0	0

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Volume Module:

Base Vol:	0	2197	0	0	0	782	0	0	0	0	0	0
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	0	2351	0	0	0	837	0	0	0	0	0	0
Added Vol:	725	216	0	0	0	500	81	25	0	43	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	725	2567	0	0	0	1337	81	25	0	43	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:	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 Volume:	725	2567	0	0	0	1337	81	25	0	43	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	725	2567	0	0	0	1337	81	25	0	43	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:	725	2567	0	0	0	1337	81	25	0	43	0	0

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Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	1.00	1.00	0.91	0.85	0.92	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	5187	0	0	5187	1615	3502	0	1615	0	0	0

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Capacity Analysis Module:

Vol/Sat:	0.40	0.49	0.00	0.00	0.26	0.05	0.01	0.00	0.03	0.00	0.00	0.00
Crit Moves:	****			****			****					
Green/Cycle:	0.48	0.78	0.00	0.00	0.30	0.30	0.10	0.00	0.10	0.00	0.00	0.00
Volume/Cap:	0.85	0.63	0.00	0.00	0.85	0.16	0.07	0.00	0.27	0.00	0.00	0.00
Uniform Del:	23.0	4.8	0.0	0.0	32.5	25.4	40.8	0.0	41.6	0.0	0.0	0.0
IncrementDel:	7.8	0.3	0.0	0.0	4.4	0.2	0.1	0.0	0.9	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	30.8	5.1	0.0	0.0	37.0	25.6	40.9	0.0	42.5	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:	30.8	5.1	0.0	0.0	37.0	25.6	40.9	0.0	42.5	0.0	0.0	0.0
LOS by Move:	C	A	A	A	D	C	D	A	D	A	A	A
HCM2kAvgQ:	22	13	0	0	17	2	0	0	1	0	0	0

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

 Scenario Report
 Scenario: Near Term 2018 East and West Campuses PM

Command: Near Term II Project PM
 Volume: Near Term II Project PM
 Geometry: Near Term II Project PM
 Impact Fee: Default Impact Fee
 Trip Generation: Near Term II Project PM
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Near Term II Project PM

 Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh	Del/ LOS	V/ Veh	
# 1 Bayfront Exp. & Marsh Rd.	E	59.1 1.009	E	63.5 1.042	+ 4.425 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	15.2 0.872	C	35.0 1.056	+19.752 D/V
# 3 US 101 SB Ramps & Marsh Rd.	C	20.0 0.874	C	29.8 0.977	+ 9.718 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	C	21.5 0.733	C	22.9 0.885	+ 1.351 D/V
# 5 Bohannon/ Florence & Marsh Rd.	C	27.2 0.623	C	21.8 0.775	-5.344 D/V
# 6 Bay Rd. & Marsh Rd.	B	15.3 0.618	B	14.5 0.646	-0.784 D/V
# 7 Middlefield at Marsh (Town of	C	33.8 0.866	D	45.4 0.999	+11.587 D/V
# 8 Bayfront Exp. & Willow Rd.	D	52.6 0.981	F	122.5 1.238	+69.850 D/V
# 9 Hamilton Ave. & Willow Rd.	C	22.7 0.649	C	25.1 0.849	+ 2.430 D/V
# 10 Ivy Dr. & Willow Rd.	B	12.3 0.581	B	15.9 0.830	+ 3.531 D/V
# 11 O'Brien Dr. & Willow Rd.	B	10.0 0.584	A	9.2 0.676	-0.808 D/V
# 12 Newbridge St. & Willow Rd.	C	34.5 0.787	E	65.3 1.116	+30.857 D/V
# 13 Bay Rd. & Willow Rd.	C	20.6 0.781	C	21.7 0.807	+ 1.033 D/V
# 14 Durham St. & Willow Rd.	D	51.3 0.680	B	18.2 0.831	-33.117 D/V
# 15 Coleman Ave. & Willow Rd.	B	12.2 0.782	B	13.0 0.821	+ 0.799 D/V
# 16 Gilbert Ave. & Willow Rd.	B	12.7 0.695	B	12.0 0.763	-0.729 D/V
# 17 Middlefield Rd. & Willow Rd.	F	139.3 1.318	F	180.6 1.427	+41.288 D/V
# 18 Bayfront Exp. & University Ave	F	178.9 1.370	F	214.3 1.482	+35.382 D/V
# 19 O'Brien Dr. & University Ave.	B	13.4 0.714	B	13.6 0.727	+ 0.221 D/V
# 20 University & Kavanaugh	B	16.6 0.687	B	16.2 0.693	-0.386 D/V
# 21 University & Bay	D	35.4 0.862	D	35.0 0.868	-0.350 D/V
# 22 University & Runnymede	C	23.4 0.723	C	23.2 0.729	-0.203 D/V
# 23 University & Bell	A	7.9 0.566	A	7.7 0.572	-0.134 D/V
# 24 University & Donohoe	D	38.1 0.902	D	39.2 0.905	+ 1.055 D/V
# 25 NB 101 & Donohoe St	B	13.9 0.499	B	14.0 0.502	+ 0.057 D/V

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Intersection		Base		Future		Change in
		Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C	
# 26 University & SB US 101	C	27.1	0.544	C 27.1	0.567	-0.023 D/V
# 27 University Ave. & Woodland	D	49.6	0.920	D 50.0	0.928	+ 0.410 D/V
# 28 Middlefield Rd. & University A	C	33.2	0.575	D 35.3	0.651	+ 2.072 D/V
# 29 Bayfront Exp. & Chrysler Dr.	B	19.5	0.729	F 87.2	1.145	+67.782 D/V
# 30 Bayfront Exp. & Chilco St.	B	14.3	0.625	B 18.1	0.742	+ 3.824 D/V
# 31 Middlefield Rd. & Ravenswood A	C	27.6	0.768	C 27.6	0.785	-0.054 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	28.7	0.647	C 29.5	0.671	+ 0.837 D/V
# 33 Middlefield Rd and Lytton Ave	D	39.6	0.754	D 42.4	0.819	+ 2.766 D/V
# 34 Bayfront Expy. and Facebook We	A	1.4	0.541	D 36.4	0.929	+35.061 D/V

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

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 140 Critical Vol./Cap. (X): 1.042
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 63.5
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Include			Ovl			Ovl			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	3	0	0	1	0	1	0	1	0	0	2	0

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Volume Module: >> Count Date: 22 Oct 2009 << 4:45 - 5:45 PM

Base Vol:	1184	49	7	0	346	186	139	40	1952	31	73	11
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	1267	52	7	0	370	199	149	43	2089	33	78	12
Added Vol:	1222	0	0	0	0	0	0	0	84	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2489	52	7	0	370	199	149	43	2173	33	78	12
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:	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 Volume:	2489	52	7	0	370	199	149	43	2173	33	78	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2489	52	7	0	370	199	149	43	2173	33	78	12
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:	2489	52	7	0	370	199	149	43	2173	33	78	12

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Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.96	0.96	0.95	0.93	0.83	0.94	0.94	0.73	0.95	0.95	0.95
Lanes:	3.00	0.87	0.13	0.00	2.00	1.00	0.78	0.22	2.00	0.27	0.63	0.10
Final Sat.:	5147	1598	228	0	3538	1583	1392	401	2786	489	1151	174

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Capacity Analysis Module:

Vol/Sat:	0.48	0.03	0.03	0.00	0.10	0.13	0.11	0.11	0.78	0.07	0.07	0.07
Crit Moves:	****			****			****			****		
Green/Cycle:	0.46	0.46	0.46	0.00	0.10	0.39	0.28	0.28	0.75	0.07	0.07	0.07
Volume/Cap:	1.04	0.07	0.07	0.00	1.04	0.33	0.38	0.38	1.04	1.04	1.04	1.04
Uniform Del:	37.5	20.8	20.8	0.0	63.0	30.3	40.1	40.1	17.6	65.4	65.4	65.4
IncrementDel:	30.4	0.0	0.0	0.0	59.0	0.3	0.5	0.5	31.6	94.4	94.4	94.4
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	67.9	20.8	20.8	0.0	122	30.6	40.6	40.6	49.2	159.9	160	159.9
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:	67.9	20.8	20.8	0.0	122	30.6	40.6	40.6	49.2	159.9	160	159.9
LOS by Move:	E	C	C	A	F	C	D	D	D	F	F	F
HCM2kAvgQ:	46	1	1	0	13	6	7	7	64	9	9	9

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.
Cycle (sec): 65 Critical Vol./Cap. (X): 1.056
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 35.0
Optimal Cycle: 180 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Permitted), Rights (Include, Ignore), and Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM
Base Vol: 493 0 213 0 0 0 0 2063 507 0 682 791
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 528 0 228 0 0 0 0 2207 542 0 730 846
Added Vol: 0 0 160 0 0 0 0 3 146 0 0 862 360
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 528 0 388 0 0 0 0 3 2353 542 0 1592 1206
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Volume: 528 0 388 0 0 0 0 3 2353 0 0 1592 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 528 0 388 0 0 0 0 3 2353 0 0 1592 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 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
FinalVolume: 528 0 388 0 0 0 0 3 2353 0 0 1592 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.00 0.83 1.00 1.00 1.00 0.89 0.89 1.00 1.00 0.93 1.00
Lanes: 2.00 0.00 1.00 0.00 0.00 0.00 0.01 1.99 1.00 0.00 2.00 1.00
Final Sat.: 3432 0 1583 0 0 0 4 3374 1900 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.15 0.00 0.25 0.00 0.00 0.00 0.70 0.70 0.00 0.00 0.45 0.00
Crit Moves: ****
Green/Cycle: 0.23 0.00 0.23 0.00 0.00 0.00 0.66 0.66 0.00 0.00 0.66 0.00
Volume/Cap: 0.66 0.00 1.06 0.00 0.00 0.00 1.06 1.06 0.00 0.00 0.68 0.00
Uniform Del: 22.6 0.0 25.0 0.0 0.0 0.0 11.0 11.0 0.0 0.0 6.8 0.0
IncrementDel: 2.1 0.0 62.6 0.0 0.0 0.0 36.0 36.0 0.0 0.0 0.8 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 24.8 0.0 87.5 0.0 0.0 0.0 47.0 47.0 0.0 0.0 7.7 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 24.8 0.0 87.5 0.0 0.0 0.0 47.0 47.0 0.0 0.0 7.7 0.0
LOS by Move: C A F A A A D D A A A A
HCM2kAvgQ: 6 0 15 0 0 0 40 40 0 0 11 0

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.
Cycle (sec): 65 Critical Vol./Cap. (X): 0.977
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 29.8
Optimal Cycle: 123 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Permitted), Rights (Include, Ignore), and Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM
Base Vol: 0 0 0 1355 0 453 0 1181 651 0 940 282
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 0 0 0 1450 0 485 0 1264 697 0 1006 302
Added Vol: 0 0 0 78 0 8 0 78 0 0 503 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 1528 0 493 0 1342 697 0 1509 302
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Volume: 0 0 0 1528 0 493 0 1342 0 0 1509 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 1528 0 493 0 1342 0 0 1509 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 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
FinalVolume: 0 0 0 1528 0 493 0 1342 0 0 1509 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.90 1.00 0.83 1.00 0.93 1.00 1.00 0.93 1.00
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 0.00 2.00 1.00 0.00 2.00 1.00
Final Sat.: 0 0 0 3432 0 1583 0 3538 1900 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.45 0.00 0.31 0.00 0.38 0.00 0.00 0.43 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.46 0.00 0.46 0.00 0.44 0.00 0.00 0.44 0.00
Volume/Cap: 0.00 0.00 0.00 0.98 0.00 0.68 0.00 0.87 0.00 0.00 0.98 0.00
Uniform Del: 0.0 0.0 0.0 17.4 0.0 14.0 0.0 16.6 0.0 0.0 18.0 0.0
IncrementDel: 0.0 0.0 0.0 17.5 0.0 2.7 0.0 5.6 0.0 0.0 17.6 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 0.0 0.0 0.0 34.8 0.0 16.7 0.0 22.2 0.0 0.0 35.6 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 34.8 0.0 16.7 0.0 22.2 0.0 0.0 35.6 0.0
LOS by Move: A A A C A B A C A A D A
HCM2kAvgQ: 0 0 0 23 0 9 0 16 0 0 23 0

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.885
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 22.9
Optimal Cycle: 73 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include), Min. Green (4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4), Lanes (0, 1, 0, 0, 2, 0, 1, 0, 0, 1, 1, 0, 2, 1, 0, 2, 0, 1, 1, 0)

Volume Module: >> Count Date: 4 Nov 2009 << 4:45 - 5:45 PM
Base Vol: 28 15 267 254 9 2 42 1314 17 78 1109 214
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 30 16 286 272 10 2 45 1406 18 83 1187 229
Added Vol: 0 0 0 0 0 0 0 0 80 0 0 510 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 30 16 286 272 10 2 45 1486 18 83 1697 229
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 30 16 286 272 10 2 45 1486 18 83 1697 229
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 30 16 286 272 10 2 45 1486 18 83 1697 229
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: 30 16 286 272 10 2 45 1486 18 83 1697 229

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 0.73 0.93 0.93 0.83 0.93 0.89 0.89 0.90 0.91 0.91
Lanes: 0.65 0.35 2.00 0.97 0.03 1.00 1.00 2.96 0.04 2.00 1.76 0.24
Final Sat.: 1174 629 2786 1716 61 1583 1769 5012 61 3432 3061 413

Capacity Analysis Module:
Vol/Sat: 0.03 0.03 0.10 0.16 0.16 0.00 0.03 0.30 0.30 0.02 0.55 0.55
Crit Moves: ****
Green/Cycle: 0.11 0.11 0.11 0.17 0.17 0.17 0.05 0.57 0.57 0.10 0.61 0.61
Volume/Cap: 0.23 0.23 0.91 0.91 0.91 0.01 0.51 0.52 0.52 0.25 0.91 0.91
Uniform Del: 32.3 32.3 35.0 32.4 32.4 27.3 37.0 10.7 10.7 33.5 13.5 13.5
IncrementDel: 0.6 0.6 28.1 28.4 28.4 0.0 4.8 0.2 0.2 0.4 6.1 6.1
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 32.8 32.8 63.1 60.7 60.7 27.3 41.8 10.9 10.9 34.0 19.6 19.6
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: 32.8 32.8 63.1 60.7 60.7 27.3 41.8 10.9 10.9 34.0 19.6 19.6
LOS by Move: C C E E E C D B C B B
HCM2kAvgQ: 1 1 7 11 11 0 2 9 9 1 26 26

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.775
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 21.8
Optimal Cycle: 44 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include), Min. Green (4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4), Lanes (1, 0, 0, 1, 0, 1, 1, 0, 0, 1, 1, 0, 1, 0, 2, 0, 1)

Volume Module: >> Count Date: 7 Oct 2009 << 4:30 - 5:30 pm
Base Vol: 95 32 58 428 30 128 239 885 55 26 833 316
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 102 34 62 458 32 137 256 947 59 28 891 338
Added Vol: 0 0 0 0 0 0 0 0 80 0 0 510 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 102 34 62 458 32 137 256 1027 59 28 1401 338
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: 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 Volume: 102 34 62 458 32 137 256 1027 59 28 1401 338
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 102 34 62 458 32 137 256 1027 59 28 1401 338
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: 102 34 62 458 32 137 256 1027 59 28 1401 338

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.88 0.88 0.94 0.94 0.83 0.93 0.92 0.92 0.93 0.93 0.83
Lanes: 1.00 0.36 0.64 1.87 0.13 1.00 1.00 1.89 0.11 1.00 2.00 1.00
Final Sat.: 1769 598 1084 3323 233 1583 1769 3319 190 1769 3538 1583

Capacity Analysis Module:
Vol/Sat: 0.06 0.06 0.06 0.14 0.14 0.09 0.14 0.31 0.31 0.02 0.40 0.21
Crit Moves: ****
Green/Cycle: 0.07 0.07 0.07 0.18 0.18 0.18 0.19 0.60 0.60 0.10 0.51 0.51
Volume/Cap: 0.77 0.77 0.77 0.77 0.77 0.49 0.77 0.51 0.51 0.16 0.77 0.42
Uniform Del: 36.4 36.4 36.4 31.4 31.4 29.6 30.9 9.2 9.2 33.1 15.8 12.1
IncrementDel: 24.5 25.2 25.2 6.0 6.0 1.3 10.9 0.2 0.2 0.4 2.2 0.4
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 60.9 61.5 61.5 37.3 37.3 30.9 41.8 9.4 9.4 33.6 18.0 12.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 60.9 61.5 61.5 37.3 37.3 30.9 41.8 9.4 9.4 33.6 18.0 12.5
LOS by Move: E E E D D C D A A C B B
HCM2kAvgQ: 4 4 4 8 8 4 8 8 8 1 16 5

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

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

Intersection #6 Bay Rd. & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.646
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 14.5
Optimal Cycle: 30 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Permitted, Protected), Rights (Include, Ovl), Min. Green, Lanes.

Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 57 8 180 55 31 3 5 819 90 200 891 47
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 61 9 193 59 33 3 5 876 96 214 953 50
Added Vol: 2 0 0 0 0 0 0 0 80 2 0 510 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 63 9 193 59 33 3 5 956 98 214 1463 50
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: 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 Volume: 63 9 193 59 33 3 5 956 98 214 1463 50
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 63 9 193 59 33 3 5 956 98 214 1463 50
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: 63 9 193 59 33 3 5 956 98 214 1463 50

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.81 0.81 0.81 0.68 0.68 0.68 0.87 0.87 0.87 0.93 0.93 0.93
Lanes: 0.24 0.03 0.73 0.62 0.35 0.03 0.01 1.80 0.19 1.00 1.93 0.07
Final Sat.: 366 50 1118 797 449 43 17 2984 307 1769 3403 117

Capacity Analysis Module:
Vol/Sat: 0.17 0.17 0.17 0.07 0.07 0.07 0.32 0.32 0.32 0.12 0.43 0.43
Crit Moves: ****
Green/Cycle: 0.27 0.27 0.27 0.27 0.27 0.27 0.50 0.50 0.50 0.19 0.68 0.68
Volume/Cap: 0.65 0.65 0.65 0.28 0.28 0.28 0.65 0.65 0.65 0.64 0.63 0.63
Uniform Del: 26.0 26.0 26.0 23.3 23.3 23.3 14.9 14.9 14.9 30.0 7.0 7.0
IncrementDel: 3.6 3.6 3.6 0.4 0.4 0.4 0.9 0.9 0.9 4.3 0.5 0.5
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 29.7 29.7 29.7 23.7 23.7 23.7 15.8 15.8 15.8 34.4 7.5 7.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 29.7 29.7 29.7 23.7 23.7 23.7 15.8 15.8 15.8 34.4 7.5 7.5
LOS by Move: C C C C C C B B B C A A
HCM2kAvgQ: 7 7 7 2 2 2 11 11 11 6 11 11

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)
Cycle (sec): 110 Critical Vol./Cap. (X): 0.999
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 45.4
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Protected), Rights (Include, Ovl), Min. Green, Lanes.

Volume Module: >> Count Date: 18 Nov 2009 << 5:00 - 6:00 p.m.
Base Vol: 0 426 548 408 269 0 0 0 0 515 0 447
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 0 456 586 437 288 0 0 0 0 551 0 478
Added Vol: 0 58 45 37 11 0 0 0 0 127 0 386
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 514 631 474 299 0 0 0 0 678 0 864
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: 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 Volume: 0 514 631 474 299 0 0 0 0 678 0 864
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 514 631 474 299 0 0 0 0 678 0 864
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: 0 514 631 474 299 0 0 0 0 678 0 864

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

Capacity Analysis Module:
Vol/Sat: 0.00 0.27 0.39 0.26 0.16 0.00 0.00 0.00 0.00 0.38 0.00 0.54
Crit Moves: ****
Green/Cycle: 0.00 0.27 0.65 0.26 0.53 0.00 0.00 0.00 0.00 0.38 0.00 0.64
Volume/Cap: 0.00 1.00 0.60 1.00 0.29 0.00 0.00 0.00 0.00 1.00 0.00 0.84
Uniform Del: 0.0 40.1 11.3 40.5 14.2 0.0 0.0 0.0 0.0 34.3 0.0 15.5
IncrementDel: 0.0 39.5 1.0 41.1 0.2 0.0 0.0 0.0 0.0 34.4 0.0 6.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Delay/Veh: 0.0 79.6 12.3 81.7 14.4 0.0 0.0 0.0 0.0 68.7 0.0 21.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 79.6 12.3 81.7 14.4 0.0 0.0 0.0 0.0 68.7 0.0 21.6
LOS by Move: A E B F B A A A A E A C
HCM2kAvgQ: 0 24 13 22 5 0 0 0 0 30 0 25

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.238
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 122.5
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 4:45 - 5:45 PM
Base Vol: 362 664 1 0 2199 108 36 13 1424 44 105 8
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.03 0.83 0.90 1.03 0.83 0.91 0.91 0.88 0.93 0.93 0.83

Capacity Analysis Module:
Vol/Sat: 0.23 0.17 0.00 0.01 0.46 0.23 0.04 0.04 0.46 0.21 0.14 0.12
Crit Moves: ****
Green/Cycle: 0.18 0.45 0.62 0.10 0.37 0.37 0.19 0.19 0.37 0.17 0.17 0.27

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.849
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 25.1
Optimal Cycle: 93 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 7 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 129 6 49 73 5 73 130 1351 5 20 553 67
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.60 0.60 0.60 0.74 0.74 0.74 0.93 0.93 0.93 0.93 0.93 0.93

Capacity Analysis Module:
Vol/Sat: 0.17 0.17 0.17 0.12 0.12 0.12 0.08 0.45 0.45 0.01 0.52 0.52
Crit Moves: ****
Green/Cycle: 0.20 0.20 0.20 0.20 0.20 0.20 0.10 0.65 0.65 0.06 0.61 0.61

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

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

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.830
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 15.9
Optimal Cycle: 87 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 columns of performance metrics (Base Vol, Growth Adj, Initial Bse, etc.).

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc.

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

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

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.676
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 9.2
Optimal Cycle: 55 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 columns of performance metrics (Base Vol, Growth Adj, Initial Bse, etc.).

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc.

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 1.116
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 65.3
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Ovl, Include), Min. Green (5, 5, 5, 5), Lanes (2, 0, 1, 0, 1, 1, 0, 2, 1, 0, 1, 0, 1, 1, 0)

Volume Module: >> Count Date: 7 Oct 2009 << 4:45 - 5:45 PM
Base Vol: 248 170 55 38 166 219 323 1436 339 102 975 34
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 265 182 59 41 178 234 346 1537 363 109 1043 36
Added Vol: 0 0 0 0 0 0 9 6 149 0 0 1015 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 265 182 59 41 178 243 352 1686 363 109 2058 36
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: 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 Volume: 265 182 59 41 178 243 352 1686 363 109 2058 36
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 265 182 59 41 178 243 352 1686 363 109 2058 36
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: 265 182 59 41 178 243 352 1686 363 109 2058 36

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.98 0.83 0.93 0.98 0.83 0.93 0.87 0.87 0.93 0.93 0.93
Lanes: 2.00 1.00 1.00 1.00 1.00 1.00 1.00 2.47 0.53 1.00 1.97 0.03
Final Sat.: 3432 1862 1583 1769 1862 1583 1769 4070 876 1769 3466 61

Capacity Analysis Module:
Vol/Sat: 0.08 0.10 0.04 0.02 0.10 0.15 0.20 0.41 0.41 0.06 0.59 0.59
Crit Moves: ****
Green/Cycle: 0.09 0.09 0.18 0.09 0.09 0.26 0.18 0.62 0.62 0.09 0.53 0.53
Volume/Cap: 0.88 1.12 0.21 0.27 1.12 0.58 1.12 0.67 0.67 0.67 1.12 1.12
Uniform Del: 54.1 54.7 41.9 51.4 54.9 38.4 49.3 14.9 14.9 52.7 28.1 28.1
IncrementDel: 25.0 105 0.4 1.0 106 2.1 85.6 0.6 0.6 10.3 60.2 60.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 79.1 160 42.3 52.3 161 40.6 135.0 15.5 15.5 63.0 88.2 88.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 79.1 160 42.3 52.3 161 40.6 135.0 15.5 15.5 63.0 88.2 88.2
LOS by Move: E F D D F D F B B E F F
HCM2kAvgQ: 8 12 2 2 12 8 21 18 18 5 58 58

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.807
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 21.7
Optimal Cycle: 73 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include), Min. Green (0, 0, 0, 5, 5, 5), Lanes (0, 0, 0, 0, 1, 1, 0, 2, 0, 0, 0, 0, 2, 0, 1)

Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 0 0 0 416 0 54 40 1436 0 0 1061 255
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 0 0 0 445 0 58 43 1537 0 0 1135 273
Added Vol: 0 0 0 4 0 0 0 70 0 0 244 7
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 449 0 58 43 1607 0 0 1379 280
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 0 0 0 449 0 58 43 1607 0 0 1379 280
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 449 0 58 43 1607 0 0 1379 280
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 0 0 449 0 58 43 1607 0 0 1379 280

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.93 1.00 0.83 0.93 0.93 1.00 1.00 0.93 0.83
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 0 0 0 1769 0 1583 1769 3538 0 0 3538 1583

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.25 0.00 0.04 0.02 0.45 0.00 0.00 0.39 0.18
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.31 0.00 0.31 0.07 0.56 0.00 0.00 0.49 0.49
Volume/Cap: 0.00 0.00 0.00 0.81 0.00 0.12 0.34 0.81 0.00 0.00 0.79 0.36
Uniform Del: 0.0 0.0 0.0 28.3 0.0 21.9 39.9 15.7 0.0 0.0 19.0 14.1
IncrementDel: 0.0 0.0 0.0 8.5 0.0 0.1 1.7 2.5 0.0 0.0 2.5 0.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Delay/Veh: 0.0 0.0 0.0 36.8 0.0 22.0 41.5 18.3 0.0 0.0 21.5 14.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 36.8 0.0 22.0 41.5 18.3 0.0 0.0 21.5 14.3
LOS by Move: A A A D A C D B A A C B
HCM2kAvgQ: 0 0 0 14 0 1 2 21 0 0 18 5

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

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

Intersection #14 Durham St. & Willow Rd.
Cycle (sec): 105 Critical Vol./Cap. (X): 0.831
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 18.2
Optimal Cycle: 70 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Protected), Rights (Include, Include, Include, Include), Min. Green (4, 4, 4, 4), Lanes (1, 0, 0, 1, 0, 0, 1, 0, 0, 1, 0, 1, 0, 0, 1, 0)

Volume Module: >> Count Date: 1 Oct 2009 << 4:00 - 5:00 PM
Base Vol: 33 7 85 122 5 31 11 1125 10 90 818 51
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 35 7 91 131 5 33 12 1204 11 96 875 55
Added Vol: 0 0 0 0 0 0 0 0 70 0 0 244 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 35 7 91 131 5 33 12 1274 11 96 1119 55
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: 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 Volume: 35 7 91 131 5 33 12 1274 11 96 1119 55
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 35 7 91 131 5 33 12 1274 11 96 1119 55
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: 35 7 91 131 5 33 12 1274 11 96 1119 55

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.46 0.84 0.84 0.53 0.53 0.83 0.93 0.93 0.93 0.93 0.97 0.97
Lanes: 1.00 0.08 0.92 0.96 0.04 1.00 1.00 1.98 0.02 1.00 0.95 0.05
Final Sat.: 868 122 1481 975 40 1583 1769 3505 29 1769 1763 86

Capacity Analysis Module:
Vol/Sat: 0.04 0.06 0.06 0.13 0.13 0.02 0.01 0.36 0.36 0.05 0.63 0.63
Crit Moves: ****
Green/Cycle: 0.16 0.16 0.16 0.16 0.16 0.16 0.04 0.68 0.68 0.10 0.74 0.74
Volume/Cap: 0.26 0.39 0.39 0.86 0.86 0.13 0.17 0.54 0.54 0.54 0.86 0.86
Uniform Del: 39.0 39.8 39.8 43.2 43.2 38.2 48.9 8.7 8.7 44.8 9.8 9.8
IncrementDel: 1.0 1.0 1.0 34.6 34.6 0.2 1.2 0.2 0.2 3.2 5.7 5.7
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 40.0 40.9 40.9 77.8 77.8 38.5 50.1 8.9 8.9 48.1 15.5 15.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 40.0 40.9 40.9 77.8 77.8 38.5 50.1 8.9 8.9 48.1 15.5 15.5
LOS by Move: D D D E E D D A A D B B
HCM2kAvgQ: 1 3 3 7 7 1 1 11 11 4 29 29

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

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

Intersection #15 Coleman Ave. & Willow Rd.
Cycle (sec): 105 Critical Vol./Cap. (X): 0.821
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 13.0
Optimal Cycle: 68 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Protected), Rights (Include, Include, Include, Include), Min. Green (4, 4, 4, 4), Lanes (0, 0, 1, 0, 0, 0, 1, 0, 0, 1, 0, 1, 0, 0, 1, 0)

Volume Module: >> Count Date: 30 Sep 2009 << 5:00 - 6:00 PM
Base Vol: 12 11 7 92 6 35 24 1083 6 5 795 109
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 13 12 7 98 6 37 26 1159 6 5 851 117
Added Vol: 0 0 0 0 0 0 0 0 70 0 0 244 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 13 12 7 98 6 37 26 1229 6 5 1095 117
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: 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 Volume: 13 12 7 98 6 37 26 1229 6 5 1095 117
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 13 12 7 98 6 37 26 1229 6 5 1095 117
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: 13 12 7 98 6 37 26 1229 6 5 1095 117

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.86 0.86 0.86 0.73 0.73 0.73 0.13 0.98 0.98 0.12 0.97 0.97
Lanes: 0.40 0.37 0.23 0.69 0.05 0.26 1.00 0.99 0.01 1.00 0.90 0.10
Final Sat.: 654 599 381 961 63 366 255 1850 10 235 1659 177

Capacity Analysis Module:
Vol/Sat: 0.02 0.02 0.02 0.10 0.10 0.10 0.10 0.66 0.66 0.02 0.66 0.66
Crit Moves: ****
Green/Cycle: 0.12 0.12 0.12 0.12 0.12 0.12 0.81 0.81 0.81 0.81 0.81 0.81
Volume/Cap: 0.16 0.16 0.16 0.82 0.82 0.82 0.12 0.82 0.82 0.03 0.82 0.82
Uniform Del: 41.0 41.0 41.0 44.8 44.8 44.8 2.1 5.7 5.7 2.0 5.7 5.7
IncrementDel: 0.4 0.4 0.4 25.8 25.8 25.8 0.3 3.8 3.8 0.1 3.6 3.6
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 41.4 41.4 41.4 70.6 70.6 70.6 2.4 9.5 9.5 2.0 9.3 9.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 41.4 41.4 41.4 70.6 70.6 70.6 2.4 9.5 9.5 2.0 9.3 9.3
LOS by Move: D D D E E E A A A A A A
HCM2kAvgQ: 1 1 1 7 7 7 0 25 25 0 24 24

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

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

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.763
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 12.0
Optimal Cycle: 55 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM. Table with 12 columns for volume counts and 12 columns for adjustment factors.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.427
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 180.6
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 4:45 - 5:45 PM. Table with 12 columns for volume counts and 12 columns for adjustment factors.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

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

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

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 150 Critical Vol./Cap. (X): 1.482
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 214.3
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 377 968 0 0 3488 127 60 0 1667 0 0 0
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.89 1.00 1.00 0.89 0.83 0.90 1.00 0.73 1.00 1.00 1.00

Capacity Analysis Module:
Vol/Sat: 0.12 0.23 0.00 0.00 0.84 0.18 0.02 0.00 0.43 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.08 0.64 0.00 0.00 0.56 0.56 0.29 0.00 0.29 0.00 0.00 0.00

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

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

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 0.727
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.6
Optimal Cycle: 58 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 0 0 0 120 0 99 20 1599 0 0 454 16
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.90 1.00 0.90 0.93 0.93 1.00 1.00 0.93 0.93

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.14 0.00 0.14 0.01 0.49 0.00 0.00 0.19 0.19
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.20 0.00 0.20 0.16 0.67 0.00 0.00 0.51 0.51

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

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

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap. (X): 0.693
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 16.2
Optimal Cycle: 85 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Include), Rights (Min. Green, Lanes).

Volume Module:
Base Vol: 35 31 12 19 29 82 26 1579 19 18 527 13
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 37 33 13 20 31 88 28 1690 20 19 564 14
Added Vol: 0 0 0 0 0 0 0 0 19 0 0 150 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 37 33 13 20 31 88 28 1709 20 19 714 14
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: 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 Volume: 37 33 13 20 31 88 28 1709 20 19 714 14
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 37 33 13 20 31 88 28 1709 20 19 714 14
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 37 33 13 20 31 88 28 1709 20 19 714 14

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.96 0.96 0.96 0.91 0.91 0.91 0.95 0.95 0.95 0.95 0.95 0.95
Lanes: 0.45 0.40 0.15 0.15 0.22 0.63 1.00 1.98 0.02 1.00 1.96 0.04
Final Sat.: 816 723 280 252 385 1089 1805 3560 42 1805 3530 69

Capacity Analysis Module:
Vol/Sat: 0.05 0.05 0.05 0.08 0.08 0.08 0.02 0.48 0.48 0.01 0.20 0.20
Crit Moves: ****
Green/Cycle: 0.07 0.06 0.06 0.11 0.11 0.11 0.14 0.66 0.66 0.05 0.57 0.57
Volume/Cap: 0.68 0.72 0.72 0.72 0.75 0.75 0.11 0.72 0.72 0.21 0.35 0.35
Uniform Del: 45.6 46.0 46.0 42.9 43.3 43.3 37.4 10.8 10.8 45.6 11.4 11.4
IncrementDel: 14.9 19.9 19.9 12.6 15.1 15.1 0.2 1.1 1.1 1.2 0.1 0.1
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 60.5 65.8 65.8 55.5 58.3 58.3 37.6 11.9 11.9 46.8 11.5 11.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 60.5 65.8 65.8 55.5 58.3 58.3 37.6 11.9 11.9 46.8 11.5 11.5
LOS by Move: E E E E E E D B B D B B B
HCM2kAvgQ: 4 4 4 6 6 6 1 19 19 1 6 6

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

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

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap. (X): 0.868
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 35.0
Optimal Cycle: 94 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Include), Rights (Min. Green, Lanes).

Volume Module:
Base Vol: 150 219 345 94 262 110 93 1291 87 119 540 49
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 161 234 369 101 280 118 100 1381 93 127 578 52
Added Vol: 0 0 0 0 0 0 0 0 19 0 0 150 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 161 234 369 101 280 118 100 1400 93 127 728 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: 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 Volume: 161 234 369 101 280 118 100 1400 93 127 728 52
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 161 234 369 101 280 118 100 1400 93 127 728 52
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 161 234 369 101 280 118 100 1400 93 127 728 52

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.98 0.98 0.85 0.95 1.00 0.85 0.95 0.94 0.94 0.95 0.94 0.94
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.88 0.12 1.00 1.87 0.13
Final Sat.: 1862 1862 1615 1805 1900 1615 1805 3355 223 1805 3334 240

Capacity Analysis Module:
Vol/Sat: 0.09 0.13 0.23 0.06 0.15 0.07 0.06 0.42 0.42 0.07 0.22 0.22
Crit Moves: ****
Green/Cycle: 0.12 0.26 0.26 0.06 0.21 0.21 0.11 0.48 0.48 0.08 0.45 0.45
Volume/Cap: 0.71 0.48 0.87 0.87 0.71 0.35 0.49 0.87 0.87 0.87 0.49 0.49
Uniform Del: 42.3 31.0 35.2 46.4 36.9 33.9 41.6 23.1 23.1 45.4 19.4 19.4
IncrementDel: 4.4 0.4 17.0 45.5 6.1 0.6 1.8 5.0 5.0 38.5 0.2 0.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 46.7 31.5 52.2 91.9 43.0 34.6 43.4 28.1 28.1 83.9 19.7 19.7
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: 46.7 31.5 52.2 91.9 43.0 34.6 43.4 28.1 28.1 83.9 19.7 19.7
LOS by Move: D C D F D C D C C F B B B
HCM2kAvgQ: 6 6 14 5 9 3 3 24 24 6 9 9

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

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

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap. (X): 0.729
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 23.2
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Protected, Permitted), Rights (Include, Include, Include, Include). Includes Min. Green and Lanes.

Volume Module:
Base Vol: 78 109 59 17 76 27 29 1264 78 44 793 17
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 83 117 63 18 81 29 31 1352 83 47 849 18
Added Vol: 0 0 0 0 0 0 0 0 19 0 0 150 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 83 117 63 18 81 29 31 1371 83 47 999 18
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: 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 Volume: 83 117 63 18 81 29 31 1371 83 47 999 18
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 83 117 63 18 81 29 31 1371 83 47 999 18
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: 83 117 63 18 81 29 31 1371 83 47 999 18

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 0.95 0.96 0.96 0.96 0.95 0.94 0.94 0.95 0.95 0.95
Lanes: 0.32 0.44 0.24 0.14 0.63 0.23 1.00 1.89 0.11 1.00 1.96 0.04
Final Sat.: 574 802 434 259 1159 412 1805 3372 205 1805 3535 64

Capacity Analysis Module:
Vol/Sat: 0.15 0.15 0.15 0.07 0.07 0.07 0.02 0.41 0.41 0.03 0.28 0.28
Crit Moves: ****
Green/Cycle: 0.20 0.20 0.20 0.09 0.09 0.09 0.09 0.55 0.55 0.05 0.51 0.51
Volume/Cap: 0.74 0.74 0.74 0.74 0.74 0.74 0.19 0.74 0.74 0.52 0.56 0.56
Uniform Del: 37.8 37.8 37.8 44.1 44.1 44.1 42.1 17.1 17.1 46.3 16.8 16.8
IncrementDel: 8.1 8.1 8.1 15.6 15.6 15.6 0.6 1.5 1.5 5.4 0.4 0.4
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 45.9 45.9 45.9 59.7 59.7 59.7 42.7 18.7 18.7 51.7 17.2 17.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 45.9 45.9 45.9 59.7 59.7 59.7 42.7 18.7 18.7 51.7 17.2 17.2
LOS by Move: D D D E E E D B B D B B
HCM2kAvgQ: 9 9 9 6 6 6 1 19 19 2 11 11

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

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

Intersection #23 University & Bell

Cycle (sec): 90 Critical Vol./Cap. (X): 0.572
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 7.7
Optimal Cycle: 86 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Permitted, Permitted, Permitted, Permitted), Rights (Include, Include, Include, Include). Includes Min. Green and Lanes.

Volume Module:
Base Vol: 60 83 38 11 68 22 42 1322 87 37 787 22
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 64 89 41 12 73 24 45 1415 93 40 842 24
Added Vol: 0 0 0 0 0 0 0 0 19 0 0 150 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 64 89 41 12 73 24 45 1434 93 40 992 24
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 64 89 41 12 73 24 45 1434 93 40 992 24
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 64 89 41 12 73 24 45 1434 93 40 992 24
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: 64 89 41 12 73 24 45 1434 93 40 992 24

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.85 0.85 0.85 0.94 0.94 0.94 0.25 0.94 0.94 0.13 0.95 0.95
Lanes: 0.33 0.46 0.21 0.11 0.67 0.22 1.00 1.88 0.12 1.00 1.95 0.05
Final Sat.: 536 742 340 195 1205 390 475 3359 218 241 3516 83

Capacity Analysis Module:
Vol/Sat: 0.12 0.12 0.12 0.06 0.06 0.06 0.09 0.43 0.43 0.16 0.28 0.28
Crit Moves: ****
Green/Cycle: 0.21 0.21 0.21 0.21 0.21 0.21 0.75 0.75 0.75 0.75 0.75 0.75
Volume/Cap: 0.57 0.57 0.57 0.29 0.29 0.29 0.13 0.57 0.57 0.22 0.38 0.38
Uniform Del: 32.0 32.0 32.0 29.9 29.9 29.9 3.2 5.1 5.1 3.5 4.0 4.0
IncrementDel: 2.3 2.3 2.3 0.4 0.4 0.4 0.2 0.3 0.3 0.6 0.1 0.1
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 34.3 34.3 34.3 30.4 30.4 30.4 3.4 5.4 5.4 4.1 4.1 4.1
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: 34.3 34.3 34.3 30.4 30.4 30.4 3.4 5.4 5.4 4.1 4.1 4.1
LOS by Move: C C C C C C A A A A A A
HCM2kAvgQ: 6 6 6 3 3 3 0 10 10 1 5 5

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

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

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap. (X): 0.905
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 39.2
Optimal Cycle: 110 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 12 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

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

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 90 Critical Vol./Cap. (X): 0.502
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 14.0
Optimal Cycle: 82 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 12 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue, Note).

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

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

Intersection #26 University & SB US 101

Cycle (sec): 90 Critical Vol./Cap. (X): 0.567
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 27.1
Optimal Cycle: 180 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ for Capacity Analysis Module.

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

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

Intersection #27 University Ave. & Woodland

Cycle (sec): 110 Critical Vol./Cap. (X): 0.928
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 50.0
Optimal Cycle: 130 Level Of Service: D

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ for Capacity Analysis Module.

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

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

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.651
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 35.3
Optimal Cycle: 85 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module:
Base Vol: 30 377 86 82 384 76 59 328 23 71 442 88
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 32 403 92 88 411 81 63 351 25 76 473 94
Added Vol: 0 40 7 16 116 27 3 1 0 56 11 12
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 32 443 99 104 527 108 66 352 25 132 484 106
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: 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 Volume: 32 443 99 104 527 108 66 352 25 132 484 106
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 32 443 99 104 527 108 66 352 25 132 484 106
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 32 443 99 104 527 108 66 352 25 132 484 106

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.92 0.92 0.92 0.92 0.92 0.95 0.94 0.94 0.95 0.92 0.92
Lanes: 0.11 1.55 0.34 0.28 1.43 0.29 1.00 1.87 0.13 1.00 1.64 0.36
Final Sat.: 196 2706 604 492 2500 514 1805 3340 234 1805 2881 632

Capacity Analysis Module:
Vol/Sat: 0.16 0.16 0.16 0.21 0.21 0.21 0.04 0.11 0.11 0.07 0.17 0.17
Crit Moves: ****
Green/Cycle: 0.25 0.25 0.25 0.32 0.32 0.32 0.06 0.19 0.19 0.13 0.26 0.26
Volume/Cap: 0.65 0.65 0.65 0.65 0.65 0.65 0.65 0.57 0.57 0.57 0.65 0.65
Uniform Del: 33.5 33.5 33.5 29.0 29.0 29.0 46.2 37.1 37.1 40.9 33.1 33.1
IncrementDel: 1.7 1.7 1.7 1.4 1.4 1.4 14.0 1.2 1.2 3.3 1.7 1.7
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 35.2 35.2 35.2 30.3 30.3 30.3 60.2 38.2 38.2 44.2 34.8 34.8
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: 35.2 35.2 35.2 30.3 30.3 30.3 60.2 38.2 38.2 44.2 34.8 34.8
LOS by Move: D D D C C C E D D C C C
HCM2kAvgQ: 9 9 9 11 11 11 3 6 6 5 9 9

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

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

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.145
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 87.2
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module:5:00 - 6:00 AM
Base Vol: 10 932 0 0 2235 16 334 0 76 0 0 0
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 11 997 0 0 2391 17 357 0 81 0 0 0
Added Vol: 38 605 0 0 84 0 617 0 86 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 49 1602 0 0 2475 17 974 0 167 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: 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 Volume: 49 1602 0 0 2475 17 974 0 167 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 49 1602 0 0 2475 17 974 0 167 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: 49 1602 0 0 2475 17 974 0 167 0 0 0

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

Capacity Analysis Module:
Vol/Sat: 0.03 0.32 0.00 0.00 0.49 0.01 0.55 0.00 0.11 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.04 0.46 0.00 0.00 0.42 0.42 0.47 0.00 0.47 0.00 0.00 0.00
Volume/Cap: 0.72 0.69 0.00 0.00 1.16 0.03 1.16 0.00 0.22 0.00 0.00 0.00
Uniform Del: 61.8 28.0 0.0 0.0 37.8 22.2 34.2 0.0 20.1 0.0 0.0 0.0
IncrementDel: 30.3 0.9 0.0 0.0 79.0 0.0 86.4 0.0 0.2 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00
Delay/Veh: 92.1 28.9 0.0 0.0 117 22.2 120.6 0.0 20.3 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: 92.1 28.9 0.0 0.0 117 22.2 120.6 0.0 20.3 0.0 0.0 0.0
LOS by Move: F C A A F C F A C A A A
HCM2kAvgQ: 3 19 0 0 54 0 58 0 4 0 0 0

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

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

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.742
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 18.1
Optimal Cycle: 60 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ for Capacity Analysis Module.

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

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

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.785
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 27.6
Optimal Cycle: 48 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ for Capacity Analysis Module.

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

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

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.671
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 29.5
Optimal Cycle: 33 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date (21 Oct 2009), and time range (5:00 - 6:00 PM). Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, and Adjustment. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 110 Critical Vol./Cap. (X): 0.819
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 42.4
Optimal Cycle: 85 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date (21 Oct 2009), and time range (5:00 - 6:00 PM). Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, and Adjustment. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

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

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec): 100 Critical Vol./Cap. (X): 0.929
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 36.4
Optimal Cycle: 125 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for movements (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: Table with 12 columns representing different traffic flow metrics and 12 rows of data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module: Table with 12 columns representing saturation flow metrics and 4 rows of data including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns representing capacity analysis metrics and 14 rows of data including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

 Scenario Report
 Scenario: Cumulative 2025 AM

Command: Long Term No Project I AM
 Volume: Long Term No Project I AM
 Geometry: Long Term No Project I AM
 Impact Fee: Default Impact Fee
 Trip Generation: Long Term No Project I AM
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Long Term No Project I AM

 Impact Analysis Report
 Level Of Service

Intersection		Base		Future		Change in	
		Del/ LOS	V/ Veh	Del/ LOS	V/ Veh		
# 1 Bayfront Exp. & Marsh Rd.	C	25.2	0.842	C	26.2	0.879	+ 0.975 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	16.9	0.700	D	42.3	1.054	+25.428 D/V
# 3 US 101 SB Ramps & Marsh Rd.	C	26.5	0.944	C	31.7	0.985	+ 5.106 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	D	41.1	0.901	D	35.6	0.932	-5.434 D/V
# 5 Bohannon/ Florence & Marsh Rd.	C	20.8	0.620	B	15.7	0.647	-5.128 D/V
# 6 Bay Rd. & Marsh Rd.	B	17.4	0.644	B	17.4	0.706	+ 0.053 D/V
# 7 Middlefield at Marsh (Town of	C	29.8	0.669	C	27.0	0.766	-2.790 D/V
# 8 Bayfront Exp. & Willow Rd.	C	28.6	0.668	D	35.4	0.750	+ 6.766 D/V
# 9 Hamilton Ave. & Willow Rd.	C	23.7	0.613	C	22.4	0.647	-1.360 D/V
# 10 Ivy Dr. & Willow Rd.	B	18.7	0.567	C	21.3	0.643	+ 2.627 D/V
# 11 O'Brien Dr. & Willow Rd.	B	15.4	0.508	B	14.7	0.552	-0.676 D/V
# 12 Newbridge St. & Willow Rd.	E	59.2	0.990	E	62.5	1.028	+ 3.286 D/V
# 13 Bay Rd. & Willow Rd.	C	21.6	0.760	C	22.2	0.818	+ 0.602 D/V
# 14 Durham St. & Willow Rd.	D	35.1	0.782	B	15.6	0.844	-19.481 D/V
# 15 Coleman Ave. & Willow Rd.	B	15.3	0.784	B	18.8	0.868	+ 3.487 D/V
# 16 Gilbert Ave. & Willow Rd.	B	15.7	0.726	B	18.0	0.836	+ 2.327 D/V
# 17 Middlefield Rd. & Willow Rd.	F	114.7	1.038	F	123.8	1.225	+ 9.150 D/V
# 18 Bayfront Exp. & University Ave	C	32.7	0.882	D	35.1	0.905	+ 2.452 D/V
# 19 O'Brien Dr. & University Ave.	A	6.8	0.600	A	6.8	0.611	-0.015 D/V
# 20 University & Kavanaugh	B	14.4	0.617	B	14.2	0.623	-0.161 D/V
# 21 University & Bay	C	29.3	0.724	C	29.0	0.730	-0.230 D/V
# 22 University & Runnymede	C	21.7	0.687	C	21.6	0.693	-0.129 D/V
# 23 University & Bell	A	7.7	0.270	A	7.4	0.289	-0.275 D/V
# 24 University & Donohoe	D	51.0	1.014	D	53.5	1.030	+ 2.541 D/V
# 25 NB 101 & Donohoe St	B	9.1	0.418	B	9.3	0.436	+ 0.130 D/V

Intersection		Base		Future		Change in
		Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C	
# 26 University & SB US 101	B	18.1	0.704	B 18.3	0.718	+ 0.243 D/V
# 27 University Ave. & Woodland	D	50.1	0.977	D 52.3	0.991	+ 2.164 D/V
# 28 Middlefield Rd. & University A	D	38.2	0.805	D 46.5	0.888	+ 8.251 D/V
# 29 Bayfront Exp. & Chrysler Dr.	A	7.6	0.640	B 17.5	0.738	+ 9.814 D/V
# 30 Bayfront Exp. & Chilco St.	B	17.8	0.650	C 20.0	0.675	+ 2.230 D/V
# 31 Middlefield Rd. & Ravenswood A	C	23.4	0.664	C 25.7	0.731	+ 2.288 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	29.2	0.515	C 25.7	0.540	-3.470 D/V
# 33 Middlefield Rd and Lytton Ave	C	31.3	0.652	C 32.7	0.696	+ 1.391 D/V
# 34 Bayfront Expy. and Facebook We	A	1.4	0.549	A 1.5	0.593	+ 0.123 D/V

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

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.879
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 26.2
Optimal Cycle: 113 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	3	0	0	1	0	1	0	1	0	0	2	0

Volume Module: >> Count Date: 22 Oct 2009 << 7:45 - 8:45 AM

Base Vol:	2297	189	23	7	58	148	182	20	997	7	19	5
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Initial Bse:	2619	215	26	8	66	169	207	23	1137	8	22	6
Added Vol:	173	0	0	0	0	0	0	0	256	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2792	215	26	8	66	169	207	23	1393	8	22	6
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:	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 Volume:	2792	215	26	8	66	169	207	23	1393	8	22	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2792	215	26	8	66	169	207	23	1393	8	22	6
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:	2792	215	26	8	66	169	207	23	1393	8	22	6

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.96	0.96	0.93	0.93	0.83	0.94	0.94	0.73	0.95	0.95	0.95
Lanes:	3.00	0.89	0.11	0.22	1.78	1.00	0.90	0.10	2.00	0.23	0.61	0.16
Final Sat.:	5147	1633	199	379	3141	1583	1606	176	2786	407	1104	290

Capacity Analysis Module:

Vol/Sat:	0.54	0.13	0.13	0.02	0.02	0.11	0.13	0.13	0.50	0.02	0.02	0.02
Crit Moves:	****			****			****			****		
Green/Cycle:	0.61	0.61	0.61	0.12	0.12	0.12	0.14	0.14	0.75	0.04	0.04	0.04
Volume/Cap:	0.90	0.22	0.22	0.18	0.18	0.90	0.90	0.90	0.67	0.51	0.51	0.51
Uniform Del:	22.1	11.6	11.6	51.5	51.5	56.5	54.7	54.7	8.1	61.3	61.3	61.3
IncrementDel:	3.8	0.1	0.1	0.2	0.2	37.7	30.3	30.3	0.8	6.2	6.2	6.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	25.9	11.7	11.7	51.7	51.7	94.2	84.9	84.9	8.9	67.5	67.5	67.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.9	11.7	11.7	51.7	51.7	94.2	84.9	84.9	8.9	67.5	67.5	67.5
LOS by Move:	C	B	B	D	D	F	F	F	A	E	E	E
HCM2kAvgQ:	36	4	4	1	1	10	12	12	16	2	2	2

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 1.054
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 42.3
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	5	0	5	0	0	0	0	5	0	0	5	0
Lanes:	2	0	0	0	0	0	0	1	1	0	0	2

Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM

	Count	30 Sep 2009	7:30	8:30 AM
Base Vol:	818	0	289	0
Growth Adj:	1.14	1.14	1.14	1.14
Initial Bse:	933	0	329	0
Added Vol:	2	0	394	0
PasserByVol:	0	0	0	0
Initial Fut:	935	0	723	0
User Adj:	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00
PHF Volume:	935	0	723	0
Reduct Vol:	0	0	0	0
Reduced Vol:	935	0	723	0
PCE Adj:	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00
FinalVolume:	935	0	723	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	1.00	0.83	1.00	1.00	1.00	0.89	0.89	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.01	1.99	1.00	0.00
Final Sat.:	3432	0	1583	0	0	0	4	3375	1900	0

Capacity Analysis Module:

Vol/Sat:	0.27	0.00	0.46	0.00	0.00	0.00	0.51	0.51	0.00	0.00	0.31	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.43	0.00	0.43	0.00	0.00	0.00	0.48	0.48	0.00	0.00	0.48	0.00
Volume/Cap:	0.63	0.00	1.05	0.00	0.00	0.00	1.05	1.05	0.00	0.00	0.64	0.00
Uniform Del:	17.6	0.0	22.7	0.0	0.0	0.0	20.8	20.8	0.0	0.0	15.6	0.0
IncrementDel:	0.9	0.0	49.6	0.0	0.0	0.0	38.3	38.3	0.0	0.0	0.8	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00
Delay/Veh:	18.5	0.0	72.2	0.0	0.0	0.0	59.1	59.1	0.0	0.0	16.4	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	18.5	0.0	72.2	0.0	0.0	0.0	59.1	59.1	0.0	0.0	16.4	0.0
LOS by Move:	B	A	E	A	A	A	E	E	A	A	B	A
HCM2kAvgQ:	10	0	28	0	0	0	34	34	0	0	11	0

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.985
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 31.7
Optimal Cycle: 155 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	0	0	0	5	0	5	0	5	0	0	5	0
Lanes:	0	0	0	2	0	0	0	0	2	0	0	2

Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM

	Count	30 Sep 2009	7:30	8:30 AM
Base Vol:	0	0	879	0
Growth Adj:	1.14	1.14	1.14	1.14
Initial Bse:	0	0	1002	0
Added Vol:	0	0	221	0
PasserByVol:	0	0	0	0
Initial Fut:	0	0	1223	0
User Adj:	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00
PHF Volume:	0	0	1223	0
Reduct Vol:	0	0	0	0
Reduced Vol:	0	0	1223	0
PCE Adj:	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00
FinalVolume:	0	0	1223	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.90	1.00	0.83	1.00	0.93	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	1.00	0.00
Final Sat.:	0	0	0	3432	0	1583	0	3538	1900	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.36	0.00	0.42	0.00	0.32	0.00	0.00	0.48	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.43	0.00	0.43	0.00	0.48	0.00	0.00	0.48	0.00
Volume/Cap:	0.00	0.00	0.00	0.83	0.00	0.98	0.00	0.67	0.00	0.00	0.98	0.00
Uniform Del:	0.0	0.0	0.0	20.2	0.0	22.6	0.0	15.8	0.0	0.0	20.4	0.0
IncrementDel:	0.0	0.0	0.0	4.1	0.0	30.5	0.0	1.1	0.0	0.0	18.1	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Delay/Veh:	0.0	0.0	0.0	24.4	0.0	53.1	0.0	16.9	0.0	0.0	38.5	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	24.4	0.0	53.1	0.0	16.9	0.0	0.0	38.5	0.0
LOS by Move:	A	A	A	C	A	D	A	B	A	A	D	A
HCM2kAvgQ:	0	0	0	16	0	23	0	12	0	0	29	0

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.932
Loss Time (sec): 14 (Y+R=4.0 sec) Average Delay (sec/veh): 35.6
Optimal Cycle: 111 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include, Include, Include), Min. Green (4, 4, 4, 4), Lanes (0 1 0 0 2, 0 1 0 0 1, 1 0 2 1 0, 2 0 1 1 0)

Volume Module: >> Count Date: 8 Oct 2009 << 7:15 - 8:15 AM
Base Vol: 27 3 49 222 18 3 15 1131 29 268 1416 280
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 31 3 56 253 21 3 17 1289 33 306 1614 319
Added Vol: 0 0 0 0 0 0 0 0 199 0 0 90 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 31 3 56 253 21 3 17 1488 33 306 1704 319
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: 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 Volume: 31 3 56 253 21 3 17 1488 33 306 1704 319
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 31 3 56 253 21 3 17 1488 33 306 1704 319
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: 31 3 56 253 21 3 17 1488 33 306 1704 319

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.94 0.94 0.73 0.94 0.94 0.83 0.93 0.89 0.89 0.90 0.91 0.91
Lanes: 0.90 0.10 2.00 0.93 0.07 1.00 1.00 2.93 0.07 2.00 1.68 0.32
Final Sat.: 1604 178 2786 1647 134 1583 1769 4958 110 3432 2908 545

Capacity Analysis Module:
Vol/Sat: 0.02 0.02 0.02 0.15 0.15 0.00 0.01 0.30 0.30 0.09 0.59 0.59
Crit Moves: ****
Green/Cycle: 0.05 0.05 0.05 0.15 0.15 0.15 0.05 0.48 0.48 0.14 0.57 0.57
Volume/Cap: 0.38 0.38 0.40 1.02 1.02 0.01 0.19 0.62 0.62 0.62 1.02 1.02
Uniform Del: 36.8 36.8 36.8 34.0 34.0 28.9 36.5 15.4 15.4 32.3 17.0 17.0
IncrementDel: 2.7 2.7 1.9 60.3 60.3 0.0 1.1 0.5 0.5 2.5 25.5 25.5
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 39.5 39.5 38.7 94.2 94.2 28.9 37.5 15.9 15.9 34.8 42.5 42.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 39.5 39.5 38.7 94.2 94.2 28.9 37.5 15.9 15.9 34.8 42.5 42.5
LOS by Move: D D D F F C D B B C D D
HCM2kAvgQ: 1 1 1 12 12 0 1 11 11 5 37 37

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.647
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.7
Optimal Cycle: 30 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include, Include, Include), Min. Green (4, 4, 4, 4), Lanes (1 0 0 1 0, 1 1 0 0 1, 1 0 1 1 0, 1 0 2 0 1)

Volume Module: >> Count Date: 7 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 15 9 8 390 30 91 117 796 58 46 1141 323
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 17 10 9 445 34 104 133 907 66 52 1301 368
Added Vol: 0 0 0 0 0 0 0 0 199 0 0 90 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 17 10 9 445 34 104 133 1106 66 52 1391 368
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: 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 Volume: 17 10 9 445 34 104 133 1106 66 52 1391 368
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 17 10 9 445 34 104 133 1106 66 52 1391 368
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: 17 10 9 445 34 104 133 1106 66 52 1391 368

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.91 0.91 0.94 0.94 0.83 0.93 0.92 0.92 0.93 0.93 0.83
Lanes: 1.00 0.53 0.47 1.86 0.14 1.00 1.00 1.89 0.11 1.00 2.00 1.00
Final Sat.: 1769 916 814 3306 254 1583 1769 3312 198 1769 3538 1583

Capacity Analysis Module:
Vol/Sat: 0.01 0.01 0.01 0.13 0.13 0.07 0.08 0.33 0.33 0.03 0.39 0.23
Crit Moves: ****
Green/Cycle: 0.05 0.05 0.05 0.20 0.20 0.20 0.11 0.61 0.61 0.09 0.59 0.59
Volume/Cap: 0.19 0.22 0.22 0.67 0.67 0.33 0.67 0.55 0.55 0.33 0.67 0.40
Uniform Del: 36.5 36.5 36.5 29.5 29.5 27.3 34.1 9.2 9.2 34.1 11.3 8.9
IncrementDel: 1.1 1.3 1.3 2.5 2.5 0.6 8.5 0.3 0.3 1.2 0.9 0.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 37.5 37.8 37.8 32.0 32.0 27.9 42.6 9.5 9.5 35.2 12.1 9.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 37.5 37.8 37.8 32.0 32.0 27.9 42.6 9.5 9.5 35.2 12.1 9.2
LOS by Move: D D D C C C D A A D B A
HCM2kAvgQ: 1 1 1 7 7 2 5 9 9 2 13 5

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

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

Intersection #6 Bay Rd. & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.706
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 17.4
Optimal Cycle: 35 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Permitted, Protected), Rights (Include, Ovl), Min. Green, Lanes.

Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 70 3 177 112 28 5 2 665 66 264 982 22
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 80 3 202 128 32 6 2 758 75 301 1119 25
Added Vol: 1 0 0 0 0 0 0 0 199 2 0 90 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 81 3 202 128 32 6 2 957 77 301 1209 25
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 81 3 202 128 32 6 2 957 77 301 1209 25
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 81 3 202 128 32 6 2 957 77 301 1209 25
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 81 3 202 128 32 6 2 957 77 301 1209 25

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.79 0.79 0.79 0.53 0.53 0.53 0.88 0.88 0.88 0.93 0.93 0.93
Lanes: 0.28 0.01 0.71 0.78 0.19 0.03 0.01 1.84 0.15 1.00 1.96 0.04
Final Sat.: 425 18 1060 776 194 35 7 3085 249 1769 3456 72

Capacity Analysis Module:
Vol/Sat: 0.19 0.19 0.19 0.16 0.16 0.16 0.31 0.31 0.31 0.17 0.35 0.35
Crit Moves: ****
Green/Cycle: 0.27 0.27 0.27 0.27 0.27 0.27 0.44 0.44 0.44 0.24 0.68 0.68
Volume/Cap: 0.70 0.70 0.70 0.60 0.60 0.60 0.71 0.71 0.71 0.71 0.52 0.52
Uniform Del: 26.2 26.2 26.2 25.3 25.3 25.3 18.3 18.3 18.3 27.8 6.4 6.4
IncrementDel: 5.3 5.3 5.3 3.8 3.8 3.8 1.6 1.6 1.6 5.5 0.2 0.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 31.4 31.4 31.4 29.2 29.2 29.2 20.0 20.0 20.0 33.3 6.6 6.6
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: 31.4 31.4 31.4 29.2 29.2 29.2 20.0 20.0 20.0 33.3 6.6 6.6
LOS by Move: C C C C C C B B B C A A
HCM2kAvgQ: 8 8 8 5 5 5 12 12 12 8 8 8

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)

Cycle (sec): 110 Critical Vol./Cap. (X): 0.766
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 27.0
Optimal Cycle: 66 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Protected), Rights (Include, Ovl), Min. Green, Lanes.

Volume Module: >> Count Date: 18 Nov 2009 << 7:15-8:15 a.m.
Base Vol: 0 166 397 342 367 0 0 0 0 463 0 169
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 0 189 453 390 418 0 0 0 0 528 0 193
Added Vol: 0 7 100 101 40 0 0 0 0 51 0 41
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 196 553 491 458 0 0 0 0 579 0 234
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: 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 Volume: 0 196 553 491 458 0 0 0 0 579 0 234
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 196 553 491 458 0 0 0 0 579 0 234
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: 0 196 553 491 458 0 0 0 0 579 0 234

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

Capacity Analysis Module:
Vol/Sat: 0.00 0.10 0.34 0.27 0.24 0.00 0.00 0.00 0.00 0.32 0.00 0.14
Crit Moves: ****
Green/Cycle: 0.00 0.13 0.55 0.36 0.49 0.00 0.00 0.00 0.00 0.42 0.00 0.77
Volume/Cap: 0.00 0.77 0.62 0.77 0.49 0.00 0.00 0.00 0.00 0.77 0.00 0.19
Uniform Del: 0.0 45.9 16.6 31.4 18.8 0.0 0.0 0.0 0.0 27.3 0.0 3.3
IncrementDel: 0.0 12.9 1.3 5.5 0.4 0.0 0.0 0.0 0.0 4.7 0.0 0.1
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Delay/Veh: 0.0 58.8 18.0 36.9 19.3 0.0 0.0 0.0 0.0 32.0 0.0 3.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 58.8 18.0 36.9 19.3 0.0 0.0 0.0 0.0 32.0 0.0 3.4
LOS by Move: A E B D B A A A A C A A
HCM2kAvgQ: 0 8 13 16 10 0 0 0 0 18 0 2

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.750
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 35.4
Optimal Cycle: 71 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Split Phase Split Phase
Rights: Ovl Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 2 0 3 0 1 2 0 3 0 1 1 1 1 0 2 1 0 2 0 1

Volume Module: >> Count Date: 1 Oct 2009 << 7:45 - 8:45 AM
Base Vol: 1034 2108 6 13 677 92 84 34 379 3 6 5
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 1179 2403 7 15 772 105 96 39 432 3 7 6
Added Vol: 55 195 14 254 42 0 0 483 14 13 16 7
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 1234 2598 21 269 814 105 96 522 446 16 23 13
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 1234 2598 21 269 814 105 96 522 446 16 23 13
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 1234 2598 21 269 814 105 96 522 446 16 23 13
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: 1234 2598 21 269 814 105 96 522 446 16 23 13

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.03 0.83 0.90 1.03 0.83 0.92 0.92 0.88 0.93 0.93 0.83
Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 1.00 2.00 2.00 1.00 2.00 1.00
Final Sat.: 3432 5846 1583 3432 5846 1583 1755 3509 3343 1769 3538 1583

Capacity Analysis Module:
Vol/Sat: 0.36 0.44 0.01 0.08 0.14 0.07 0.05 0.15 0.13 0.01 0.01 0.01
Crit Moves: ****
Green/Cycle: 0.49 0.58 0.61 0.10 0.19 0.19 0.19 0.19 0.19 0.04 0.04 0.04
Volume/Cap: 0.74 0.77 0.02 0.77 0.74 0.35 0.28 0.77 0.69 0.24 0.17 0.21
Uniform Del: 26.6 21.1 9.8 56.9 49.7 45.8 44.8 49.8 48.9 60.7 60.5 60.6
IncrementDel: 1.8 1.2 0.0 10.2 2.6 0.7 0.1 4.7 3.3 1.8 0.6 1.7
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 28.4 22.2 9.8 67.2 52.3 46.5 44.9 54.5 52.2 62.5 61.1 62.3
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: 28.4 22.2 9.8 67.2 52.3 46.5 44.9 54.5 52.2 62.5 61.1 62.3
LOS by Move: C C A E D D D E E E
HCM2kAvgQ: 21 29 0 7 13 4 4 12 11 1 1 1

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.647
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 22.4
Optimal Cycle: 52 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 1 1 0 1 0 1 1 0

Volume Module: >> Count Date: 7 Oct 2009 << 8:00 am - 9:00 am
Base Vol: 18 13 26 71 19 72 115 415 52 56 1037 74
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 21 15 30 81 22 82 131 473 59 64 1182 84
Added Vol: 0 0 0 1 0 13 4 496 0 0 70 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 21 15 30 82 22 95 135 969 59 64 1252 84
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: 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 Volume: 21 15 30 82 22 95 135 969 59 64 1252 84
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 21 15 30 82 22 95 135 969 59 64 1252 84
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: 21 15 30 82 22 95 135 969 59 64 1252 84

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.82 0.82 0.82 0.78 0.78 0.78 0.93 0.92 0.92 0.93 0.92 0.92
Lanes: 0.31 0.23 0.46 0.41 0.11 0.48 1.00 1.88 0.12 1.00 1.87 0.13
Final Sat.: 491 355 710 610 161 707 1769 3304 202 1769 3285 221

Capacity Analysis Module:
Vol/Sat: 0.04 0.04 0.04 0.13 0.13 0.13 0.08 0.29 0.29 0.04 0.38 0.38
Crit Moves: ****
Green/Cycle: 0.21 0.21 0.21 0.21 0.21 0.21 0.12 0.63 0.63 0.08 0.59 0.59
Volume/Cap: 0.20 0.20 0.20 0.65 0.65 0.65 0.65 0.47 0.47 0.44 0.65 0.65
Uniform Del: 42.6 42.6 42.6 47.1 47.1 47.1 54.7 12.9 12.9 56.8 17.7 17.7
IncrementDel: 0.3 0.3 0.3 4.7 4.7 4.7 6.9 0.2 0.2 2.1 0.7 0.7
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 42.9 42.9 42.9 51.9 51.9 51.9 61.6 13.1 13.1 59.0 18.4 18.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 42.9 42.9 42.9 51.9 51.9 51.9 61.6 13.1 13.1 59.0 18.4 18.4
LOS by Move: D D D D D D E B B E B B
HCM2kAvgQ: 2 2 2 8 8 8 6 11 11 3 19 19

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

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

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.643
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 21.3
Optimal Cycle: 52 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 5 0 5 5 5 0 0 5 5
Lanes: 0 0 0 0 0 0 0 1 0 0 1 0 2 0 0 0 0 0 1 1 0

Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 0 0 0 1 0 186 82 652 0 0 1021 14
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 0 0 0 1 0 212 93 743 0 0 1164 16
Added Vol: 0 0 0 67 0 6 7 433 0 0 78 5
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 68 0 218 100 1176 0 0 1242 21
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: 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 Volume: 0 0 0 68 0 218 100 1176 0 0 1242 21
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 68 0 218 100 1176 0 0 1242 21
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 0 0 68 0 218 100 1176 0 0 1242 21

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.87 1.00 0.87 0.93 0.93 1.00 1.00 0.93 0.93
Lanes: 0.00 0.00 0.00 0.24 0.00 0.76 1.00 2.00 0.00 0.00 1.97 0.03
Final Sat.: 0 0 0 393 0 1257 1769 3538 0 0 3469 59

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.17 0.00 0.17 0.06 0.33 0.00 0.00 0.36 0.36
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.27 0.00 0.27 0.09 0.65 0.00 0.00 0.56 0.56
Volume/Cap: 0.00 0.00 0.00 0.64 0.00 0.64 0.64 0.52 0.00 0.00 0.64 0.64
Uniform Del: 0.0 0.0 0.0 41.9 0.0 41.9 57.3 12.2 0.0 0.0 19.9 19.9
IncrementDel: 0.0 0.0 0.0 3.2 0.0 3.2 8.8 0.2 0.0 0.0 0.7 0.7
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Delay/Veh: 0.0 0.0 0.0 45.1 0.0 45.1 66.1 12.4 0.0 0.0 20.6 20.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 45.1 0.0 45.1 66.1 12.4 0.0 0.0 20.6 20.6
LOS by Move: A A A D A D E B A A C C
HCM2kAvgQ: 0 0 0 11 0 11 5 13 0 0 18 18

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

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

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.552
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.7
Optimal Cycle: 43 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 0 5 0 0 0 0 5 5 5 5 0
Lanes: 1 0 1 0 0 0 0 0 0 0 0 0 2 0 1 1 0 2 0 0

Volume Module: >> Count Date: 8 Oct 2009 << 8:00 am - 9:00 am
Base Vol: 130 0 67 0 0 0 0 697 250 102 1171 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 148 0 76 0 0 0 0 795 285 116 1335 0
Added Vol: 10 0 0 0 0 0 0 440 2 0 84 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 158 0 76 0 0 0 0 1235 287 116 1419 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: 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 Volume: 158 0 76 0 0 0 0 1235 287 116 1419 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 158 0 76 0 0 0 0 1235 287 116 1419 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: 158 0 76 0 0 0 0 1235 287 116 1419 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.00 0.90 1.00 1.00 1.00 1.00 0.93 0.83 0.93 0.93 1.00
Lanes: 1.51 0.00 0.49 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 2583 0 841 0 0 0 0 3538 1583 1769 3538 0

Capacity Analysis Module:
Vol/Sat: 0.06 0.00 0.09 0.00 0.00 0.00 0.00 0.35 0.18 0.07 0.40 0.00
Crit Moves: ****
Green/Cycle: 0.16 0.00 0.16 0.00 0.00 0.00 0.00 0.63 0.63 0.12 0.75 0.00
Volume/Cap: 0.37 0.00 0.55 0.00 0.00 0.00 0.00 0.55 0.29 0.55 0.53 0.00
Uniform Del: 48.3 0.0 49.9 0.0 0.0 0.0 0.0 13.5 10.8 54.0 6.7 0.0
IncrementDel: 0.4 0.0 1.6 0.0 0.0 0.0 0.0 0.3 0.2 3.2 0.2 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00 0.00
Delay/Veh: 48.7 0.0 51.5 0.0 0.0 0.0 0.0 13.8 10.9 57.1 6.9 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 48.7 0.0 51.5 0.0 0.0 0.0 0.0 13.8 10.9 57.1 6.9 0.0
LOS by Move: D A D A A A A B B E A A
HCM2kAvgQ: 4 0 6 0 0 0 0 14 5 5 12 0

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.028
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 62.5
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Ignore), Min. Green, Lanes.

Volume Module: >> Count Date: 7 Oct 2009 << 7:30 AM to 8:30 AM. Table with 12 columns for volume counts and 12 rows for various metrics like Base Vol, Growth Adj, etc.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.818
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 22.2
Optimal Cycle: 79 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Ignore), Min. Green, Lanes.

Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM. Table with 12 columns for volume counts and 12 rows for various metrics like Base Vol, Growth Adj, etc.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.844
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 15.6
Optimal Cycle: 73 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM. Table with 12 columns for volume counts and 12 rows for various traffic metrics.

Saturation Flow Module: Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.868
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 18.8
Optimal Cycle: 82 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM. Table with 12 columns for volume counts and 12 rows for various traffic metrics.

Saturation Flow Module: Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.836
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 18.0
Optimal Cycle: 71 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM. Table with 12 columns for volume counts and 12 columns for adjustment factors.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.225
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 123.8
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 8:00 - 9:00 AM. Table with 12 columns for volume counts and 12 columns for adjustment factors.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #18 Bayfront Exp. & University Ave.
Cycle (sec): 160 Critical Vol./Cap. (X): 0.905
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 35.1
Optimal Cycle: 132 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Split Phase), and Rights (Include). Includes Min. Green and Lanes for each approach.

Volume Module: >> Count Date: 1 Oct 2009 << 7:15 - 8:15 AM. Table with 12 columns for volume counts and 12 columns for adjustment factors (PCE Adj, MLF Adj, etc.).

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat. values.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #19 O'Brien Dr. & University Ave.
Cycle (sec): 85 Critical Vol./Cap. (X): 0.611
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 6.8
Optimal Cycle: 46 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), and Rights (Include). Includes Min. Green and Lanes for each approach.

Volume Module: >> Count Date: 8 Oct 2009 << 7:45 - 8:45 AM. Table with 12 columns for volume counts and 12 columns for adjustment factors (PCE Adj, MLF Adj, etc.).

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat. values.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap. (X): 0.623
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.2
Optimal Cycle: 85 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module:

Table with 12 columns for saturation flow metrics: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis metrics: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap. (X): 0.730
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 29.0
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module:

Table with 12 columns for saturation flow metrics: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis metrics: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap. (X): 0.693
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 21.6
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: Table with 12 columns for volume metrics and 12 rows for various traffic conditions like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 12 columns for saturation metrics and 4 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity metrics and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #23 University & Bell

Cycle (sec): 95 Critical Vol./Cap. (X): 0.289
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 7.4
Optimal Cycle: 91 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: Table with 12 columns for volume metrics and 12 rows for various traffic conditions like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 12 columns for saturation metrics and 4 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity metrics and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap. (X): 1.030
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 53.5
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: Table with 10 columns and 15 rows showing traffic volume metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 10 columns and 4 rows showing Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 10 columns and 15 rows showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 65 Critical Vol./Cap. (X): 0.436
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 9.3
Optimal Cycle: 57 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: Table with 10 columns and 15 rows showing traffic volume metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 10 columns and 4 rows showing Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 10 columns and 15 rows showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #26 University & SB US 101

Cycle (sec): 85 Critical Vol./Cap. (X): 0.718
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 18.3
Optimal Cycle: 180 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #27 University Ave. & Woodland

Cycle (sec): 100 Critical Vol./Cap. (X): 0.991
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 52.3
Optimal Cycle: 180 Level Of Service: D

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.888
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 46.5
Optimal Cycle: 102 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module:

Table with 12 columns for volume metrics (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume) and 12 rows for different approaches.

Saturation Flow Module:

Table with 12 columns for saturation flow metrics (Sat/Lane, Adjustment, Lanes, Final Sat.) and 4 rows for different approaches.

Capacity Analysis Module:

Table with 12 columns for capacity analysis metrics (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ) and 12 rows for different approaches.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.738
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 17.5
Optimal Cycle: 59 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 21 Oct 2009 << 7:15 - 8:15 AM

Table with 12 columns for volume metrics (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume) and 12 rows for different approaches.

Saturation Flow Module:

Table with 12 columns for saturation flow metrics (Sat/Lane, Adjustment, Lanes, Final Sat.) and 4 rows for different approaches.

Capacity Analysis Module:

Table with 12 columns for capacity analysis metrics (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ) and 12 rows for different approaches.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.675
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 20.0
Optimal Cycle: 50 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control (Protected, Split Phase), Rights (Include), and Lanes.

Volume Module: >> Count Date: 20 Oct 2009 << 7:45 - 8:45 AM
Base Vol: 146 2070 0 0 851 196 218 0 31 0 0 0 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.89 1.00 1.00 0.89 0.83 0.93 1.00 0.83 1.00 1.00 1.00

Capacity Analysis Module:
Vol/Sat: 0.15 0.49 0.00 0.00 0.24 0.14 0.14 0.00 0.04 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.27 0.72 0.00 0.00 0.45 0.45 0.21 0.00 0.21 0.00 0.00 0.00

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.731
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 25.7
Optimal Cycle: 40 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control (Protected, Split Phase), Rights (Include, Ignore), and Lanes.

Volume Module: >> Count Date: 20 Oct 2009 << 7:45 - 8:45 AM
Base Vol: 464 366 0 0 398 66 83 0 561 0 0 0 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.98 1.00 1.00 0.96 0.96 0.93 1.00 1.00 1.00 1.00 1.00

Capacity Analysis Module:
Vol/Sat: 0.33 0.24 0.00 0.00 0.32 0.32 0.06 0.00 0.00 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.46 0.89 0.00 0.00 0.43 0.43 0.08 0.00 0.00 0.00 0.00 0.00

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.540
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 25.7
Optimal Cycle: 24 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include), and Lanes.

Volume Module: >> Count Date: 21 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 57 623 49 192 709 68 3 3 3 123 53 241
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.93 0.83 0.93 0.93 0.83 0.47 0.91 0.91 0.77 0.77 0.83

Capacity Analysis Module:
Vol/Sat: 0.04 0.22 0.04 0.12 0.25 0.05 0.00 0.00 0.00 0.14 0.14 0.17
Crit Moves: ****
Green/Cycle: 0.08 0.41 0.41 0.23 0.56 0.56 0.32 0.32 0.32 0.32 0.32 0.32

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 100 Critical Vol./Cap. (X): 0.696
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 32.7
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase), Rights (Include), and Lanes.

Volume Module:
Base Vol: 115 314 8 7 490 355 114 34 45 6 97 5
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.94 0.94 0.94 0.89 0.89 0.89 0.94 0.94 0.94 0.99 0.99 0.99

Capacity Analysis Module:
Vol/Sat: 0.17 0.17 0.17 0.30 0.30 0.30 0.05 0.09 0.09 0.07 0.07 0.07
Crit Moves: ****
Green/Cycle: 0.25 0.25 0.25 0.43 0.43 0.43 0.13 0.13 0.13 0.09 0.09 0.09

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec): 100 Critical Vol./Cap. (X): 0.593
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 1.5
Optimal Cycle: 90 Level Of Service: A

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), Min. Green (10, 10, 10), Lanes (1 0 3 0 0, 0 0 3 0 1, 2 0 0 0 1, 0 0 0 0 0)

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Volume Module: Base Vol: 0 2197 0 0 782 0 0 0 0 0 0 0 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 0 2505 0 0 891 0 0 0 0 0 0 0 0
Added Vol: 0 203 0 0 296 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 2708 0 0 1187 0 0 0 0 0 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: 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 Volume: 0 2708 0 0 1187 0 0 0 0 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 2708 0 0 1187 0 0 0 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 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 2708 0 0 1187 0 0 0 0 0 0 0 0

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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 0.97 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 3.00 0.00 0.00 3.00 1.00 2.00 0.00 1.00 0.00 0.00 0.00
Final Sat.: 1900 5187 0 0 5187 1900 3686 0 1900 0 0 0

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Capacity Analysis Module: Vol/Sat: 0.00 0.52 0.00 0.00 0.23 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.88 0.00 0.00 0.88 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.59 0.00 0.00 0.26 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Uniform Del: 0.0 1.5 0.0 0.0 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0
IncrementDel: 0.0 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 1.7 0.0 0.0 1.0 0.0 0.0 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 1.7 0.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
LOS by Move: A A A A A A A A A A A A
HCM2kAvgQ: 0 8 0 0 2 0 0 0 0 0 0 0

Note: Queue reported is the number of cars per lane.

 Scenario Report
 Scenario: Cumulative 2025 PM

Command: Long Term No Project I PM
 Volume: Long Term No Project I PM
 Geometry: Long Term No Project I PM
 Impact Fee: Default Impact Fee
 Trip Generation: Long Term No Project I PM
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Long Term No Project I PM

 Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Bayfront Exp. & Marsh Rd.	E	77.7 1.075	E	79.6 1.085	+ 1.883 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	19.2 0.929	D	44.9 1.096	+25.633 D/V
# 3 US 101 SB Ramps & Marsh Rd.	C	23.8 0.931	C	29.9 0.972	+ 6.065 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	C	24.3 0.781	C	22.4 0.860	-1.924 D/V
# 5 Bohannon/ Florence & Marsh Rd.	C	29.2 0.664	C	22.2 0.743	-6.988 D/V
# 6 Bay Rd. & Marsh Rd.	B	15.9 0.659	B	15.4 0.686	-0.557 D/V
# 7 Middlefield at Marsh (Town of	D	39.4 0.922	D	44.4 0.998	+ 5.015 D/V
# 8 Bayfront Exp. & Willow Rd.	E	67.9 1.045	F	103.7 1.160	+35.776 D/V
# 9 Hamilton Ave. & Willow Rd.	C	23.7 0.693	C	24.0 0.720	+ 0.345 D/V
# 10 Ivy Dr. & Willow Rd.	B	12.8 0.619	B	13.9 0.655	+ 1.068 D/V
# 11 O'Brien Dr. & Willow Rd.	B	10.4 0.622	B	10.1 0.652	-0.332 D/V
# 12 Newbridge St. & Willow Rd.	D	36.8 0.838	D	41.1 0.937	+ 4.274 D/V
# 13 Bay Rd. & Willow Rd.	C	22.2 0.833	C	23.5 0.874	+ 1.272 D/V
# 14 Durham St. & Willow Rd.	E	56.1 0.728	B	18.3 0.813	-37.783 D/V
# 15 Coleman Ave. & Willow Rd.	B	14.3 0.833	B	15.9 0.901	+ 1.604 D/V
# 16 Gilbert Ave. & Willow Rd.	B	14.1 0.745	B	13.9 0.839	-0.183 D/V
# 17 Middlefield Rd. & Willow Rd.	F	153.6 1.404	F	205.7 1.505	+52.106 D/V
# 18 Bayfront Exp. & University Ave	F	211.8 1.460	F	235.7 1.531	+23.859 D/V
# 19 O'Brien Dr. & University Ave.	B	14.3 0.760	B	14.7 0.774	+ 0.459 D/V
# 20 University & Kavanaugh	B	17.7 0.732	B	17.7 0.739	-0.032 D/V
# 21 University & Bay	D	39.5 0.918	D	39.8 0.924	+ 0.289 D/V
# 22 University & Runnymede	C	24.8 0.770	C	24.8 0.776	+ 0.005 D/V
# 23 University & Bell	A	8.2 0.605	A	8.2 0.611	-0.043 D/V
# 24 University & Donohoe	D	43.4 0.962	D	44.9 0.972	+ 1.462 D/V
# 25 NB 101 & Donohoe St	B	14.3 0.532	B	14.3 0.535	+ 0.060 D/V

Intersection		Base		Future		Change	
		Del/ LOS	V/ Veh	Del/ LOS	V/ Veh		
# 26 University & SB US 101	C	33.4	0.580	34.2	0.592	+ 0.748	D/V
# 27 University Ave. & Woodland	E	57.6	0.980	60.0	0.998	+ 2.427	D/V
# 28 Middlefield Rd. & University A	C	33.8	0.613	35.1	0.666	+ 1.255	D/V
# 29 Bayfront Exp. & Chrysler Dr.	C	20.8	0.777	F 102.7	1.180	+81.881	D/V
# 30 Bayfront Exp. & Chilco St.	B	15.0	0.666	B 19.6	0.770	+ 4.654	D/V
# 31 Middlefield Rd. & Ravenswood A	C	30.5	0.818	C 32.6	0.874	+ 2.127	D/V
# 32 Middlefield Rd. & Ringwood Ave	C	29.6	0.689	C 30.0	0.708	+ 0.396	D/V
# 33 Middlefield Rd and Lytton Ave	D	41.7	0.803	D 44.4	0.849	+ 2.653	D/V
# 34 Bayfront Expy. and Facebook We	A	1.5	0.576	A 1.6	0.618	+ 0.133	D/V

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 140 Critical Vol./Cap. (X): 1.085
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 79.6
Optimal Cycle: 180 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Split Phase Split Phase
Rights: Include Ovl Ovl Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 3 0 0 1 0 0 1 1 0 1 0 1 0 0 2 0 0 1! 0 0

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Volume Module: >> Count Date: 22 Oct 2009 << 4:45 - 5:45 PM
Base Vol: 1184 49 7 0 346 186 139 40 1952 31 73 11
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 1350 56 8 0 394 212 158 46 2225 35 83 13
Added Vol: 759 0 0 0 0 0 0 0 25 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 2109 56 8 0 394 212 158 46 2250 35 83 13
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 2109 56 8 0 394 212 158 46 2250 35 83 13
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2109 56 8 0 394 212 158 46 2250 35 83 13
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: 2109 56 8 0 394 212 158 46 2250 35 83 13
-----|-----|-----|-----|-----|

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.96 0.96 0.95 0.93 0.83 0.94 0.94 0.73 0.95 0.95 0.95
Lanes: 3.00 0.87 0.13 0.00 2.00 1.00 0.78 0.22 2.00 0.27 0.63 0.10
Final Sat.: 5147 1598 228 0 3538 1583 1392 401 2786 489 1151 174
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Capacity Analysis Module:
Vol/Sat: 0.41 0.03 0.03 0.00 0.11 0.13 0.11 0.11 0.81 0.07 0.07 0.07
Crit Moves: **** **** **** ****
Green/Cycle: 0.38 0.38 0.38 0.00 0.10 0.47 0.37 0.37 0.74 0.07 0.07 0.07
Volume/Cap: 1.08 0.09 0.09 0.00 1.08 0.29 0.31 0.31 1.08 1.08 1.08 1.08
Uniform Del: 43.6 28.1 28.1 0.0 62.8 22.7 31.6 31.6 17.9 65.3 65.3 65.3
IncramntDel: 47.6 0.1 0.1 0.0 71.7 0.2 0.3 0.3 47.1 106.4 106 106.4
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 91.1 28.1 28.1 0.0 135 22.9 31.9 31.9 64.9 171.7 172 171.7
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: 91.1 28.1 28.1 0.0 135 22.9 31.9 31.9 64.9 171.7 172 171.7
LOS by Move: F C C A F C C E F F F
HCM2kAvgQ: 42 2 2 0 14 5 6 6 70 10 10 10

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap. (X): 1.096
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 44.9
Optimal Cycle: 180 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Permitted Permitted
Rights: Include Include Ignore Ignore
Min. Green: 5 0 5 0 0 0 0 5 0 0 5 0
Lanes: 2 0 0 0 1 0 0 0 0 0 0 1 1 0 1 0 0 2 0 1

Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM
Base Vol: 493 0 213 0 0 0 0 2063 507 0 682 791
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 562 0 243 0 0 0 0 2352 578 0 777 902
Added Vol: 0 0 160 0 0 0 0 3 88 0 0 609 150
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 562 0 403 0 0 0 0 3 2440 578 0 1386 1052
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Volume: 562 0 403 0 0 0 0 3 2440 0 0 1386 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 562 0 403 0 0 0 0 3 2440 0 0 1386 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 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
FinalVolume: 562 0 403 0 0 0 0 3 2440 0 0 1386 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.00 0.83 1.00 1.00 1.00 0.89 0.89 1.00 1.00 0.93 1.00
Lanes: 2.00 0.00 1.00 0.00 0.00 0.00 0.01 1.99 1.00 0.00 2.00 1.00
Final Sat.: 3432 0 1583 0 0 0 4 3374 1900 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.16 0.00 0.25 0.00 0.00 0.00 0.72 0.72 0.00 0.00 0.39 0.00
Crit Moves: ****
Green/Cycle: 0.23 0.00 0.23 0.00 0.00 0.00 0.66 0.66 0.00 0.00 0.66 0.00
Volume/Cap: 0.70 0.00 1.10 0.00 0.00 0.00 1.10 1.10 0.00 0.00 0.59 0.00
Uniform Del: 22.9 0.0 24.9 0.0 0.0 0.0 11.1 11.1 0.0 0.0 6.2 0.0
IncrementDel: 2.9 0.0 75.1 0.0 0.0 0.0 50.8 50.8 0.0 0.0 0.4 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 25.8 0.0 100.1 0.0 0.0 0.0 61.9 61.9 0.0 0.0 6.6 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 25.8 0.0 100.1 0.0 0.0 0.0 61.9 61.9 0.0 0.0 6.6 0.0
LOS by Move: C A F A A A E E A A C A
HCM2kAvgQ: 7 0 17 0 0 0 45 45 0 0 9 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 US 101 SB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap. (X): 0.972
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 29.9
Optimal Cycle: 119 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Permitted Permitted
Rights: Include Include Ignore Ignore
Min. Green: 0 0 0 5 0 5 0 5 0 0 5 0
Lanes: 0 0 0 0 0 2 0 0 0 1 0 0 2 0 1

Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM
Base Vol: 0 0 0 1355 0 453 0 1181 651 0 940 282
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 0 0 0 1545 0 516 0 1346 742 0 1072 321
Added Vol: 0 0 0 50 0 17 0 77 0 0 249 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 1595 0 533 0 1423 742 0 1321 321
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Volume: 0 0 0 1595 0 533 0 1423 0 0 1321 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 1595 0 533 0 1423 0 0 1321 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 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
FinalVolume: 0 0 0 1595 0 533 0 1423 0 0 1321 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.90 1.00 0.83 1.00 0.93 1.00 1.00 0.93 1.00
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 0.00 2.00 1.00 0.00 2.00 1.00
Final Sat.: 0 0 0 3432 0 1583 0 3538 1900 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.46 0.00 0.34 0.00 0.40 0.00 0.00 0.37 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.48 0.00 0.48 0.00 0.41 0.00 0.00 0.41 0.00
Volume/Cap: 0.00 0.00 0.00 0.97 0.00 0.70 0.00 0.97 0.00 0.00 0.90 0.00
Uniform Del: 0.0 0.0 0.0 16.5 0.0 13.3 0.0 18.7 0.0 0.0 17.8 0.0
IncrementDel: 0.0 0.0 0.0 16.0 0.0 3.0 0.0 17.2 0.0 0.0 8.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 0.0 0.0 0.0 32.5 0.0 16.4 0.0 35.8 0.0 0.0 25.8 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 32.5 0.0 16.4 0.0 35.8 0.0 0.0 25.8 0.0
LOS by Move: A A A C A B A D A C A
HCM2kAvgQ: 0 0 0 23 0 10 0 22 0 0 17 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.860
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 22.4
Optimal Cycle: 64 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include, Include, Include), Min. Green (4, 4, 4, 4), Lanes (0, 1, 0, 0, 2, 0, 1, 0, 0, 1, 1, 0, 2, 1, 0, 2, 0, 1, 1, 0)

Volume Module: >> Count Date: 4 Nov 2009 << 4:45 - 5:45 PM
Base Vol: 28 15 267 254 9 2 42 1314 17 78 1109 214
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 32 17 304 290 10 2 48 1498 19 89 1264 244
Added Vol: 0 0 0 0 0 0 0 0 79 0 0 266 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 32 17 304 290 10 2 48 1577 19 89 1530 244
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: 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 Volume: 32 17 304 290 10 2 48 1577 19 89 1530 244
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 32 17 304 290 10 2 48 1577 19 89 1530 244
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: 32 17 304 290 10 2 48 1577 19 89 1530 244

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 0.73 0.93 0.93 0.83 0.93 0.89 0.89 0.90 0.91 0.91
Lanes: 0.65 0.35 2.00 0.97 0.03 1.00 1.00 2.96 0.04 2.00 1.72 0.28
Final Sat.: 1174 629 2786 1716 61 1583 1769 5012 62 3432 2987 476

Capacity Analysis Module:
Vol/Sat: 0.03 0.03 0.11 0.17 0.17 0.00 0.03 0.31 0.31 0.03 0.51 0.51
Crit Moves: ****
Green/Cycle: 0.12 0.12 0.12 0.19 0.19 0.19 0.05 0.55 0.55 0.09 0.58 0.58
Volume/Cap: 0.22 0.22 0.88 0.88 0.88 0.01 0.54 0.58 0.58 0.30 0.88 0.88
Uniform Del: 31.5 31.5 34.4 31.4 31.4 26.1 37.1 12.0 12.0 34.2 14.2 14.2
IncrementDel: 0.5 0.5 21.6 21.9 21.9 0.0 6.7 0.3 0.3 0.6 4.8 4.8
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 32.0 32.0 56.0 53.3 53.3 26.1 43.8 12.3 12.3 34.8 19.0 19.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 32.0 32.0 56.0 53.3 53.3 26.1 43.8 12.3 12.3 34.8 19.0 19.0
LOS by Move: C C E D D C D B B C B B
HCM2kAvgQ: 1 1 7 11 11 0 2 10 10 1 23 23

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.743
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 22.2
Optimal Cycle: 39 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include, Include, Include), Min. Green (4, 4, 4, 4), Lanes (1, 0, 0, 1, 0, 1, 1, 0, 0, 1, 1, 0, 1, 0, 2, 0, 1)

Volume Module: >> Count Date: 7 Oct 2009 << 4:30 - 5:30 pm
Base Vol: 95 32 58 428 30 128 239 885 55 26 833 316
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 108 36 66 488 34 146 272 1009 63 30 950 360
Added Vol: 0 0 0 0 0 0 0 0 79 0 0 266 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 108 36 66 488 34 146 272 1088 63 30 1216 360
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: 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 Volume: 108 36 66 488 34 146 272 1088 63 30 1216 360
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 108 36 66 488 34 146 272 1088 63 30 1216 360
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: 108 36 66 488 34 146 272 1088 63 30 1216 360

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.88 0.88 0.94 0.94 0.83 0.93 0.92 0.92 0.93 0.93 0.83
Lanes: 1.00 0.36 0.64 1.87 0.13 1.00 1.00 1.89 0.11 1.00 2.00 1.00
Final Sat.: 1769 598 1084 3323 233 1583 1769 3318 191 1769 3538 1583

Capacity Analysis Module:
Vol/Sat: 0.06 0.06 0.06 0.15 0.15 0.09 0.15 0.33 0.33 0.02 0.34 0.23
Crit Moves: ****
Green/Cycle: 0.08 0.08 0.08 0.20 0.20 0.20 0.21 0.58 0.58 0.09 0.46 0.46
Volume/Cap: 0.74 0.74 0.74 0.74 0.74 0.47 0.74 0.56 0.56 0.19 0.74 0.49
Uniform Del: 35.9 35.9 35.9 30.2 30.2 28.4 29.7 10.4 10.4 33.8 17.6 15.0
IncrementDel: 18.5 19.0 19.0 4.3 4.3 1.1 8.0 0.4 0.4 0.6 1.9 0.5
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 54.3 54.9 54.9 34.5 34.5 29.5 37.7 10.8 10.8 34.4 19.5 15.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 54.3 54.9 54.9 34.5 34.5 29.5 37.7 10.8 10.8 34.4 19.5 15.5
LOS by Move: D D D C C C D B B C B B
HCM2kAvgQ: 4 4 4 8 8 4 8 10 10 1 14 7

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Bay Rd. & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.686
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.4
Optimal Cycle: 33 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	4	6	6
Lanes:	0	0	1	0	0	1	0	1	0	1	0	1

Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM

Base Vol:	57	8	180	55	31	3	5	819	90	200	891	47
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Initial Bse:	65	9	205	63	35	3	6	934	103	228	1016	54
Added Vol:	2	0	0	0	0	0	0	79	2	0	266	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	67	9	205	63	35	3	6	1013	105	228	1282	54
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:	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 Volume:	67	9	205	63	35	3	6	1013	105	228	1282	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	67	9	205	63	35	3	6	1013	105	228	1282	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:	67	9	205	63	35	3	6	1013	105	228	1282	54

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.81	0.81	0.81	0.65	0.65	0.65	0.87	0.87	0.87	0.93	0.93	0.93
Lanes:	0.24	0.03	0.73	0.62	0.35	0.03	0.01	1.80	0.19	1.00	1.92	0.08
Final Sat.:	365	50	1119	768	433	42	17	2985	308	1769	3375	141

Capacity Analysis Module:

Vol/Sat:	0.18	0.18	0.18	0.08	0.08	0.08	0.34	0.34	0.34	0.13	0.38	0.38
Crit Moves:	****			****			****			****		
Green/Cycle:	0.27	0.27	0.27	0.27	0.27	0.27	0.50	0.50	0.50	0.19	0.68	0.68
Volume/Cap:	0.69	0.69	0.69	0.31	0.31	0.31	0.68	0.68	0.68	0.68	0.56	0.56
Uniform Del:	26.4	26.4	26.4	23.5	23.5	23.5	15.4	15.4	15.4	30.2	6.4	6.4
IncrementDel:	4.9	4.9	4.9	0.5	0.5	0.5	1.2	1.2	1.2	5.8	0.3	0.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	31.3	31.3	31.3	24.0	24.0	24.0	16.6	16.6	16.6	36.0	6.7	6.7
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:	31.3	31.3	31.3	24.0	24.0	24.0	16.6	16.6	16.6	36.0	6.7	6.7
LOS by Move:	C	C	C	C	C	C	B	B	B	D	A	A
HCM2kAvgQ:	8	8	8	2	2	2	12	12	12	7	9	9

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Middlefield at Marsh (Town of Atherton)

Cycle (sec): 110 Critical Vol./Cap. (X): 0.998
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 44.4
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Ovl		
Min. Green:	0	6	6	5	6	0	0	0	0	6	0	6
Lanes:	0	0	1	0	1	0	0	0	0	1	0	0

Volume Module: >> Count Date: 18 Nov 2009 << 5:00 - 6:00 p.m.

Base Vol:	0	426	548	408	269	0	0	0	0	515	0	447
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Initial Bse:	0	486	625	465	307	0	0	0	0	587	0	510
Added Vol:	0	26	68	13	7	0	0	0	0	86	0	183
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	512	693	478	314	0	0	0	0	673	0	693
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:	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 Volume:	0	512	693	478	314	0	0	0	0	673	0	693
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	512	693	478	314	0	0	0	0	673	0	693
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	512	693	478	314	0	0	0	0	673	0	693

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	0.85	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	1900	1615	1805	1900	0	0	0	0	1805	0	1615

Capacity Analysis Module:

Vol/Sat:	0.00	0.27	0.43	0.26	0.17	0.00	0.00	0.00	0.00	0.37	0.00	0.43
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.27	0.64	0.27	0.54	0.00	0.00	0.00	0.00	0.37	0.00	0.64
Volume/Cap:	0.00	1.00	0.67	1.00	0.31	0.00	0.00	0.00	0.00	1.00	0.00	0.67
Uniform Del:	0.0	40.1	12.2	40.4	14.2	0.0	0.0	0.0	0.0	34.4	0.0	12.5
IncrementDel:	0.0	39.1	1.7	40.5	0.2	0.0	0.0	0.0	0.0	34.1	0.0	1.7
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	79.3	13.9	80.9	14.4	0.0	0.0	0.0	0.0	68.5	0.0	14.3
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	79.3	13.9	80.9	14.4	0.0	0.0	0.0	0.0	68.5	0.0	14.3
LOS by Move:	A	E	B	F	B	A	A	A	A	E	A	B
HCM2kAvgQ:	0	24	15	22	6	0	0	0	0	30	0	15

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.160
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 103.7
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Split Phase), and Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 4:45 - 5:45 PM. Table with 11 columns for volume counts and 11 rows for various metrics like Base Vol, Growth Adj, etc.

Saturation Flow Module: Table with 11 columns for Sat/Lane and 4 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 11 columns for Vol/Sat and 11 rows for Crit Moves, Green/Cycle, Volume/Cap, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.720
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 24.0
Optimal Cycle: 62 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Protected), and Lanes.

Volume Module: >> Count Date: 7 Oct 2009 << 5:00 - 6:00 PM. Table with 11 columns for volume counts and 11 rows for various metrics like Base Vol, Growth Adj, etc.

Saturation Flow Module: Table with 11 columns for Sat/Lane and 4 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 11 columns for Vol/Sat and 11 rows for Crit Moves, Green/Cycle, Volume/Cap, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.655
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.9
Optimal Cycle: 53 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 5 0 5 5 5 0 0 5 5
Lanes: 0 0 0 0 0 0 0 1 0 0 1 0 2 0 0 0 0 0 1 1 0

Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 0 0 0 10 0 122 98 1457 0 0 800 22
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 0 0 0 11 0 139 112 1661 0 0 912 25
Added Vol: 0 0 0 6 0 10 10 82 0 0 279 41
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 17 0 149 122 1743 0 0 1191 66
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: 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 Volume: 0 0 0 17 0 149 122 1743 0 0 1191 66
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 17 0 149 122 1743 0 0 1191 66
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 0 0 17 0 149 122 1743 0 0 1191 66

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.86 1.00 0.86 0.93 0.93 1.00 1.00 0.92 0.92
Lanes: 0.00 0.00 0.00 0.10 0.00 0.90 1.00 2.00 0.00 0.00 1.89 0.11
Final Sat.: 0 0 0 170 0 1458 1769 3538 0 0 3325 184

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.10 0.00 0.10 0.07 0.49 0.00 0.00 0.36 0.36
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.16 0.00 0.16 0.12 0.75 0.00 0.00 0.63 0.63
Volume/Cap: 0.00 0.00 0.00 0.65 0.00 0.65 0.57 0.65 0.00 0.00 0.57 0.57
Uniform Del: 0.0 0.0 0.0 47.6 0.0 47.6 49.8 7.3 0.0 0.0 12.7 12.7
IncrementDel: 0.0 0.0 0.0 6.1 0.0 6.1 3.6 0.6 0.0 0.0 0.3 0.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Delay/Veh: 0.0 0.0 0.0 53.6 0.0 53.6 53.3 7.9 0.0 0.0 13.1 13.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 53.6 0.0 53.6 53.3 7.9 0.0 0.0 13.1 13.1
LOS by Move: A A A D A D D A A B B
HCM2kAvgQ: 0 0 0 7 0 7 5 17 0 0 14 14

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.652
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 10.1
Optimal Cycle: 52 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 0 5 0 0 0 0 5 5 5 5 0
Lanes: 1 0 1 0 0 0 0 0 0 0 1 0 2 0 0

Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 120 0 35 0 0 0 0 1413 204 73 888 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 137 0 40 0 0 0 0 1611 233 83 1012 0
Added Vol: 4 0 0 0 0 0 0 92 11 0 289 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 141 0 40 0 0 0 0 1703 244 83 1301 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: 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 Volume: 141 0 40 0 0 0 0 1703 244 83 1301 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 141 0 40 0 0 0 0 1703 244 83 1301 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: 141 0 40 0 0 0 0 1703 244 83 1301 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.91 1.00 0.91 1.00 1.00 1.00 1.00 0.93 0.83 0.93 0.93 1.00
Lanes: 1.64 0.00 0.36 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 2841 0 627 0 0 0 0 3538 1583 1769 3538 0

Capacity Analysis Module:
Vol/Sat: 0.05 0.00 0.06 0.00 0.00 0.00 0.00 0.48 0.15 0.05 0.37 0.00
Crit Moves: ****
Green/Cycle: 0.10 0.00 0.10 0.00 0.00 0.00 0.00 0.74 0.74 0.07 0.81 0.00
Volume/Cap: 0.51 0.00 0.65 0.00 0.00 0.00 0.00 0.65 0.21 0.65 0.45 0.00
Uniform Del: 51.4 0.0 52.2 0.0 0.0 0.0 0.0 7.9 4.8 54.2 3.4 0.0
IncrementDel: 1.2 0.0 5.4 0.0 0.0 0.0 0.0 0.6 0.1 11.4 0.1 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00 0.00
Delay/Veh: 52.6 0.0 57.6 0.0 0.0 0.0 0.0 8.5 4.9 65.6 3.5 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 52.6 0.0 57.6 0.0 0.0 0.0 0.0 8.5 4.9 65.6 3.5 0.0
LOS by Move: D A E A A A A A A E A A
HCM2kAvgQ: 4 0 5 0 0 0 0 17 3 4 8 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.937
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 41.1
Optimal Cycle: 148 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Ovl Ovl Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 2 0 1 0 1 1 0 1 0 1 1 0

Volume Module: >> Count Date: 7 Oct 2009 << 4:45 - 5:45 PM
Base Vol: 248 170 55 38 166 219 323 1436 339 102 975 34
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 283 194 63 43 189 250 368 1637 386 116 1112 39
Added Vol: 0 0 0 0 0 0 9 7 103 0 0 293 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 283 194 63 43 189 259 375 1740 386 116 1405 39
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: 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 Volume: 283 194 63 43 189 259 375 1740 386 116 1405 39
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 283 194 63 43 189 259 375 1740 386 116 1405 39
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: 283 194 63 43 189 259 375 1740 386 116 1405 39

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.98 0.83 0.93 0.98 0.83 0.93 0.87 0.87 0.93 0.93 0.93
Lanes: 2.00 1.00 1.00 1.00 1.00 1.00 1.00 2.45 0.55 1.00 1.95 0.05
Final Sat.: 3432 1862 1583 1769 1862 1583 1769 4047 899 1769 3429 95

Capacity Analysis Module:
Vol/Sat: 0.08 0.10 0.04 0.02 0.10 0.16 0.21 0.43 0.43 0.07 0.41 0.41
Crit Moves: ****
Green/Cycle: 0.11 0.11 0.20 0.11 0.11 0.33 0.23 0.58 0.58 0.09 0.44 0.44
Volume/Cap: 0.74 0.94 0.20 0.23 0.94 0.49 0.94 0.75 0.75 0.75 0.94 0.94
Uniform Del: 51.7 52.9 40.1 48.9 53.1 31.7 45.6 18.9 18.9 53.4 32.2 32.2
IncrementDel: 7.6 44.9 0.3 0.6 45.6 0.7 29.4 1.1 1.1 17.9 11.2 11.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 59.3 97.8 40.4 49.5 98.7 32.4 75.0 20.1 20.1 71.3 43.3 43.3
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: 59.3 97.8 40.4 49.5 98.7 32.4 75.0 20.1 20.1 71.3 43.3 43.3
LOS by Move: E F D D F C E C E D D
HCM2kAvgQ: 7 11 2 2 10 8 18 22 22 6 31 31

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.874
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 23.5
Optimal Cycle: 92 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 5 0 5 5 5 0 0 5 5
Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 2 0 0 0 0 2 0 1

Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 0 0 0 416 0 54 40 1436 0 0 1061 255
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 0 0 0 474 0 62 46 1637 0 0 1210 291
Added Vol: 0 0 0 4 0 0 0 120 0 0 133 7
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 478 0 62 46 1757 0 0 1343 298
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: 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 Volume: 0 0 0 478 0 62 46 1757 0 0 1343 298
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 478 0 62 46 1757 0 0 1343 298
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 0 0 478 0 62 46 1757 0 0 1343 298

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.93 1.00 0.83 0.93 0.93 1.00 1.00 0.93 0.83
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 0 0 0 1769 0 1583 1769 3538 0 0 3538 1583

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.27 0.00 0.04 0.03 0.50 0.00 0.00 0.38 0.19
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.31 0.00 0.31 0.07 0.57 0.00 0.00 0.50 0.50
Volume/Cap: 0.00 0.00 0.00 0.87 0.00 0.13 0.36 0.87 0.00 0.00 0.77 0.38
Uniform Del: 0.0 0.0 0.0 29.4 0.0 22.3 39.7 16.7 0.0 0.0 18.4 14.1
IncrementDel: 0.0 0.0 0.0 14.5 0.0 0.1 1.7 4.6 0.0 0.0 2.1 0.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Delay/Veh: 0.0 0.0 0.0 43.9 0.0 22.4 41.4 21.2 0.0 0.0 20.5 14.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 43.9 0.0 22.4 41.4 21.2 0.0 0.0 20.5 14.4
LOS by Move: A A A D A C D C A A C B
HCM2kAvgQ: 0 0 0 16 0 1 2 25 0 0 17 5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.813
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 18.3
Optimal Cycle: 66 Level Of Service: B

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Protected), Rights (Include, Exclude), Min. Green, Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 4:00 - 5:00 PM. Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module: Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.901
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 15.9
Optimal Cycle: 99 Level Of Service: B

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Protected), Rights (Include, Exclude), Min. Green, Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 5:00 - 6:00 PM. Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module: Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.839
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 13.9
Optimal Cycle: 73 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 time slots. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with 12 columns: Sat/Lane, Adjustment, Lanes, Final Sat. Rows include Sat/Lane, Adjustment, Lanes, Final Sat.

Table with 12 columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.505
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 205.7
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 time slots. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with 12 columns: Sat/Lane, Adjustment, Lanes, Final Sat. Rows include Sat/Lane, Adjustment, Lanes, Final Sat.

Table with 12 columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 150 Critical Vol./Cap. (X): 1.531
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 235.7
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 377 968 0 0 3488 127 60 0 1667 0 0 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.89 1.00 1.00 0.89 0.83 0.90 1.00 0.73 1.00 1.00 1.00

Capacity Analysis Module:
Vol/Sat: 0.13 0.24 0.00 0.00 0.84 0.12 0.02 0.00 0.46 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.08 0.63 0.00 0.00 0.55 0.55 0.30 0.00 0.30 0.00 0.00 0.00

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 0.774
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.7
Optimal Cycle: 66 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 0 0 0 120 0 99 20 1599 0 0 454 16
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.90 1.00 0.90 0.93 0.93 1.00 1.00 0.93 0.93

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.15 0.00 0.15 0.01 0.52 0.00 0.00 0.17 0.17
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.20 0.00 0.20 0.18 0.67 0.00 0.00 0.50 0.50

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap. (X): 0.739
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 17.7
Optimal Cycle: 85 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 1 1 0 1 0 1 1 0

Volume Module:

Base Vol: 35 31 12 19 29 82 26 1579 19 18 527 13
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 40 35 14 22 33 93 30 1800 22 21 601 15
Added Vol: 0 0 0 0 0 0 0 20 0 0 42 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 40 35 14 22 33 93 30 1820 22 21 643 15
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: 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 Volume: 40 35 14 22 33 93 30 1820 22 21 643 15
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 40 35 14 22 33 93 30 1820 22 21 643 15
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: 40 35 14 22 33 93 30 1820 22 21 643 15

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.96 0.96 0.96 0.91 0.91 0.91 0.95 0.95 0.95 0.95 0.95 0.95
Lanes: 0.45 0.40 0.15 0.15 0.22 0.63 1.00 1.98 0.02 1.00 1.95 0.05
Final Sat.: 816 723 280 252 385 1089 1805 3560 42 1805 3518 81

Capacity Analysis Module:

Vol/Sat: 0.05 0.05 0.05 0.09 0.09 0.09 0.02 0.51 0.51 0.01 0.18 0.18
Crit Moves: ****
Green/Cycle: 0.06 0.06 0.06 0.11 0.11 0.11 0.15 0.66 0.66 0.05 0.56 0.56
Volume/Cap: 0.76 0.77 0.77 0.77 0.78 0.78 0.11 0.77 0.77 0.23 0.33 0.33
Uniform Del: 46.0 46.1 46.1 43.2 43.3 43.3 36.4 11.5 11.5 45.6 11.8 11.8
IncrementDel: 24.4 26.3 26.3 17.0 17.8 17.8 0.2 1.6 1.6 1.3 0.1 0.1
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 70.4 72.4 72.4 60.2 61.1 61.1 36.6 13.1 13.1 46.9 11.9 11.9
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: 70.4 72.4 72.4 60.2 61.1 61.1 36.6 13.1 13.1 46.9 11.9 11.9
LOS by Move: E E E E E E D B B D B B
HCM2kAvgQ: 4 4 4 6 6 6 1 22 22 1 6 6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap. (X): 0.924
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 39.8
Optimal Cycle: 121 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 1 1 0 0 1 1 0 1 0 1 1 0 1 0 1 1 0

Volume Module:

Base Vol: 150 219 345 94 262 110 93 1291 87 119 540 49
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 171 250 393 107 299 125 106 1472 99 136 616 56
Added Vol: 0 0 0 0 0 0 0 20 0 0 42 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 171 250 393 107 299 125 106 1492 99 136 658 56
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: 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 Volume: 171 250 393 107 299 125 106 1492 99 136 658 56
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 171 250 393 107 299 125 106 1492 99 136 658 56
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: 171 250 393 107 299 125 106 1492 99 136 658 56

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.98 0.98 0.85 0.95 1.00 0.85 0.95 0.94 0.94 0.95 0.94 0.94
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.88 0.12 1.00 1.84 0.16
Final Sat.: 1862 1862 1615 1805 1900 1615 1805 3354 223 1805 3287 279

Capacity Analysis Module:

Vol/Sat: 0.09 0.13 0.24 0.06 0.16 0.08 0.06 0.44 0.44 0.08 0.20 0.20
Crit Moves: ****
Green/Cycle: 0.12 0.26 0.26 0.06 0.21 0.21 0.13 0.48 0.48 0.08 0.43 0.43
Volume/Cap: 0.76 0.51 0.92 0.92 0.76 0.38 0.46 0.92 0.92 0.92 0.46 0.46
Uniform Del: 42.6 31.3 35.9 46.5 37.3 34.1 40.4 24.2 24.2 45.6 20.0 20.0
IncrementDel: 6.1 0.5 25.9 60.3 8.4 0.7 1.5 8.9 8.9 52.1 0.2 0.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 48.6 31.9 61.7 106.8 45.7 34.8 41.9 33.2 33.2 97.7 20.2 20.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 48.6 31.9 61.7 106.8 45.7 34.8 41.9 33.2 33.2 97.7 20.2 20.2
LOS by Move: D C E F D C D C F C C
HCM2kAvgQ: 7 7 16 6 10 4 4 29 29 7 8 8

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap. (X): 0.776
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 24.8
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights. Includes lane counts and control types like Protected and Permitted.

Volume Module table with 12 columns for different approaches and 12 rows for various volume metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 12 columns for approaches and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for approaches and 16 rows for various capacity and delay metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #23 University & Bell

Cycle (sec): 90 Critical Vol./Cap. (X): 0.611
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 8.2
Optimal Cycle: 86 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights. Includes lane counts and control types like Permitted and Include.

Volume Module table with 12 columns for different approaches and 12 rows for various volume metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 12 columns for approaches and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for approaches and 16 rows for various capacity and delay metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap. (X): 0.972
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 44.9
Optimal Cycle: 159 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 12 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 90 Critical Vol./Cap. (X): 0.535
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 14.3
Optimal Cycle: 82 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 12 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue, Note: Queue reported is the number of cars per lane).

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #26 University & SB US 101

Cycle (sec): 90 Critical Vol./Cap. (X): 0.592
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 34.2
Optimal Cycle: 180 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Includes Control, Rights, and Lanes information.

Volume Module:

Table with 12 columns for traffic volume and 12 columns for saturation flow. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module:

Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat. values.

Capacity Analysis Module:

Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #27 University Ave. & Woodland

Cycle (sec): 110 Critical Vol./Cap. (X): 0.998
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 60.0
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Includes Control, Rights, and Lanes information.

Volume Module:

Table with 12 columns for traffic volume and 12 columns for saturation flow. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module:

Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat. values.

Capacity Analysis Module:

Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.666
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 35.1
Optimal Cycle: 85 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Include), Rights (Min. Green, Lanes).

Volume Module:
Base Vol: 30 377 86 82 384 76 59 328 23 71 442 88
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 34 430 98 93 438 87 67 374 26 81 504 100
Added Vol: 0 36 2 16 75 9 1 39 1 14 15 12
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 34 466 100 109 513 96 68 413 27 95 519 112
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: 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 Volume: 34 466 100 109 513 96 68 413 27 95 519 112
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 34 466 100 109 513 96 68 413 27 95 519 112
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: 34 466 100 109 513 96 68 413 27 95 519 112

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.92 0.92 0.92 0.92 0.92 0.95 0.94 0.94 0.95 0.92 0.92
Lanes: 0.11 1.56 0.33 0.30 1.43 0.27 1.00 1.88 0.12 1.00 1.64 0.36
Final Sat.: 200 2724 585 535 2507 468 1805 3356 221 1805 2887 625

Capacity Analysis Module:
Vol/Sat: 0.17 0.17 0.17 0.20 0.20 0.20 0.04 0.12 0.12 0.05 0.18 0.18
Crit Moves: ****
Green/Cycle: 0.26 0.26 0.26 0.31 0.31 0.31 0.06 0.23 0.23 0.10 0.27 0.27
Volume/Cap: 0.67 0.67 0.67 0.67 0.67 0.67 0.67 0.54 0.54 0.54 0.67 0.67
Uniform Del: 33.3 33.3 33.3 30.2 30.2 30.2 46.2 33.9 33.9 43.0 32.5 32.5
IncrementDel: 1.9 1.9 1.9 1.6 1.6 1.6 15.5 0.7 0.7 3.3 1.8 1.8
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 35.2 35.2 35.2 31.8 31.8 31.8 61.7 34.6 34.6 46.2 34.3 34.3
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: 35.2 35.2 35.2 31.8 31.8 31.8 61.7 34.6 34.6 46.2 34.3 34.3
LOS by Move: D D D C C C E C C D C C
HCM2kAvgQ: 10 10 10 11 11 11 3 7 7 4 10 10

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.180
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 102.7
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Split Phase, Include), Rights (Min. Green, Lanes).

Volume Module:5:00 - 6:00 AM
Base Vol: 10 932 0 0 2235 16 334 0 76 0 0 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 11 1062 0 0 2548 18 381 0 87 0 0 0
Added Vol: 38 141 0 0 25 0 618 0 86 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 49 1203 0 0 2573 18 999 0 173 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: 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 Volume: 49 1203 0 0 2573 18 999 0 173 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 49 1203 0 0 2573 18 999 0 173 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: 49 1203 0 0 2573 18 999 0 173 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.89 1.00 1.00 0.89 0.83 0.93 1.00 0.83 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.: 1769 5083 0 0 5083 1583 1769 0 1583 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.03 0.24 0.00 0.00 0.51 0.01 0.56 0.00 0.11 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.04 0.46 0.00 0.00 0.42 0.42 0.47 0.00 0.47 0.00 0.00 0.00
Volume/Cap: 0.73 0.51 0.00 0.00 1.20 0.03 1.20 0.00 0.23 0.00 0.00 0.00
Uniform Del: 61.8 24.8 0.0 0.0 37.6 22.0 34.4 0.0 20.5 0.0 0.0 0.0
IncrementDel: 32.1 0.2 0.0 0.0 94.8 0.0 101.5 0.0 0.2 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00
Delay/Veh: 93.9 25.0 0.0 0.0 132 22.0 135.9 0.0 20.6 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: 93.9 25.0 0.0 0.0 132 22.0 135.9 0.0 20.6 0.0 0.0 0.0
LOS by Move: F C A A F C F A C A A A
HCM2kAvgQ: 3 12 0 0 58 0 62 0 4 0 0 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #30 Bayfront Exp. & Chilco St.
Cycle (sec): 130 Critical Vol./Cap. (X): 0.770
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 19.6
Optimal Cycle: 66 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights. Includes lane counts and control types like Protected and Split Phase.

Volume Module: >> Count Date: 20 Oct 2009 << 4:45 - 5:45 PM. Table showing traffic volume and saturation for various approaches and movements.

Saturation Flow Module: Table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values for each approach.

Capacity Analysis Module: Table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, and other performance metrics for each approach.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #31 Middlefield Rd. & Ravenswood Ave.
Cycle (sec): 120 Critical Vol./Cap. (X): 0.874
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 32.6
Optimal Cycle: 75 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights. Includes lane counts and control types like Protected and Split Phase.

Volume Module: >> Count Date: 20 Oct 2009 << 5:00 - 6:00 PM. Table showing traffic volume and saturation for various approaches and movements.

Saturation Flow Module: Table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values for each approach.

Capacity Analysis Module: Table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, and other performance metrics for each approach.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.708
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 30.0
Optimal Cycle: 37 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include), and Lanes.

Volume Module: >> Count Date: 21 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 49 761 127 356 628 36 75 76 62 73 8 266
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.93 0.83 0.93 0.93 0.83 0.61 0.91 0.91 0.60 0.60 0.83

Capacity Analysis Module:
Vol/Sat: 0.03 0.26 0.09 0.23 0.23 0.03 0.07 0.09 0.09 0.08 0.08 0.19
Crit Moves: ****
Green/Cycle: 0.09 0.37 0.37 0.33 0.60 0.60 0.28 0.28 0.28 0.28 0.28 0.28

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 110 Critical Vol./Cap. (X): 0.849
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 44.4
Optimal Cycle: 91 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase), Rights (Include), and Lanes.

Volume Module:
Base Vol: 89 457 24 24 508 163 419 135 78 7 55 12
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.94 0.94 0.94 0.92 0.92 0.92 0.95 0.95 0.95 0.97 0.97 0.97

Capacity Analysis Module:
Vol/Sat: 0.20 0.20 0.20 0.26 0.26 0.26 0.18 0.27 0.27 0.05 0.05 0.05
Crit Moves: ****
Green/Cycle: 0.23 0.23 0.23 0.30 0.30 0.30 0.31 0.31 0.31 0.05 0.05 0.05

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec): 100 Critical Vol./Cap. (X): 0.618
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 1.6
Optimal Cycle: 90 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: Table with 12 columns and 16 rows listing various volume and adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 12 columns and 4 rows listing saturation flow and adjustment factors like Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns and 13 rows listing capacity analysis factors like Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: Cumulative 2025 East Campus Only AM

Command: Long Term Project I AM
 Volume: Long Term Project I AM
 Geometry: Long Term Project I AM
 Impact Fee: Default Impact Fee
 Trip Generation: Long Term Project I AM
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Long Term Project I AM

Impact Analysis Report
 Level Of Service

Intersection		Base		Future		Change in	
		Del/ LOS	V/ Veh	Del/ LOS	V/ Veh		
# 1	Bayfront Exp. & Marsh Rd.	C	25.2 0.842	C	26.3 0.882	+ 1.101	D/V
# 2	US 101 NB Ramps & Marsh Rd.	B	16.9 0.700	E	55.2 1.115	+38.251	D/V
# 3	US 101 SB Ramps & Marsh Rd.	C	26.5 0.944	C	32.9 0.987	+ 6.398	D/V
# 4	Scott Dr/Rolison at Marsh Rd.	D	41.1 0.901	D	35.8 0.934	-5.295	D/V
# 5	Bohannon/ Florence & Marsh Rd.	C	20.8 0.620	B	15.6 0.649	-5.200	D/V
# 6	Bay Rd. & Marsh Rd.	B	17.4 0.644	B	17.9 0.735	+ 0.508	D/V
# 7	Middlefield at Marsh (Town of	C	29.8 0.669	C	29.2 0.812	-0.601	D/V
# 8	Bayfront Exp. & Willow Rd.	C	28.6 0.668	D	48.8 0.929	+20.166	D/V
# 9	Hamilton Ave. & Willow Rd.	C	23.7 0.613	C	21.8 0.656	-1.898	D/V
# 10	Ivy Dr. & Willow Rd.	B	18.7 0.567	C	23.9 0.681	+ 5.178	D/V
# 11	O'Brien Dr. & Willow Rd.	B	15.4 0.508	B	14.0 0.647	-1.381	D/V
# 12	Newbridge St. & Willow Rd.	E	59.2 0.990	E	62.7 1.036	+ 3.424	D/V
# 13	Bay Rd. & Willow Rd.	C	21.6 0.760	C	22.5 0.838	+ 0.865	D/V
# 14	Durham St. & Willow Rd.	D	35.1 0.782	B	15.6 0.846	-19.566	D/V
# 15	Coleman Ave. & Willow Rd.	B	15.3 0.784	C	20.5 0.905	+ 5.218	D/V
# 16	Gilbert Ave. & Willow Rd.	B	15.7 0.726	B	19.6 0.874	+ 3.914	D/V
# 17	Middlefield Rd. & Willow Rd.	F	114.7 1.038	F	136.8 1.269	+22.155	D/V
# 18	Bayfront Exp. & University Ave	C	32.7 0.882	D	36.1 0.915	+ 3.450	D/V
# 19	O'Brien Dr. & University Ave.	A	6.8 0.600	A	6.7 0.612	-0.093	D/V
# 20	University & Kavanaugh	B	14.4 0.617	B	14.1 0.624	-0.261	D/V
# 21	University & Bay	C	29.3 0.724	C	28.8 0.731	-0.410	D/V
# 22	University & Runnymede	C	21.7 0.687	C	21.5 0.694	-0.216	D/V
# 23	University & Bell	A	7.7 0.270	A	7.2 0.303	-0.471	D/V
# 24	University & Donohoe	D	51.0 1.014	D	54.3 1.036	+ 3.317	D/V
# 25	NB 101 & Donohoe St	B	9.1 0.418	B	9.4 0.443	+ 0.247	D/V

Intersection		Base		Future		Change in
		Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C	
# 26 University & SB US 101	B	18.1	0.704	18.5	0.718	+ 0.445 D/V
# 27 University Ave. & Woodland	D	50.1	0.977	52.3	0.992	+ 2.205 D/V
# 28 Middlefield Rd. & University A	D	38.2	0.805	48.5	0.907	+10.300 D/V
# 29 Bayfront Exp. & Chrysler Dr.	A	7.6	0.640	17.5	0.741	+ 9.830 D/V
# 30 Bayfront Exp. & Chilco St.	B	17.8	0.650	20.1	0.678	+ 2.312 D/V
# 31 Middlefield Rd. & Ravenswood A	C	23.4	0.664	26.3	0.745	+ 2.840 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	29.2	0.515	25.6	0.541	-3.586 D/V
# 33 Middlefield Rd and Lytton Ave	C	31.3	0.652	33.0	0.706	+ 1.717 D/V
# 34 Bayfront Expy. and Facebook We	A	1.4	0.549	1.5	0.596	+ 0.126 D/V

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.882
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 26.3
Optimal Cycle: 114 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	3	0	0	1	0	1	0	1	0	0	2	0

Volume Module: >> Count Date: 22 Oct 2009 << 7:45 - 8:45 AM

Base Vol:	2297	189	23	7	58	148	182	20	997	7	19	5
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Initial Bse:	2619	215	26	8	66	169	207	23	1137	8	22	6
Added Vol:	186	0	0	0	0	0	0	0	443	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2805	215	26	8	66	169	207	23	1580	8	22	6
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:	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 Volume:	2805	215	26	8	66	169	207	23	1580	8	22	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2805	215	26	8	66	169	207	23	1580	8	22	6
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	2805	215	26	8	66	169	207	23	1580	8	22	6

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.96	0.96	0.93	0.93	0.83	0.94	0.94	0.73	0.95	0.95	0.95
Lanes:	3.00	0.89	0.11	0.22	1.78	1.00	0.90	0.10	2.00	0.23	0.61	0.16
Final Sat.:	5147	1633	199	379	3141	1583	1606	176	2786	407	1104	290

Capacity Analysis Module:

Vol/Sat:	0.54	0.13	0.13	0.02	0.02	0.11	0.13	0.13	0.57	0.02	0.02	0.02
Crit Moves:	****			****			****			****		
Green/Cycle:	0.61	0.61	0.61	0.12	0.12	0.12	0.14	0.14	0.75	0.04	0.04	0.04
Volume/Cap:	0.90	0.22	0.22	0.18	0.18	0.90	0.90	0.90	0.76	0.51	0.51	0.51
Uniform Del:	22.1	11.6	11.6	51.6	51.6	56.5	54.7	54.7	9.3	61.3	61.3	61.3
IncrementDel:	3.9	0.1	0.1	0.2	0.2	38.5	30.9	30.9	1.6	6.2	6.2	6.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	26.0	11.7	11.7	51.8	51.8	95.0	85.6	85.6	11.0	67.5	67.5	67.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	26.0	11.7	11.7	51.8	51.8	95.0	85.6	85.6	11.0	67.5	67.5	67.5
LOS by Move:	C	B	B	D	D	F	F	F	B	E	E	E
HCM2kAvgQ:	36	4	4	1	1	10	12	12	22	2	2	2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 US 101 NB Ramps & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 1.115
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 55.2
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Split Phase, Permitted), Rights (Include, Ignore), Min. Green (5 0 5), Lanes (2 0 0 0 1)

Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM
Base Vol: 818 0 289 0 0 0 0 1138 506 0 821 1699
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 933 0 329 0 0 0 0 1297 577 0 936 1937
Added Vol: 2 0 394 0 0 0 0 2 593 0 0 151 36
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 935 0 723 0 0 0 0 2 1890 577 0 1087 1973
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Volume: 935 0 723 0 0 0 0 2 1890 0 0 1087 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 935 0 723 0 0 0 0 2 1890 0 0 1087 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 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
Final Volume: 935 0 723 0 0 0 0 2 1890 0 0 1087 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.00 0.83 1.00 1.00 1.00 0.89 0.89 1.00 1.00 0.93 1.00
Lanes: 2.00 0.00 1.00 0.00 0.00 0.00 0.01 1.99 1.00 0.00 2.00 1.00
Final Sat.: 3432 0 1583 0 0 0 4 3375 1900 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.27 0.00 0.46 0.00 0.00 0.00 0.56 0.56 0.00 0.00 0.31 0.00
Crit Moves: ****
Green/Cycle: 0.41 0.00 0.41 0.00 0.00 0.00 0.50 0.50 0.00 0.00 0.50 0.00
Volume/Cap: 0.66 0.00 1.11 0.00 0.00 0.00 1.11 1.11 0.00 0.00 0.61 0.00
Uniform Del: 19.1 0.0 23.6 0.0 0.0 0.0 19.9 19.9 0.0 0.0 14.3 0.0
IncrementDel: 1.2 0.0 71.2 0.0 0.0 0.0 60.4 60.4 0.0 0.0 0.6 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 20.3 0.0 94.8 0.0 0.0 0.0 80.3 80.3 0.0 0.0 14.9 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 20.3 0.0 94.8 0.0 0.0 0.0 80.3 80.3 0.0 0.0 14.9 0.0
LOS by Move: C A F A A A F F A A B A
HCM2kAvgQ: 11 0 31 0 0 0 41 41 0 0 11 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 US 101 SB Ramps & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.987
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 32.9
Optimal Cycle: 159 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Split Phase, Permitted), Rights (Include, Ignore), Min. Green (0 0 0), Lanes (0 0 0 0 1)

Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM
Base Vol: 0 0 0 879 0 558 0 834 583 0 1426 86
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 0 0 0 1002 0 636 0 951 665 0 1626 98
Added Vol: 0 0 0 315 0 33 0 292 0 0 64 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 1317 0 669 0 1243 665 0 1690 98
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Volume: 0 0 0 1317 0 669 0 1243 0 0 1690 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 1317 0 669 0 1243 0 0 1690 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 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
Final Volume: 0 0 0 1317 0 669 0 1243 0 0 1690 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.90 1.00 0.83 1.00 0.93 1.00 1.00 0.93 1.00
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 0.00 2.00 1.00 0.00 2.00 1.00
Final Sat.: 0 0 0 3432 0 1583 0 3538 1900 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.38 0.00 0.42 0.00 0.35 0.00 0.00 0.48 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.43 0.00 0.43 0.00 0.48 0.00 0.00 0.48 0.00
Volume/Cap: 0.00 0.00 0.00 0.90 0.00 0.99 0.00 0.73 0.00 0.00 0.99 0.00
Uniform Del: 0.0 0.0 0.0 21.2 0.0 22.6 0.0 16.4 0.0 0.0 20.4 0.0
IncrementDel: 0.0 0.0 0.0 7.5 0.0 31.1 0.0 1.6 0.0 0.0 18.6 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 0.0 0.0 0.0 28.8 0.0 53.7 0.0 18.0 0.0 0.0 39.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 28.8 0.0 53.7 0.0 18.0 0.0 0.0 39.0 0.0
LOS by Move: A A A C A D A B A A D A
HCM2kAvgQ: 0 0 0 20 0 23 0 14 0 0 29 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.934
Loss Time (sec): 14 (Y+R=4.0 sec) Average Delay (sec/veh): 35.8
Optimal Cycle: 112 Level Of Service: D

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include, Include, Include), Min. Green (4, 4, 4, 4), Lanes (0, 1, 0, 0, 2, 0, 1, 0, 0, 1, 1, 0, 2, 1, 0, 2, 0, 1, 1, 0)

Volume Module: >> Count Date: 8 Oct 2009 << 7:15 - 8:15 AM
Base Vol: 27 3 49 222 18 3 15 1131 29 268 1416 280
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 31 3 56 253 21 3 17 1289 33 306 1614 319
Added Vol: 0 0 0 0 0 0 0 0 293 0 0 97 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 31 3 56 253 21 3 17 1582 33 306 1711 319
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: 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 Volume: 31 3 56 253 21 3 17 1582 33 306 1711 319
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 31 3 56 253 21 3 17 1582 33 306 1711 319
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 31 3 56 253 21 3 17 1582 33 306 1711 319

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.94 0.94 0.73 0.94 0.94 0.83 0.93 0.89 0.89 0.90 0.91 0.91
Lanes: 0.90 0.10 2.00 0.93 0.07 1.00 1.00 2.94 0.06 2.00 1.69 0.31
Final Sat.: 1604 178 2786 1647 134 1583 1769 4964 104 3432 2910 543

Capacity Analysis Module:
Vol/Sat: 0.02 0.02 0.02 0.15 0.15 0.00 0.01 0.32 0.32 0.09 0.59 0.59
Crit Moves: ****
Green/Cycle: 0.05 0.05 0.05 0.15 0.15 0.15 0.05 0.49 0.49 0.14 0.57 0.57
Volume/Cap: 0.38 0.38 0.40 1.02 1.02 0.01 0.19 0.65 0.65 0.65 1.02 1.02
Uniform Del: 36.8 36.8 36.8 34.0 34.0 28.9 36.5 15.4 15.4 32.7 17.0 17.0
IncrementDel: 2.7 2.7 1.9 61.1 61.1 0.0 1.1 0.6 0.6 3.3 26.3 26.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 39.5 39.5 38.7 95.1 95.1 29.0 37.5 16.0 16.0 36.0 43.3 43.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 39.5 39.5 38.7 95.1 95.1 29.0 37.5 16.0 16.0 36.0 43.3 43.3
LOS by Move: D D D F F C D B B D D D
HCM2kAvgQ: 1 1 1 12 12 0 1 12 12 5 37 37

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.649
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.6
Optimal Cycle: 30 Level Of Service: B

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include, Include, Include), Min. Green (4, 4, 4, 4), Lanes (1, 0, 0, 1, 0, 1, 1, 0, 0, 1, 1, 0, 1, 0, 2, 0, 1)

Volume Module: >> Count Date: 7 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 15 9 8 390 30 91 117 796 58 46 1141 323
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 17 10 9 445 34 104 133 907 66 52 1301 368
Added Vol: 0 0 0 0 0 0 0 0 293 0 0 97 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 17 10 9 445 34 104 133 1200 66 52 1398 368
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: 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 Volume: 17 10 9 445 34 104 133 1200 66 52 1398 368
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 17 10 9 445 34 104 133 1200 66 52 1398 368
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 17 10 9 445 34 104 133 1200 66 52 1398 368

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.91 0.91 0.94 0.94 0.83 0.93 0.92 0.92 0.93 0.93 0.83
Lanes: 1.00 0.53 0.47 1.86 0.14 1.00 1.00 1.90 0.10 1.00 2.00 1.00
Final Sat.: 1769 916 814 3306 254 1583 1769 3326 183 1769 3538 1583

Capacity Analysis Module:
Vol/Sat: 0.01 0.01 0.01 0.13 0.13 0.07 0.08 0.36 0.36 0.03 0.40 0.23
Crit Moves: ****
Green/Cycle: 0.05 0.05 0.05 0.20 0.20 0.20 0.11 0.61 0.61 0.09 0.59 0.59
Volume/Cap: 0.19 0.22 0.22 0.67 0.67 0.33 0.67 0.59 0.59 0.35 0.67 0.40
Uniform Del: 36.5 36.5 36.5 29.6 29.6 27.4 34.1 9.3 9.3 34.5 11.2 8.9
IncrementDel: 1.1 1.3 1.3 2.5 2.5 0.6 8.7 0.4 0.4 1.4 0.9 0.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 37.5 37.8 37.8 32.1 32.1 28.0 42.8 9.7 9.7 35.9 12.1 9.1
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: 37.5 37.8 37.8 32.1 32.1 28.0 42.8 9.7 9.7 35.9 12.1 9.1
LOS by Move: D D D C C C D A A D B A
HCM2kAvgQ: 1 1 1 7 7 2 5 10 10 2 13 5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Bay Rd. & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.735
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 17.9
Optimal Cycle: 38 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Middlefield at Marsh (Town of Atherton)
Cycle (sec): 110 Critical Vol./Cap. (X): 0.812
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 29.2
Optimal Cycle: 76 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.929
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 48.8
Optimal Cycle: 145 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Split Phase), and Lanes.

Table with 4 columns: Volume Module, Count, Date (1 Oct 2009), and Time (7:45 - 8:45 AM). Rows include Base Vol, Growth Adj, Initial Bse, etc.

Table with 4 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 4 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.656
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 21.8
Optimal Cycle: 54 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Protected), and Lanes.

Table with 4 columns: Volume Module, Count, Date (7 Oct 2009), and Time (8:00 am - 9:00 am). Rows include Base Vol, Growth Adj, Initial Bse, etc.

Table with 4 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 4 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.681
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 23.9
Optimal Cycle: 57 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 5 0 5 5 5 0 0 5 5
Lanes: 0 0 0 0 0 0 0 1 0 0 1 0 2 0 0 0 0 1 1 0

Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 0 0 0 1 0 186 82 652 0 0 1021 14
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 0 0 0 1 0 212 93 743 0 0 1164 16
Added Vol: 0 0 0 115 0 6 7 740 0 0 102 9
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 116 0 218 100 1483 0 0 1266 25
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 0 0 0 116 0 218 100 1483 0 0 1266 25
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 116 0 218 100 1483 0 0 1266 25
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 116 0 218 100 1483 0 0 1266 25

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.88 1.00 0.88 0.93 0.93 1.00 1.00 0.93 0.93
Lanes: 0.00 0.00 0.00 0.35 0.00 0.65 1.00 2.00 0.00 0.00 1.96 0.04
Final Sat.: 0 0 0 580 0 1089 1769 3538 0 0 3459 68

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.20 0.00 0.20 0.06 0.42 0.00 0.00 0.37 0.37
Crit Moves: **** **** ****
Green/Cycle: 0.00 0.00 0.00 0.29 0.00 0.29 0.08 0.62 0.00 0.00 0.54 0.54
Volume/Cap: 0.00 0.00 0.00 0.68 0.00 0.68 0.68 0.67 0.00 0.00 0.68 0.68
Uniform Del: 0.0 0.0 0.0 40.5 0.0 40.5 57.9 16.1 0.0 0.0 21.9 21.9
IncrementDel: 0.0 0.0 0.0 3.9 0.0 3.9 12.2 0.8 0.0 0.0 1.0 1.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Delay/Veh: 0.0 0.0 0.0 44.4 0.0 44.4 70.1 16.9 0.0 0.0 22.9 22.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 44.4 0.0 44.4 70.1 16.9 0.0 0.0 22.9 22.9
LOS by Move: A A A D A D E B A A C C
HCM2kAvgQ: 0 0 0 13 0 13 5 20 0 0 20 20

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.647
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.0
Optimal Cycle: 52 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 0 5 0 0 0 0 5 5 5 5 0
Lanes: 1 0 1 0 0 0 0 0 0 0 0 2 0 1 1 0 2 0 0

Volume Module: >> Count Date: 8 Oct 2009 << 8:00 am - 9:00 am
Base Vol: 130 0 67 0 0 0 0 697 250 102 1171 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 148 0 76 0 0 0 0 795 285 116 1335 0
Added Vol: 10 0 0 0 0 0 0 747 2 0 108 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 158 0 76 0 0 0 0 1542 287 116 1443 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: 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 Volume: 158 0 76 0 0 0 0 1542 287 116 1443 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 158 0 76 0 0 0 0 1542 287 116 1443 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: 158 0 76 0 0 0 0 1542 287 116 1443 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.00 0.90 1.00 1.00 1.00 1.00 0.93 0.83 0.93 0.93 1.00
Lanes: 1.51 0.00 0.49 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 2583 0 841 0 0 0 0 3538 1583 1769 3538 0

Capacity Analysis Module:
Vol/Sat: 0.06 0.00 0.09 0.00 0.00 0.00 0.00 0.44 0.18 0.07 0.41 0.00
Crit Moves: **** **** ****
Green/Cycle: 0.14 0.00 0.14 0.00 0.00 0.00 0.00 0.67 0.67 0.10 0.78 0.00
Volume/Cap: 0.44 0.00 0.65 0.00 0.00 0.00 0.00 0.65 0.27 0.65 0.53 0.00
Uniform Del: 51.2 0.0 52.8 0.0 0.0 0.0 0.0 12.3 8.5 56.2 5.6 0.0
IncrementDel: 0.6 0.0 4.0 0.0 0.0 0.0 0.0 0.6 0.1 8.0 0.2 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00 0.00
Delay/Veh: 51.7 0.0 56.9 0.0 0.0 0.0 0.0 12.9 8.6 64.1 5.7 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 51.7 0.0 56.9 0.0 0.0 0.0 0.0 12.9 8.6 64.1 5.7 0.0
LOS by Move: D A E A A A A B A E A A
HCM2kAvgQ: 4 0 7 0 0 0 0 19 5 6 12 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.036
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 62.7
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Ignore), Min. Green, Lanes.

Table with 12 columns: Volume Module, Count, Date, and 11 volume categories (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume).

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.838
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 22.5
Optimal Cycle: 84 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Ignore), Min. Green, Lanes.

Table with 12 columns: Volume Module, Count, Date, and 11 volume categories (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume).

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.846
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 15.6
Optimal Cycle: 74 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Permitted, Protected), Rights (Include, Include, Include, Include). Includes Min. Green and Lanes values.

Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 62 16 125 38 2 2 12 1001 9 41 850 142
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 71 18 143 43 2 2 14 1141 10 47 969 162
Added Vol: 0 0 0 0 0 0 0 0 242 0 0 110 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 71 18 143 43 2 2 14 1383 10 47 1079 162
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: 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 Volume: 71 18 143 43 2 2 14 1383 10 47 1079 162
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 71 18 143 43 2 2 14 1383 10 47 1079 162
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 71 18 143 43 2 2 14 1383 10 47 1079 162

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.72 0.85 0.85 0.40 0.40 0.83 0.93 0.93 0.93 0.93 0.96 0.96
Lanes: 1.00 0.11 0.89 0.95 0.05 1.00 1.00 1.99 0.01 1.00 0.87 0.13
Final Sat.: 1359 183 1431 729 38 1583 1769 3508 26 1769 1588 238

Capacity Analysis Module:
Vol/Sat: 0.05 0.10 0.10 0.06 0.06 0.00 0.01 0.39 0.39 0.03 0.68 0.68
Crit Moves: ****
Green/Cycle: 0.11 0.11 0.11 0.11 0.11 0.11 0.04 0.74 0.74 0.08 0.78 0.78
Volume/Cap: 0.46 0.88 0.88 0.52 0.52 0.01 0.19 0.53 0.53 0.35 0.88 0.88
Uniform Del: 41.4 43.6 43.6 41.8 41.8 39.3 46.4 5.5 5.5 43.9 7.8 7.8
IncrementDel: 2.1 34.2 34.2 5.6 5.6 0.0 1.3 0.2 0.2 1.6 6.4 6.4
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 43.6 77.8 77.8 47.4 47.4 39.4 47.8 5.7 5.7 45.5 14.2 14.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 43.6 77.8 77.8 47.4 47.4 39.4 47.8 5.7 5.7 45.5 14.2 14.2
LOS by Move: D E E D D D D A A D B B
HCM2kAvgQ: 3 8 8 2 2 0 1 10 10 2 30 30

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.905
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 20.5
Optimal Cycle: 100 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Permitted, Protected), Rights (Include, Include, Include, Include). Includes Min. Green and Lanes values.

Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM
Base Vol: 3 3 8 142 6 48 17 892 5 6 854 62
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 3 3 9 162 7 55 19 1017 6 7 974 71
Added Vol: 0 0 0 0 0 0 0 0 242 0 0 110 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 3 3 9 162 7 55 19 1259 6 7 1084 71
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 3 3 9 162 7 55 19 1259 6 7 1084 71
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 3 3 9 162 7 55 19 1259 6 7 1084 71
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 3 3 9 162 7 55 19 1259 6 7 1084 71

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.87 0.87 0.87 0.72 0.72 0.72 0.12 0.98 0.98 0.06 0.97 0.97
Lanes: 0.21 0.21 0.58 0.73 0.03 0.24 1.00 0.99 0.01 1.00 0.94 0.06
Final Sat.: 353 353 942 998 42 337 220 1852 8 114 1732 113

Capacity Analysis Module:
Vol/Sat: 0.01 0.01 0.01 0.16 0.16 0.16 0.09 0.68 0.68 0.06 0.63 0.63
Crit Moves: ****
Green/Cycle: 0.18 0.18 0.18 0.18 0.18 0.18 0.75 0.75 0.75 0.75 0.75 0.75
Volume/Cap: 0.05 0.05 0.05 0.91 0.91 0.91 0.12 0.91 0.91 0.08 0.83 0.83
Uniform Del: 34.0 34.0 34.0 40.2 40.2 40.2 3.4 9.7 9.7 3.3 8.3 8.3
IncrementDel: 0.1 0.1 0.1 33.3 33.3 33.3 0.3 8.7 8.7 0.4 4.5 4.5
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 34.1 34.1 34.1 73.5 73.5 73.5 3.7 18.4 18.4 3.7 12.8 12.8
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: 34.1 34.1 34.1 73.5 73.5 73.5 3.7 18.4 18.4 3.7 12.8 12.8
LOS by Move: C C C E E E A B B A B B
HCM2kAvgQ: 0 0 0 10 10 10 0 34 34 0 26 26

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.874
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 19.6
Optimal Cycle: 85 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM. Table with 12 columns for volume counts and 12 columns for adjustment factors.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.269
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 136.8
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 8:00 - 9:00 AM. Table with 12 columns for volume counts and 12 columns for adjustment factors.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 160 Critical Vol./Cap. (X): 0.915
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 36.1
Optimal Cycle: 141 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Split Phase), and Rights (Include, Include). Includes Min. Green and Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 7:15 - 8:15 AM
Base Vol: 1541 2882 0 0 884 188 179 0 429 0 0 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.89 1.00 1.00 0.89 0.83 0.90 1.00 0.73 1.00 1.00 1.00

Capacity Analysis Module:
Vol/Sat: 0.52 0.74 0.00 0.00 0.21 0.14 0.09 0.00 0.12 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.57 0.81 0.00 0.00 0.23 0.23 0.13 0.00 0.13 0.00 0.00 0.00

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 0.612
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 6.7
Optimal Cycle: 46 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Split Phase, Protected, Protected), and Rights (Include, Include, Include, Include). Includes Min. Green and Lanes.

Volume Module: >> Count Date: 8 Oct 2009 << 7:45 - 8:45 AM
Base Vol: 0 0 0 22 0 22 68 526 0 0 1341 46
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.89 1.00 0.89 0.93 0.93 1.00 1.00 0.93 0.93

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.03 0.00 0.03 0.04 0.20 0.00 0.00 0.46 0.46
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.06 0.00 0.06 0.07 0.81 0.00 0.00 0.74 0.74

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap. (X): 0.624
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.1
Optimal Cycle: 85 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns for Volume Module and 12 rows for various traffic metrics like Base Vol, Growth Adj, Initial Bse, etc.

Table with 12 columns for Saturation Flow Module and 4 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Table with 12 columns for Capacity Analysis Module and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap. (X): 0.731
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 28.8
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns for Volume Module and 12 rows for various traffic metrics like Base Vol, Growth Adj, Initial Bse, etc.

Table with 12 columns for Saturation Flow Module and 4 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Table with 12 columns for Capacity Analysis Module and 14 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap. (X): 0.694
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 21.5
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: Table with 12 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Table with 12 columns and 4 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns and 14 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #23 University & Bell

Cycle (sec): 95 Critical Vol./Cap. (X): 0.303
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 7.2
Optimal Cycle: 91 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: Table with 12 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Table with 12 columns and 4 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns and 14 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap. (X): 1.036
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 54.3
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Include), Rights (Min. Green, Lanes).

Table with 11 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume).

Table with 11 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat).

Table with 11 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 65 Critical Vol./Cap. (X): 0.443
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 9.4
Optimal Cycle: 57 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Include), Rights (Min. Green, Lanes).

Table with 11 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume).

Table with 11 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat).

Table with 11 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue).

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #26 University & SB US 101

Cycle (sec): 85 Critical Vol./Cap. (X): 0.718
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 18.5
Optimal Cycle: 180 Level Of Service: B

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Protected, Ovl, Include), Rights, Min. Green, Lanes.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #27 University Ave. & Woodland

Cycle (sec): 100 Critical Vol./Cap. (X): 0.992
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 52.3
Optimal Cycle: 180 Level Of Service: D

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Include), Rights, Min. Green, Lanes.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.907
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 48.5
Optimal Cycle: 111 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module:
Base Vol: 37 264 51 92 391 62 15 228 24 73 584 95
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 42 301 58 105 446 71 17 260 27 83 666 108
Added Vol: 1 104 41 6 28 2 25 21 0 3 36 9
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 43 405 99 111 474 73 42 281 27 86 702 117
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: 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 Volume: 43 405 99 111 474 73 42 281 27 86 702 117
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 43 405 99 111 474 73 42 281 27 86 702 117
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: 43 405 99 111 474 73 42 281 27 86 702 117

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.92 0.92 0.93 0.93 0.93 0.95 0.99 0.99 0.95 0.98 0.98
Lanes: 0.16 1.48 0.36 0.34 1.44 0.22 1.00 0.91 0.09 1.00 0.86 0.14
Final Sat.: 276 2589 634 594 2537 389 1805 1709 166 1805 1594 266

Capacity Analysis Module:
Vol/Sat: 0.16 0.16 0.16 0.19 0.19 0.19 0.02 0.16 0.16 0.05 0.44 0.44
Crit Moves: ****
Green/Cycle: 0.17 0.17 0.17 0.20 0.20 0.20 0.05 0.40 0.40 0.12 0.47 0.47
Volume/Cap: 0.93 0.93 0.93 0.93 0.93 0.93 0.47 0.41 0.41 0.39 0.93 0.93
Uniform Del: 41.1 41.1 41.1 39.3 39.3 39.3 46.2 21.5 21.5 40.5 24.9 24.9
IncrementDel: 22.0 22.0 22.0 19.3 19.3 19.3 3.8 0.4 0.4 1.2 16.4 16.4
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 63.0 63.0 63.0 58.6 58.6 58.6 50.0 21.9 21.9 41.7 41.3 41.3
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: 63.0 63.0 63.0 58.6 58.6 58.6 50.0 21.9 21.9 41.7 41.3 41.3
LOS by Move: E E E E E D C D D D
HCM2kAvgQ: 13 13 13 15 15 15 2 7 7 3 29 29

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.741
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 17.5
Optimal Cycle: 60 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module:
Base Vol: 45 2362 0 0 1034 31 103 0 6 0 0 0 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 51 2693 0 0 1179 35 117 0 7 0 0 0 0
Added Vol: 94 32 0 0 443 0 154 0 21 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 145 2725 0 0 1622 35 271 0 28 0 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: 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 Volume: 145 2725 0 0 1622 35 271 0 28 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 145 2725 0 0 1622 35 271 0 28 0 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: 145 2725 0 0 1622 35 271 0 28 0 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.89 1.00 1.00 0.89 0.83 0.93 1.00 0.83 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.: 1769 5083 0 0 5083 1583 1769 0 1583 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.08 0.54 0.00 0.00 0.32 0.02 0.15 0.00 0.02 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.15 0.72 0.00 0.00 0.58 0.58 0.21 0.00 0.21 0.00 0.00 0.00
Volume/Cap: 0.55 0.74 0.00 0.00 0.55 0.04 0.74 0.00 0.08 0.00 0.00 0.00
Uniform Del: 51.4 10.7 0.0 0.0 17.2 12.0 48.3 0.0 41.6 0.0 0.0 0.0
IncrementDel: 2.6 0.8 0.0 0.0 0.2 0.0 7.9 0.0 0.1 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00
Delay/Veh: 54.0 11.5 0.0 0.0 17.4 12.0 56.1 0.0 41.7 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: 54.0 11.5 0.0 0.0 17.4 12.0 56.1 0.0 41.7 0.0 0.0 0.0
LOS by Move: D B A A B B E A D A A A
HCM2kAvgQ: 6 24 0 0 15 1 12 0 1 0 0 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.678
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 20.1
Optimal Cycle: 50 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 time slots (7:45 - 8:45 AM). Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. for 10 time slots.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.745
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 26.3
Optimal Cycle: 41 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 time slots (7:45 - 8:45 AM). Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. for 10 time slots.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.541
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 25.6
Optimal Cycle: 24 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 21 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 57 623 49 192 709 68 3 3 3 123 53 241
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 65 710 56 219 808 78 3 3 3 140 60 275
Added Vol: 0 84 0 1 105 0 0 0 0 0 0 1
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 65 794 56 220 913 78 3 3 3 140 60 276
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: 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 Volume: 65 794 56 220 913 78 3 3 3 140 60 276
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 65 794 56 220 913 78 3 3 3 140 60 276
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 65 794 56 220 913 78 3 3 3 140 60 276

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.93 0.83 0.93 0.93 0.83 0.47 0.91 0.91 0.77 0.77 0.83
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.50 0.50 0.70 0.30 1.00
Final Sat.: 1769 3538 1583 1769 3538 1583 896 861 861 1020 440 1583

Capacity Analysis Module:
Vol/Sat: 0.04 0.22 0.04 0.12 0.26 0.05 0.00 0.00 0.00 0.14 0.14 0.17
Crit Moves: ****
Green/Cycle: 0.08 0.41 0.41 0.23 0.56 0.56 0.32 0.32 0.32 0.32 0.32 0.32
Volume/Cap: 0.46 0.54 0.09 0.54 0.46 0.09 0.01 0.01 0.01 0.43 0.43 0.54
Uniform Del: 52.7 26.5 21.3 40.7 15.3 12.0 27.7 27.7 27.7 32.0 32.0 33.4
IncrementDel: 2.3 0.4 0.1 1.5 0.2 0.0 0.0 0.0 0.0 0.6 0.6 1.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 55.0 26.9 21.3 42.1 15.5 12.0 27.7 27.7 27.7 32.6 32.6 34.6
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: 55.0 26.9 21.3 42.1 15.5 12.0 27.7 27.7 27.7 32.6 32.6 34.6
LOS by Move: E C C D B B C C C C C C
HCM2kAvgQ: 3 12 1 8 10 1 0 0 0 6 6 9

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 100 Critical Vol./Cap. (X): 0.706
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 33.0
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:
Base Vol: 115 314 8 7 490 355 114 34 45 6 97 5
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 131 358 9 8 559 405 130 39 51 7 111 6
Added Vol: 0 138 0 0 37 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 131 496 9 8 596 405 130 39 51 7 111 6
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: 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 Volume: 131 496 9 8 596 405 130 39 51 7 111 6
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 131 496 9 8 596 405 130 39 51 7 111 6
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 131 496 9 8 596 405 130 39 51 7 111 6

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.94 0.94 0.94 0.89 0.89 0.89 0.94 0.94 0.94 0.99 0.99 0.99
Lanes: 0.41 1.56 0.03 0.02 1.18 0.80 1.42 0.25 0.33 0.05 0.90 0.05
Final Sat.: 735 2781 51 27 2005 1362 2526 445 589 105 1691 87

Capacity Analysis Module:
Vol/Sat: 0.18 0.18 0.18 0.30 0.30 0.30 0.05 0.09 0.09 0.07 0.07 0.07
Crit Moves: ****
Green/Cycle: 0.25 0.25 0.25 0.42 0.42 0.42 0.12 0.12 0.12 0.09 0.09 0.09
Volume/Cap: 0.71 0.71 0.71 0.71 0.71 0.71 0.42 0.71 0.71 0.71 0.71 0.71
Uniform Del: 34.0 34.0 34.0 23.8 23.8 23.8 40.5 42.1 42.1 44.0 44.0 44.0
IncrementDel: 2.6 2.6 2.6 1.6 1.6 1.6 0.5 7.2 7.2 12.4 12.4 12.4
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 36.5 36.5 36.5 25.5 25.5 25.5 41.0 49.3 49.3 56.4 56.4 56.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 36.5 36.5 36.5 25.5 25.5 25.5 41.0 49.3 49.3 56.4 56.4 56.4
LOS by Move: D D D C C C D D D E E E
HCM2kAvgQ: 11 11 11 14 14 14 3 6 6 5 5 5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec): 100 Critical Vol./Cap. (X): 0.596
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 1.5
Optimal Cycle: 90 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: Table with 12 columns representing different traffic movements and 12 rows of volume-related metrics like Base Vol, Growth Adj, etc.

Saturation Flow Module: Table with 12 columns and 5 rows showing saturation flow rates and adjustments.

Capacity Analysis Module: Table with 12 columns and 15 rows of capacity analysis metrics such as Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: Cumulative 2025 East Campus Only PM

Command: Long Term Project I PM
 Volume: Long Term Project I PM
 Geometry: Long Term Project I PM
 Impact Fee: Default Impact Fee
 Trip Generation: Long Term Project I PM
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Long Term Project I PM

Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Bayfront Exp. & Marsh Rd.	E	77.7 1.075	F	83.0 1.096	+ 5.266 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	19.2 0.929	D	46.5 1.105	+27.224 D/V
# 3 US 101 SB Ramps & Marsh Rd.	C	23.8 0.931	C	34.6 0.983	+10.805 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	C	24.3 0.781	C	24.2 0.896	-0.153 D/V
# 5 Bohannon/ Florence & Marsh Rd.	C	29.2 0.664	C	22.6 0.779	-6.564 D/V
# 6 Bay Rd. & Marsh Rd.	B	15.9 0.659	B	15.3 0.691	-0.631 D/V
# 7 Middlefield at Marsh (Town of	D	39.4 0.922	D	50.6 1.040	+11.151 D/V
# 8 Bayfront Exp. & Willow Rd.	E	67.9 1.045	F	140.2 1.282	+72.292 D/V
# 9 Hamilton Ave. & Willow Rd.	C	23.7 0.693	C	25.7 0.772	+ 2.036 D/V
# 10 Ivy Dr. & Willow Rd.	B	12.8 0.619	B	14.9 0.741	+ 2.098 D/V
# 11 O'Brien Dr. & Willow Rd.	B	10.4 0.622	A	9.8 0.667	-0.569 D/V
# 12 Newbridge St. & Willow Rd.	D	36.8 0.838	E	57.1 1.071	+20.276 D/V
# 13 Bay Rd. & Willow Rd.	C	22.2 0.833	C	23.9 0.877	+ 1.715 D/V
# 14 Durham St. & Willow Rd.	E	56.1 0.728	C	20.2 0.865	-35.939 D/V
# 15 Coleman Ave. & Willow Rd.	B	14.3 0.833	B	17.1 0.906	+ 2.709 D/V
# 16 Gilbert Ave. & Willow Rd.	B	14.1 0.745	B	14.3 0.844	+ 0.214 D/V
# 17 Middlefield Rd. & Willow Rd.	F	153.6 1.404	F	215.0 1.539	+61.397 D/V
# 18 Bayfront Exp. & University Ave	F	211.8 1.460	F	244.3 1.560	+32.474 D/V
# 19 O'Brien Dr. & University Ave.	B	14.3 0.760	B	14.7 0.776	+ 0.374 D/V
# 20 University & Kavanaugh	B	17.7 0.732	B	17.5 0.741	-0.186 D/V
# 21 University & Bay	D	39.5 0.918	D	39.7 0.927	+ 0.171 D/V
# 22 University & Runnymede	C	24.8 0.770	C	24.7 0.778	-0.060 D/V
# 23 University & Bell	A	8.2 0.605	A	8.2 0.613	-0.087 D/V
# 24 University & Donohoe	D	43.4 0.962	D	45.6 0.973	+ 2.118 D/V
# 25 NB 101 & Donohoe St	C	22.0 0.531	C	22.2 0.535	+ 0.126 D/V

Intersection		Base		Future		Change in	
		Del/ LOS	V/ Veh	Del/ LOS	V/ Veh		
# 26 University & SB US 101	C	33.4	0.580	34.3	0.600	+ 0.849	D/V
# 27 University Ave. & Woodland	E	57.6	0.980	60.1	0.999	+ 2.490	D/V
# 28 Middlefield Rd. & University A	C	33.8	0.613	35.9	0.683	+ 2.047	D/V
# 29 Bayfront Exp. & Chrysler Dr.	C	20.8	0.777	101.9	1.187	+81.059	D/V
# 30 Bayfront Exp. & Chilco St.	B	15.0	0.666	19.3	0.776	+ 4.283	D/V
# 31 Middlefield Rd. & Ravenswood A	C	30.5	0.818	32.7	0.877	+ 2.193	D/V
# 32 Middlefield Rd. & Ringwood Ave	C	29.6	0.689	30.0	0.720	+ 0.481	D/V
# 33 Middlefield Rd and Lytton Ave	D	41.7	0.803	45.2	0.862	+ 3.480	D/V
# 34 Bayfront Expy. and Facebook We	A	1.5	0.576	1.6	0.625	+ 0.140	D/V

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 140 Critical Vol./Cap. (X): 1.096
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 83.0
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Include			Ovl			Ovl			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	3	0	0	1	0	1	0	1	0	0	2	0

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Volume Module: >> Count Date: 22 Oct 2009 << 4:45 - 5:45 PM

Base Vol:	1184	49	7	0	346	186	139	40	1952	31	73	11
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Initial Bse:	1350	56	8	0	394	212	158	46	2225	35	83	13
Added Vol:	982	0	0	0	0	0	0	0	55	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2332	56	8	0	394	212	158	46	2280	35	83	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	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 Volume:	2332	56	8	0	394	212	158	46	2280	35	83	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2332	56	8	0	394	212	158	46	2280	35	83	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	2332	56	8	0	394	212	158	46	2280	35	83	13

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Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.96	0.96	0.95	0.93	0.83	0.94	0.94	0.73	0.95	0.95	0.95
Lanes:	3.00	0.87	0.13	0.00	2.00	1.00	0.78	0.22	2.00	0.27	0.63	0.10
Final Sat.:	5147	1598	228	0	3538	1583	1392	401	2786	489	1151	174

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Capacity Analysis Module:

Vol/Sat:	0.45	0.03	0.03	0.00	0.11	0.13	0.11	0.11	0.82	0.07	0.07	0.07
Crit Moves:	****			****			****		****		****	
Green/Cycle:	0.41	0.41	0.41	0.00	0.10	0.44	0.33	0.33	0.75	0.07	0.07	0.07
Volume/Cap:	1.10	0.08	0.08	0.00	1.10	0.31	0.34	0.34	1.10	1.10	1.10	1.10
Uniform Del:	41.1	25.0	25.0	0.0	62.9	25.8	35.1	35.1	17.7	65.4	65.4	65.4
IncrementDel:	51.5	0.0	0.0	0.0	75.9	0.3	0.3	0.3	51.6	110.5	111	110.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	92.5	25.0	25.0	0.0	139	26.0	35.4	35.4	69.4	175.9	176	175.9
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:	92.5	25.0	25.0	0.0	139	26.0	35.4	35.4	69.4	175.9	176	175.9
LOS by Move:	F	C	C	A	F	C	D	D	E	F	F	F
HCM2kAvgQ:	46	2	2	0	14	6	6	6	72	10	10	10

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap. (X): 1.105
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 46.5
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Permitted), Rights (Include, Ignore), and Lanes.

Table with 4 columns: Volume Module (>> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM), Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table with 4 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with 4 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 US 101 SB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap. (X): 0.983
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 34.6
Optimal Cycle: 128 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Permitted), Rights (Include, Ignore), and Lanes.

Table with 4 columns: Volume Module (>> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM), Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table with 4 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with 4 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Scott Dr/Rolison at Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.896
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 24.2
Optimal Cycle: 78 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include, Include, Include), Min. Green (4, 4, 4, 4), Lanes (0, 1, 0, 0, 2, 0, 1, 0, 0, 1, 1, 0, 2, 1, 0, 2, 0, 1, 1, 0)

Volume Module: >> Count Date: 4 Nov 2009 << 4:45 - 5:45 PM
Base Vol: 28 15 267 254 9 2 42 1314 17 78 1109 214
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 32 17 304 290 10 2 48 1498 19 89 1264 244
Added Vol: 0 0 0 0 0 0 0 0 94 0 0 388 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 32 17 304 290 10 2 48 1592 19 89 1652 244
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: 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 Volume: 32 17 304 290 10 2 48 1592 19 89 1652 244
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 32 17 304 290 10 2 48 1592 19 89 1652 244
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: 32 17 304 290 10 2 48 1592 19 89 1652 244

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 0.73 0.93 0.93 0.83 0.93 0.89 0.89 0.90 0.91 0.91
Lanes: 0.65 0.35 2.00 0.97 0.03 1.00 1.00 2.96 0.04 2.00 1.74 0.26
Final Sat.: 1174 629 2786 1716 61 1583 1769 5012 61 3432 3024 447

Capacity Analysis Module:
Vol/Sat: 0.03 0.03 0.11 0.17 0.17 0.00 0.03 0.32 0.32 0.03 0.55 0.55
Crit Moves: ****
Green/Cycle: 0.12 0.12 0.12 0.18 0.18 0.18 0.05 0.56 0.56 0.09 0.60 0.60
Volume/Cap: 0.23 0.23 0.92 0.92 0.92 0.01 0.54 0.57 0.57 0.29 0.92 0.92
Uniform Del: 31.9 31.9 34.8 32.0 32.0 26.7 37.1 11.4 11.4 34.2 14.4 14.4
IncrementDel: 0.5 0.5 29.0 29.3 29.3 0.0 6.7 0.3 0.3 0.5 6.9 6.9
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 32.4 32.4 63.8 61.3 61.3 26.7 43.8 11.7 11.7 34.7 21.3 21.3
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: 32.4 32.4 63.8 61.3 61.3 26.7 43.8 11.7 11.7 34.7 21.3 21.3
LOS by Move: C C E E E C D B B C C C
HCM2kAvgQ: 1 1 8 11 11 0 2 10 10 1 27 27

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Bohannon/ Florence & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.779
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 22.6
Optimal Cycle: 45 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include, Include, Include), Min. Green (4, 4, 4, 4), Lanes (1, 0, 0, 1, 0, 1, 1, 0, 0, 1, 1, 0, 1, 0, 2, 0, 1)

Volume Module: >> Count Date: 7 Oct 2009 << 4:30 - 5:30 pm
Base Vol: 95 32 58 428 30 128 239 885 55 26 833 316
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 108 36 66 488 34 146 272 1009 63 30 950 360
Added Vol: 0 0 0 0 0 0 0 0 94 0 0 388 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 108 36 66 488 34 146 272 1103 63 30 1338 360
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: 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 Volume: 108 36 66 488 34 146 272 1103 63 30 1338 360
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 108 36 66 488 34 146 272 1103 63 30 1338 360
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: 108 36 66 488 34 146 272 1103 63 30 1338 360

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.88 0.88 0.94 0.94 0.83 0.93 0.92 0.92 0.93 0.93 0.83
Lanes: 1.00 0.36 0.64 1.87 0.13 1.00 1.00 1.89 0.11 1.00 2.00 1.00
Final Sat.: 1769 598 1084 3323 233 1583 1769 3321 189 1769 3538 1583

Capacity Analysis Module:
Vol/Sat: 0.06 0.06 0.06 0.15 0.15 0.09 0.15 0.33 0.33 0.02 0.38 0.23
Crit Moves: ****
Green/Cycle: 0.08 0.08 0.08 0.19 0.19 0.19 0.20 0.59 0.59 0.09 0.49 0.49
Volume/Cap: 0.78 0.78 0.78 0.78 0.78 0.49 0.78 0.56 0.56 0.19 0.78 0.47
Uniform Del: 36.2 36.2 36.2 30.9 30.9 29.0 30.4 9.9 9.9 33.7 17.0 13.7
IncrementDel: 24.0 24.6 24.6 5.8 5.8 1.3 10.7 0.3 0.3 0.6 2.4 0.5
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 60.1 60.8 60.8 36.7 36.7 30.3 41.1 10.2 10.2 34.3 19.4 14.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 60.1 60.8 60.8 36.7 36.7 30.3 41.1 10.2 10.2 34.3 19.4 14.2
LOS by Move: E E E D D C D B B C B B
HCM2kAvgQ: 5 4 4 8 8 4 8 10 10 1 16 6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Bay Rd. & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.691
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.3
Optimal Cycle: 34 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Permitted, Protected), Rights (Include, Ovl), Min. Green, Lanes.

Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 57 8 180 55 31 3 5 819 90 200 891 47
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 65 9 205 63 35 3 6 934 103 228 1016 54
Added Vol: 2 0 0 0 0 0 0 0 94 2 0 388 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 67 9 205 63 35 3 6 1028 105 228 1404 54
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: 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 Volume: 67 9 205 63 35 3 6 1028 105 228 1404 54
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 67 9 205 63 35 3 6 1028 105 228 1404 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
Final Volume: 67 9 205 63 35 3 6 1028 105 228 1404 54

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.81 0.81 0.81 0.65 0.65 0.65 0.87 0.87 0.87 0.93 0.93 0.93
Lanes: 0.24 0.03 0.73 0.62 0.35 0.03 0.01 1.81 0.18 1.00 1.93 0.07
Final Sat.: 365 50 1119 766 432 42 17 2986 304 1769 3387 129

Capacity Analysis Module:
Vol/Sat: 0.18 0.18 0.18 0.08 0.08 0.08 0.34 0.34 0.34 0.13 0.41 0.41
Crit Moves: ****
Green/Cycle: 0.26 0.26 0.26 0.26 0.26 0.26 0.50 0.50 0.50 0.19 0.69 0.69
Volume/Cap: 0.69 0.69 0.69 0.31 0.31 0.31 0.69 0.69 0.69 0.69 0.60 0.60
Uniform Del: 26.5 26.5 26.5 23.6 23.6 23.6 15.3 15.3 15.3 30.4 6.7 6.7
IncrementDel: 5.2 5.2 5.2 0.5 0.5 0.5 1.3 1.3 1.3 6.0 0.4 0.4
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 31.7 31.7 31.7 24.1 24.1 24.1 16.6 16.6 16.6 36.4 7.2 7.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 31.7 31.7 31.7 24.1 24.1 24.1 16.6 16.6 16.6 36.4 7.2 7.2
LOS by Move: C C C C C C B B B D A A
HCM2kAvgQ: 8 8 8 2 2 2 12 12 12 7 11 11

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Middlefield at Marsh (Town of Atherton)
Cycle (sec): 110 Critical Vol./Cap. (X): 1.040
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 50.6
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Protected), Rights (Include, Ovl), Min. Green, Lanes.

Volume Module: >> Count Date: 18 Nov 2009 << 5:00 - 6:00 p.m.
Base Vol: 0 426 548 408 269 0 0 0 0 515 0 447
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 0 486 625 465 307 0 0 0 0 587 0 510
Added Vol: 0 58 71 25 11 0 0 0 0 113 0 277
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 544 696 490 318 0 0 0 0 700 0 787
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: 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 Volume: 0 544 696 490 318 0 0 0 0 700 0 787
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 544 696 490 318 0 0 0 0 700 0 787
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 544 696 490 318 0 0 0 0 700 0 787

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 0.85 0.95 1.00 1.00 1.00 1.00 1.00 0.95 1.00 0.85
Lanes: 0.00 1.00 1.00 1.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Final Sat.: 0 1900 1615 1805 1900 0 0 0 0 1805 0 1615

Capacity Analysis Module:
Vol/Sat: 0.00 0.29 0.43 0.27 0.17 0.00 0.00 0.00 0.00 0.39 0.00 0.49
Crit Moves: ****
Green/Cycle: 0.00 0.28 0.65 0.26 0.54 0.00 0.00 0.00 0.00 0.37 0.00 0.63
Volume/Cap: 0.00 1.04 0.66 1.04 0.31 0.00 0.00 0.00 0.00 1.04 0.00 0.77
Uniform Del: 0.0 39.9 12.0 40.6 14.2 0.0 0.0 0.0 0.0 34.5 0.0 14.4
IncrementDel: 0.0 50.2 1.6 52.3 0.2 0.0 0.0 0.0 0.0 45.5 0.0 3.6
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Delay/Veh: 0.0 90.0 13.6 92.9 14.4 0.0 0.0 0.0 0.0 80.0 0.0 17.9
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 90.0 13.6 92.9 14.4 0.0 0.0 0.0 0.0 80.0 0.0 17.9
LOS by Move: A F B F B A A A A F A B
HCM2kAvgQ: 0 26 15 24 6 0 0 0 0 33 0 20

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.282
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 140.2
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Split Phase), and Lanes.

Table with 4 columns: Volume Module (>> Count Date), Base Vol., Growth Adj., Initial Bse, Added Vol., PasserByVol., Initial Fut., User Adj., PHF Adj., PHF Volume, Reduct Vol., Reduced Vol., PCE Adj., MLF Adj., Final Volume.

Table with 4 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with 4 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.772
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 25.7
Optimal Cycle: 72 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Protected), and Lanes.

Table with 4 columns: Volume Module (>> Count Date), Base Vol., Growth Adj., Initial Bse, Added Vol., PasserByVol., Initial Fut., User Adj., PHF Adj., PHF Volume, Reduct Vol., Reduced Vol., PCE Adj., MLF Adj., Final Volume.

Table with 4 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with 4 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.741
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.9
Optimal Cycle: 65 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 5 0 5 5 5 0 0 5 5
Lanes: 0 0 0 0 0 0 0 1 0 0 1 0 2 0 0 0 0 1 1 0

Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 0 0 0 10 0 122 98 1457 0 0 800 22
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 0 0 0 11 0 139 112 1661 0 0 912 25
Added Vol: 0 0 0 14 0 10 10 131 0 0 699 104
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 25 0 149 122 1792 0 0 1611 129
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: 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 Volume: 0 0 0 25 0 149 122 1792 0 0 1611 129
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 25 0 149 122 1792 0 0 1611 129
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 0 0 25 0 149 122 1792 0 0 1611 129

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.86 1.00 0.86 0.93 0.93 1.00 1.00 0.92 0.92
Lanes: 0.00 0.00 0.00 0.15 0.00 0.85 1.00 2.00 0.00 0.00 1.85 0.15
Final Sat.: 0 0 0 238 0 1398 1769 3538 0 0 3239 260

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.11 0.00 0.11 0.07 0.51 0.00 0.00 0.50 0.50
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.14 0.00 0.14 0.09 0.76 0.00 0.00 0.67 0.67
Volume/Cap: 0.00 0.00 0.00 0.74 0.00 0.74 0.74 0.66 0.00 0.00 0.74 0.74
Uniform Del: 0.0 0.0 0.0 49.2 0.0 49.2 53.0 6.8 0.0 0.0 12.9 12.9
IncrementDel: 0.0 0.0 0.0 11.8 0.0 11.8 16.4 0.6 0.0 0.0 1.3 1.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Delay/Veh: 0.0 0.0 0.0 61.0 0.0 61.0 69.4 7.4 0.0 0.0 14.2 14.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 61.0 0.0 61.0 69.4 7.4 0.0 0.0 14.2 14.2
LOS by Move: A A A E A E E A A A B B
HCM2kAvgQ: 0 0 0 8 0 8 6 17 0 0 23 23

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.667
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 9.8
Optimal Cycle: 54 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 0 5 0 0 0 0 5 5 5 5 0
Lanes: 1 0 1 0 0 0 0 0 0 0 0 2 0 1 1 0 2 0 0

Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 120 0 35 0 0 0 0 1413 204 73 888 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 137 0 40 0 0 0 0 1611 233 83 1012 0
Added Vol: 4 0 0 0 0 0 0 141 11 0 709 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 141 0 40 0 0 0 0 1752 244 83 1721 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: 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 Volume: 141 0 40 0 0 0 0 1752 244 83 1721 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 141 0 40 0 0 0 0 1752 244 83 1721 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: 141 0 40 0 0 0 0 1752 244 83 1721 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.91 1.00 0.91 1.00 1.00 1.00 1.00 0.93 0.83 0.93 0.93 1.00
Lanes: 1.64 0.00 0.36 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 2841 0 627 0 0 0 0 3538 1583 1769 3538 0

Capacity Analysis Module:
Vol/Sat: 0.05 0.00 0.06 0.00 0.00 0.00 0.00 0.50 0.15 0.05 0.49 0.00
Crit Moves: ****
Green/Cycle: 0.10 0.00 0.10 0.00 0.00 0.00 0.00 0.74 0.74 0.07 0.81 0.00
Volume/Cap: 0.52 0.00 0.67 0.00 0.00 0.00 0.00 0.67 0.21 0.67 0.60 0.00
Uniform Del: 51.7 0.0 52.4 0.0 0.0 0.0 0.0 7.9 4.7 54.4 4.1 0.0
IncrementDel: 1.4 0.0 6.2 0.0 0.0 0.0 0.0 0.7 0.1 13.0 0.4 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00 0.00
Delay/Veh: 53.1 0.0 58.7 0.0 0.0 0.0 0.0 8.6 4.8 67.3 4.4 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 53.1 0.0 58.7 0.0 0.0 0.0 0.0 8.6 4.8 67.3 4.4 0.0
LOS by Move: D A E A A A A A E A A
HCM2kAvgQ: 4 0 5 0 0 0 0 18 3 4 12 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 1.071
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 57.1
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Ovl, Include), Min. Green (5, 5, 5, 5), Lanes (2, 0, 1, 0, 1, 1, 0, 2, 1, 0, 1, 0, 1, 1, 0)

Volume Module: >> Count Date: 7 Oct 2009 << 4:45 - 5:45 PM
Base Vol: 248 170 55 38 166 219 323 1436 339 102 975 34
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 283 194 63 43 189 250 368 1637 386 116 1112 39
Added Vol: 0 0 0 0 0 0 9 7 152 0 0 713 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 283 194 63 43 189 259 375 1789 386 116 1825 39
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: 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 Volume: 283 194 63 43 189 259 375 1789 386 116 1825 39
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 283 194 63 43 189 259 375 1789 386 116 1825 39
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: 283 194 63 43 189 259 375 1789 386 116 1825 39

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.98 0.83 0.93 0.98 0.83 0.93 0.87 0.87 0.93 0.93 0.93
Lanes: 2.00 1.00 1.00 1.00 1.00 1.00 1.00 2.47 0.53 1.00 1.96 0.04
Final Sat.: 3432 1862 1583 1769 1862 1583 1769 4067 879 1769 3454 73

Capacity Analysis Module:
Vol/Sat: 0.08 0.10 0.04 0.02 0.10 0.16 0.21 0.44 0.44 0.07 0.53 0.53
Crit Moves: ****
Green/Cycle: 0.10 0.10 0.19 0.09 0.09 0.29 0.20 0.60 0.60 0.09 0.49 0.49
Volume/Cap: 0.85 1.07 0.21 0.26 1.07 0.56 1.07 0.73 0.73 0.73 1.07 1.07
Uniform Del: 53.3 54.2 41.3 50.4 54.3 35.9 48.1 17.0 17.0 53.2 30.4 30.4
IncrementDel: 18.0 87.0 0.4 0.8 87.9 1.5 68.3 1.0 1.0 15.9 43.4 43.4
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 71.3 141 41.6 51.2 142 37.4 116.4 18.0 18.0 69.1 73.9 73.9
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: 71.3 141 41.6 51.2 142 37.4 116.4 18.0 18.0 69.1 73.9 73.9
LOS by Move: E F D D F D F B B E E E
HCM2kAvgQ: 8 12 2 2 12 8 21 21 21 6 49 49

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.877
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 23.9
Optimal Cycle: 93 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include), Min. Green (0, 0, 0, 5, 5, 5, 5, 0, 0, 5, 5), Lanes (0, 0, 0, 0, 0, 1, 0, 0, 0, 1, 1, 0, 2, 0, 0, 0, 0, 2, 0, 1)

Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 0 0 0 416 0 54 40 1436 0 0 1061 255
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 0 0 0 474 0 62 46 1637 0 0 1210 291
Added Vol: 0 0 0 4 0 0 0 130 0 0 219 7
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 478 0 62 46 1767 0 0 1429 298
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: 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 Volume: 0 0 0 478 0 62 46 1767 0 0 1429 298
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 478 0 62 46 1767 0 0 1429 298
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 0 0 478 0 62 46 1767 0 0 1429 298

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.93 1.00 0.83 0.93 0.93 1.00 1.00 0.93 0.83
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 0 0 0 1769 0 1583 1769 3538 0 0 3538 1583

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.27 0.00 0.04 0.03 0.50 0.00 0.00 0.40 0.19
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.31 0.00 0.31 0.07 0.57 0.00 0.00 0.50 0.50
Volume/Cap: 0.00 0.00 0.00 0.88 0.00 0.13 0.37 0.88 0.00 0.00 0.81 0.38
Uniform Del: 0.0 0.0 0.0 29.5 0.0 22.4 40.0 16.7 0.0 0.0 18.8 13.8
IncrementDel: 0.0 0.0 0.0 14.9 0.0 0.1 1.9 4.7 0.0 0.0 2.8 0.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Delay/Veh: 0.0 0.0 0.0 44.4 0.0 22.5 42.0 21.4 0.0 0.0 21.7 14.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 44.4 0.0 22.5 42.0 21.4 0.0 0.0 21.7 14.1
LOS by Move: A A A D A C D C A A C B
HCM2kAvgQ: 0 0 0 16 0 1 2 25 0 0 19 5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.865
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 20.2
Optimal Cycle: 82 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Protected), Rights (Include, Exclude), Min. Green, Lanes.

Table with columns: Volume Module, Count, Date (1 Oct 2009), Time (4:00 - 5:00 PM), Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.906
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 17.1
Optimal Cycle: 103 Level Of Service: B

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Protected), Rights (Include, Exclude), Min. Green, Lanes.

Table with columns: Volume Module, Count, Date (30 Sep 2009), Time (5:00 - 6:00 PM), Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.844
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 14.3
Optimal Cycle: 74 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM. Table with 12 columns for volume counts and 12 columns for growth/initial/added/passers/future values.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.539
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 215.0
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 4:45 - 5:45 PM. Table with 12 columns for volume counts and 12 columns for growth/initial/added/passers/future values.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 150 Critical Vol./Cap. (X): 1.560
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 244.3
Optimal Cycle: 180 Level Of Service: F

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume. Rows for Oct 2009.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. Rows for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ. Rows for Capacity Analysis Module.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 0.776
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.7
Optimal Cycle: 66 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume. Rows for Oct 2009.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. Rows for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ. Rows for Capacity Analysis Module.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap. (X): 0.741
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 17.5
Optimal Cycle: 85 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Include), and Lanes (0 0 1 0 0).

Volume Module: Table with 12 columns (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume) and 12 rows.

Saturation Flow Module: Table with 12 columns (Sat/Lane, Adjustment, Lanes, Final Sat) and 4 rows.

Capacity Analysis Module: Table with 12 columns (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ) and 13 rows.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap. (X): 0.927
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 39.7
Optimal Cycle: 122 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Include), and Lanes (1 1 0 0 1).

Volume Module: Table with 12 columns (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume) and 12 rows.

Saturation Flow Module: Table with 12 columns (Sat/Lane, Adjustment, Lanes, Final Sat) and 4 rows.

Capacity Analysis Module: Table with 12 columns (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ) and 13 rows.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap. (X): 0.778
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 24.7
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Protected, Permitted), Rights (Include, Include, Include).

Volume Module:
Base Vol: 78 109 59 17 76 27 29 1264 78 44 793 17
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 89 124 67 19 87 31 33 1441 89 50 904 19
Added Vol: 0 0 0 0 0 0 0 0 27 0 0 103 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 89 124 67 19 87 31 33 1468 89 50 1007 19
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 89 124 67 19 87 31 33 1468 89 50 1007 19
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 89 124 67 19 87 31 33 1468 89 50 1007 19
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 89 124 67 19 87 31 33 1468 89 50 1007 19

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 0.95 0.96 0.96 0.96 0.95 0.94 0.94 0.95 0.95 0.95
Lanes: 0.32 0.44 0.24 0.14 0.63 0.23 1.00 1.89 0.11 1.00 1.96 0.04
Final Sat.: 574 802 434 259 1159 412 1805 3373 204 1805 3531 68

Capacity Analysis Module:
Vol/Sat: 0.15 0.15 0.15 0.07 0.07 0.07 0.02 0.44 0.44 0.03 0.29 0.29
Crit Moves: ****
Green/Cycle: 0.20 0.20 0.20 0.09 0.09 0.09 0.09 0.55 0.55 0.05 0.51 0.51
Volume/Cap: 0.79 0.79 0.79 0.79 0.79 0.79 0.20 0.79 0.79 0.56 0.56 0.56
Uniform Del: 38.3 38.3 38.3 44.3 44.3 44.3 42.2 17.9 17.9 46.4 16.8 16.8
IncrementDel: 11.5 11.5 11.5 21.5 21.5 21.5 0.6 2.3 2.3 7.4 0.4 0.4
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 49.8 49.8 49.8 65.8 65.8 65.8 42.9 20.2 20.2 53.9 17.2 17.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 49.8 49.8 49.8 65.8 65.8 65.8 42.9 20.2 20.2 53.9 17.2 17.2
LOS by Move: D D D E E E D C C D B B
HCM2kAvgQ: 10 10 10 6 6 6 1 22 22 2 12 12

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #23 University & Bell

Cycle (sec): 90 Critical Vol./Cap. (X): 0.613
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 8.2
Optimal Cycle: 86 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Permitted, Permitted), Rights (Include, Include, Include).

Volume Module:
Base Vol: 60 83 38 11 68 22 42 1322 87 37 787 22
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 68 95 43 13 78 25 48 1507 99 42 897 25
Added Vol: 0 0 0 0 0 0 0 0 27 0 0 103 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 68 95 43 13 78 25 48 1534 99 42 1000 25
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 68 95 43 13 78 25 48 1534 99 42 1000 25
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 68 95 43 13 78 25 48 1534 99 42 1000 25
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 68 95 43 13 78 25 48 1534 99 42 1000 25

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.84 0.84 0.84 0.94 0.94 0.94 0.25 0.94 0.94 0.11 0.95 0.95
Lanes: 0.33 0.46 0.21 0.11 0.67 0.22 1.00 1.88 0.12 1.00 1.95 0.05
Final Sat.: 528 730 334 195 1205 390 469 3360 217 205 3508 88

Capacity Analysis Module:
Vol/Sat: 0.13 0.13 0.13 0.06 0.06 0.06 0.10 0.46 0.46 0.21 0.29 0.29
Crit Moves: ****
Green/Cycle: 0.21 0.21 0.21 0.21 0.21 0.21 0.74 0.74 0.74 0.74 0.74 0.74
Volume/Cap: 0.61 0.61 0.61 0.30 0.30 0.30 0.14 0.61 0.61 0.28 0.38 0.38
Uniform Del: 32.2 32.2 32.2 29.9 29.9 29.9 3.3 5.4 5.4 3.7 4.1 4.1
IncrementDel: 3.3 3.3 3.3 0.5 0.5 0.5 0.2 0.4 0.4 1.0 0.1 0.1
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 35.5 35.5 35.5 30.4 30.4 30.4 3.5 5.8 5.8 4.7 4.2 4.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 35.5 35.5 35.5 30.4 30.4 30.4 3.5 5.8 5.8 4.7 4.2 4.2
LOS by Move: D D D C C C A A A A A A
HCM2kAvgQ: 6 6 6 3 3 3 0 12 12 1 5 5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap. (X): 0.973
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 45.6
Optimal Cycle: 160 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Include), Rights (Min. Green, Lanes).

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume).

Table with 12 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 12 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 90 Critical Vol./Cap. (X): 0.535
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 22.2
Optimal Cycle: 82 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Include), Rights (Min. Green, Lanes).

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume).

Table with 12 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 12 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #26 University & SB US 101

Cycle (sec): 90 Critical Vol./Cap. (X): 0.600
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 34.3
Optimal Cycle: 180 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights. Includes lane counts and control types like Permitted, Protected, Ovl.

Volume Module:

Table with 12 columns for traffic flows and 12 rows for various volume metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 12 columns for traffic flows and 4 rows for saturation flow metrics like Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:

Table with 12 columns for traffic flows and 12 rows for capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #27 University Ave. & Woodland

Cycle (sec): 110 Critical Vol./Cap. (X): 0.999
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 60.1
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights. Includes lane counts and control types like Protected, Include.

Volume Module:

Table with 12 columns for traffic flows and 12 rows for various volume metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 12 columns for traffic flows and 4 rows for saturation flow metrics like Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:

Table with 12 columns for traffic flows and 12 rows for capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.683
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 35.9
Optimal Cycle: 85 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module:
Base Vol: 30 377 86 82 384 76 59 328 23 71 442 88
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 34 430 98 93 438 87 67 374 26 81 504 100
Added Vol: 0 39 5 16 97 23 3 40 1 37 20 12
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 34 469 103 109 535 110 70 414 27 118 524 112
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: 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 Volume: 34 469 103 109 535 110 70 414 27 118 524 112
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 34 469 103 109 535 110 70 414 27 118 524 112
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 34 469 103 109 535 110 70 414 27 118 524 112

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.92 0.92 0.92 0.92 0.92 0.95 0.94 0.94 0.95 0.92 0.92
Lanes: 0.11 1.55 0.34 0.29 1.42 0.29 1.00 1.88 0.12 1.00 1.65 0.35
Final Sat.: 198 2714 597 509 2487 510 1805 3357 221 1805 2892 620

Capacity Analysis Module:
Vol/Sat: 0.17 0.17 0.17 0.22 0.22 0.22 0.04 0.12 0.12 0.07 0.18 0.18
Crit Moves: ****
Green/Cycle: 0.25 0.25 0.25 0.31 0.31 0.31 0.06 0.21 0.21 0.11 0.27 0.27
Volume/Cap: 0.68 0.68 0.68 0.68 0.68 0.68 0.68 0.59 0.59 0.59 0.68 0.68
Uniform Del: 33.7 33.7 33.7 29.9 29.9 29.9 46.3 35.5 35.5 42.2 33.0 33.0
IncrementDel: 2.2 2.2 2.2 1.8 1.8 1.8 17.2 1.2 1.2 4.4 2.1 2.1
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 35.9 35.9 35.9 31.7 31.7 31.7 63.5 36.7 36.7 46.6 35.1 35.1
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: 35.9 35.9 35.9 31.7 31.7 31.7 63.5 36.7 36.7 46.6 35.1 35.1
LOS by Move: D D D C C C E D D D D D
HCM2kAvgQ: 10 10 10 12 12 12 3 7 7 4 10 10

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.187
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 101.9
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module:5:00 - 6:00 AM
Base Vol: 10 932 0 0 2235 16 334 0 76 0 0 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 11 1062 0 0 2548 18 381 0 87 0 0 0
Added Vol: 38 364 0 0 55 0 618 0 86 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 49 1426 0 0 2603 18 999 0 173 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: 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 Volume: 49 1426 0 0 2603 18 999 0 173 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 49 1426 0 0 2603 18 999 0 173 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
Final Volume: 49 1426 0 0 2603 18 999 0 173 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.89 1.00 1.00 0.89 0.83 0.93 1.00 0.83 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.: 1769 5083 0 0 5083 1583 1769 0 1583 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.03 0.28 0.00 0.00 0.51 0.01 0.56 0.00 0.11 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.04 0.46 0.00 0.00 0.42 0.42 0.47 0.00 0.47 0.00 0.00 0.00
Volume/Cap: 0.73 0.61 0.00 0.00 1.21 0.03 1.21 0.00 0.23 0.00 0.00 0.00
Uniform Del: 61.8 26.1 0.0 0.0 37.4 21.8 34.6 0.0 20.7 0.0 0.0 0.0
IncrementDel: 32.1 0.5 0.0 0.0 97.6 0.0 104.3 0.0 0.2 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00
Delay/Veh: 93.9 26.5 0.0 0.0 135 21.8 138.9 0.0 20.8 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: 93.9 26.5 0.0 0.0 135 21.8 138.9 0.0 20.8 0.0 0.0 0.0
LOS by Move: F C A A F C F A C A A A
HCM2kAvgQ: 3 16 0 0 60 0 62 0 4 0 0 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.776
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 19.3
Optimal Cycle: 67 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ for Capacity Analysis Module.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.877
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 32.7
Optimal Cycle: 76 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ for Capacity Analysis Module.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.720
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 30.0
Optimal Cycle: 38 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Protected, Permitted), Rights (Include, Include), Min. Green (4, 4, 4, 4), Lanes (1, 0, 2, 0, 1).

Volume Module: >> Count Date: 21 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 49 761 127 356 628 36 75 76 62 73 8 266
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 56 868 145 406 716 41 85 87 71 83 9 303
Added Vol: 0 89 0 2 86 0 0 0 0 0 0 0 5
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 56 957 145 408 802 41 85 87 71 83 9 308
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: 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 Volume: 56 957 145 408 802 41 85 87 71 83 9 308
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 56 957 145 408 802 41 85 87 71 83 9 308
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 56 957 145 408 802 41 86 87 71 83 9 308

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.93 0.83 0.93 0.93 0.83 0.61 0.91 0.91 0.60 0.60 0.83
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.55 0.45 0.90 0.10 1.00
Final Sat.: 1769 3538 1583 1769 3538 1583 1160 957 781 1022 112 1583

Capacity Analysis Module:
Vol/Sat: 0.03 0.27 0.09 0.23 0.23 0.03 0.07 0.09 0.09 0.08 0.08 0.19
Crit Moves: ****
Green/Cycle: 0.09 0.38 0.38 0.32 0.61 0.61 0.27 0.27 0.27 0.27 0.27 0.27
Volume/Cap: 0.35 0.72 0.24 0.72 0.37 0.04 0.27 0.33 0.33 0.30 0.30 0.72
Uniform Del: 51.4 32.1 25.7 36.0 12.0 9.5 34.5 35.1 35.1 34.8 34.8 39.6
IncrementDel: 1.4 1.9 0.2 4.5 0.1 0.0 0.5 0.4 0.4 0.6 0.6 5.9
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 52.8 34.0 26.0 40.5 12.1 9.5 34.9 35.5 35.5 35.3 35.3 45.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 52.8 34.0 26.0 40.5 12.1 9.5 34.9 35.5 35.5 35.3 35.3 45.5
LOS by Move: D C C D B A C D D D D
HCM2kAvgQ: 2 17 4 14 8 1 3 5 5 3 3 12

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 110 Critical Vol./Cap. (X): 0.862
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 45.2
Optimal Cycle: 95 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Split Phase, Split Phase, Split Phase), Rights (Include, Include, Include), Min. Green (5, 5, 5, 5), Lanes (0, 1, 0, 1, 0).

Volume Module:
Base Vol: 89 457 24 24 508 163 419 135 78 7 55 12
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 101 521 27 27 579 186 478 154 89 8 63 14
Added Vol: 0 54 0 0 137 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 101 575 27 27 716 186 478 154 89 8 63 14
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: 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 Volume: 101 575 27 27 716 186 478 154 89 8 63 14
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 101 575 27 27 716 186 478 154 89 8 63 14
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 101 575 27 27 716 186 478 154 89 8 63 14

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.94 0.94 0.94 0.92 0.92 0.92 0.95 0.95 0.95 0.97 0.97 0.97
Lanes: 0.29 1.63 0.08 0.06 1.54 0.40 1.50 0.32 0.18 0.09 0.75 0.16
Final Sat.: 514 2911 139 103 2696 699 2702 577 333 175 1374 300

Capacity Analysis Module:
Vol/Sat: 0.20 0.20 0.20 0.27 0.27 0.27 0.18 0.27 0.27 0.05 0.05 0.05
Crit Moves: ****
Green/Cycle: 0.23 0.23 0.23 0.31 0.31 0.31 0.31 0.31 0.31 0.05 0.05 0.05
Volume/Cap: 0.86 0.86 0.86 0.86 0.86 0.86 0.57 0.86 0.86 0.86 0.86 0.86
Uniform Del: 40.7 40.7 40.7 35.8 35.8 35.8 31.9 35.8 35.8 51.7 51.7 51.7
IncrementDel: 9.3 9.3 9.3 7.2 7.2 7.2 0.6 9.1 9.1 49.6 49.6 49.6
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 50.0 50.0 50.0 43.1 43.1 43.1 32.5 44.9 44.9 101.3 101.3 101.3
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: 50.0 50.0 50.0 43.1 43.1 43.1 32.5 44.9 44.9 101.3 101.3 101.3
LOS by Move: D D D D D D C D D F F F
HCM2kAvgQ: 15 15 15 18 18 18 9 18 18 5 5 5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec): 100 Critical Vol./Cap. (X): 0.625
 Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 1.6
 Optimal Cycle: 90 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	1	0	3	0	0	3	2	0	0	0	0	0

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Volume Module:

Base Vol:	0	708	0	0	2307	0	0	0	0	0	0	0
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Initial Bse:	0	807	0	0	2630	0	0	0	0	0	0	0
Added Vol:	0	438	0	0	221	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1245	0	0	2851	0	0	0	0	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:	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 Volume:	0	1245	0	0	2851	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1245	0	0	2851	0	0	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	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	1245	0	0	2851	0	0	0	0	0	0	0

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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	0.97	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1900	5187	0	0	5187	1900	3686	0	1900	0	0	0

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Capacity Analysis Module:

Vol/Sat:	0.00	0.24	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****			****								
Green/Cycle:	0.00	0.88	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Volume/Cap:	0.00	0.27	0.00	0.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Del:	0.0	0.9	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IncrementDel:	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	1.0	0.0	0.0	1.9	0.0	0.0	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	1.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	0	2	0	0	9	0	0	0	0	0	0	0

Note: Queue reported is the number of cars per lane.

 Scenario Report
 Scenario: Cumulative 2025 East and West Campuses AM

Command: Long Term Project II AM
 Volume: Long Term Project II AM
 Geometry: Long Term Project II AM
 Impact Fee: Default Impact Fee
 Trip Generation: Long Term Project II AM
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Long Term Project II AM

 Impact Analysis Report
 Level Of Service

Intersection		Base		Future		Change in
		Del/ LOS	V/ Veh	Del/ LOS	V/ Veh	
# 1	Bayfront Exp. & Marsh Rd.	C	25.2 0.842	C	29.1 0.899	+ 3.878 D/V
# 2	US 101 NB Ramps & Marsh Rd.	B	16.9 0.700	F	83.6 1.225	+66.686 D/V
# 3	US 101 SB Ramps & Marsh Rd.	C	26.5 0.944	D	39.1 0.999	+12.529 D/V
# 4	Scott Dr/Rolison at Marsh Rd.	D	41.1 0.901	D	36.1 0.938	-4.986 D/V
# 5	Bohannon/ Florence & Marsh Rd.	C	20.8 0.620	B	15.6 0.653	-5.224 D/V
# 6	Bay Rd. & Marsh Rd.	B	17.4 0.644	B	19.2 0.792	+ 1.804 D/V
# 7	Middlefield at Marsh (Town of	C	29.8 0.669	D	36.1 0.904	+ 6.333 D/V
# 8	Bayfront Exp. & Willow Rd.	C	28.6 0.668	E	62.5 1.009	+33.901 D/V
# 9	Hamilton Ave. & Willow Rd.	C	23.7 0.613	C	21.6 0.771	-2.076 D/V
# 10	Ivy Dr. & Willow Rd.	B	18.7 0.567	C	27.6 0.852	+ 8.918 D/V
# 11	O'Brien Dr. & Willow Rd.	B	15.4 0.508	B	14.4 0.776	-0.978 D/V
# 12	Newbridge St. & Willow Rd.	E	59.2 0.990	E	66.8 1.046	+ 7.584 D/V
# 13	Bay Rd. & Willow Rd.	C	21.6 0.760	C	22.9 0.859	+ 1.258 D/V
# 14	Durham St. & Willow Rd.	D	35.1 0.782	B	15.5 0.849	-19.594 D/V
# 15	Coleman Ave. & Willow Rd.	B	15.3 0.784	C	23.2 0.942	+ 7.938 D/V
# 16	Gilbert Ave. & Willow Rd.	B	15.7 0.726	C	22.2 0.913	+ 6.534 D/V
# 17	Middlefield Rd. & Willow Rd.	F	114.7 1.038	F	151.9 1.324	+37.202 D/V
# 18	Bayfront Exp. & University Ave	C	32.7 0.882	D	38.8 0.948	+ 6.131 D/V
# 19	O'Brien Dr. & University Ave.	A	6.8 0.600	A	6.6 0.614	-0.198 D/V
# 20	University & Kavanaugh	B	14.4 0.617	B	14.0 0.626	-0.398 D/V
# 21	University & Bay	C	29.3 0.724	C	28.6 0.733	-0.659 D/V
# 22	University & Runnymede	C	21.7 0.687	C	21.4 0.696	-0.318 D/V
# 23	University & Bell	A	7.7 0.270	A	6.9 0.323	-0.786 D/V
# 24	University & Donohoe	D	51.0 1.014	E	55.6 1.045	+ 4.621 D/V
# 25	NB 101 & Donohoe St	B	9.1 0.418	B	9.6 0.456	+ 0.418 D/V

Intersection		Base		Future		Change in
		Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C	
# 26 University & SB US 101	B	18.1	0.704	B 18.9	0.719	+ 0.807 D/V
# 27 University Ave. & Woodland	D	50.1	0.977	D 52.3	0.992	+ 2.221 D/V
# 28 Middlefield Rd. & University A	D	38.2	0.805	D 52.0	0.929	+13.758 D/V
# 29 Bayfront Exp. & Chrysler Dr.	A	7.6	0.640	B 17.7	0.746	+10.077 D/V
# 30 Bayfront Exp. & Chilco St.	B	17.8	0.650	C 20.4	0.686	+ 2.639 D/V
# 31 Middlefield Rd. & Ravenswood A	C	23.4	0.664	C 26.3	0.745	+ 2.840 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	29.2	0.515	C 25.6	0.541	-3.586 D/V
# 33 Middlefield Rd and Lytton Ave	C	31.3	0.652	C 33.4	0.716	+ 2.102 D/V
# 34 Bayfront Expy. and Facebook We	A	1.4	0.549	B 19.1	0.792	+17.736 D/V

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.899
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 29.1
Optimal Cycle: 124 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	3	0	0	1	0	1	0	1	0	0	2	0

Volume Module: >> Count Date: 22 Oct 2009 << 7:45 - 8:45 AM

Base Vol:	2297	189	23	7	58	148	182	20	997	7	19	5
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Initial Bse:	2619	215	26	8	66	169	207	23	1137	8	22	6
Added Vol:	211	0	0	0	0	0	0	0	784	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2830	215	26	8	66	169	207	23	1921	8	22	6
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:	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 Volume:	2830	215	26	8	66	169	207	23	1921	8	22	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2830	215	26	8	66	169	207	23	1921	8	22	6
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:	2830	215	26	8	66	169	207	23	1921	8	22	6

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.96	0.96	0.93	0.93	0.83	0.94	0.94	0.73	0.95	0.95	0.95
Lanes:	3.00	0.89	0.11	0.22	1.78	1.00	0.90	0.10	2.00	0.23	0.61	0.16
Final Sat.:	5147	1633	199	379	3141	1583	1606	176	2786	407	1104	290

Capacity Analysis Module:

Vol/Sat:	0.55	0.13	0.13	0.02	0.02	0.11	0.13	0.13	0.69	0.02	0.02	0.02
Crit Moves:	****			****			****			****		
Green/Cycle:	0.60	0.60	0.60	0.12	0.12	0.12	0.15	0.15	0.75	0.04	0.04	0.04
Volume/Cap:	0.92	0.22	0.22	0.18	0.18	0.92	0.85	0.85	0.92	0.51	0.51	0.51
Uniform Del:	23.1	12.0	12.0	51.8	51.8	56.8	53.6	53.6	12.8	61.3	61.3	61.3
IncrementDel:	4.9	0.1	0.1	0.2	0.2	43.1	21.1	21.1	6.8	6.2	6.2	6.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	27.9	12.1	12.1	52.1	52.1	99.9	74.7	74.7	19.6	67.5	67.5	67.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.9	12.1	12.1	52.1	52.1	99.9	74.7	74.7	19.6	67.5	67.5	67.5
LOS by Move:	C	B	B	D	D	F	E	E	B	E	E	E
HCM2kAvgQ:	38	4	4	1	1	10	11	11	38	2	2	2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 US 101 NB Ramps & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 1.225
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 83.6
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for movement (L, T, R). Includes Control, Rights, and Lanes information.

Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM. Table with 4 columns for approaches and 3 sub-columns for movements. Rows include Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 4 columns for approaches and 3 sub-columns for movements. Rows include Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 4 columns for approaches and 3 sub-columns for movements. Rows include Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 US 101 SB Ramps & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.999
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 39.1
Optimal Cycle: 179 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for movement (L, T, R). Includes Control, Rights, and Lanes information.

Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM. Table with 4 columns for approaches and 3 sub-columns for movements. Rows include Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 4 columns for approaches and 3 sub-columns for movements. Rows include Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 4 columns for approaches and 3 sub-columns for movements. Rows include Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.938
Loss Time (sec): 14 (Y+R=4.0 sec) Average Delay (sec/veh): 36.1
Optimal Cycle: 113 Level Of Service: D

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include, Include, Include), Min. Green (4, 4, 4, 4), Lanes (0, 1, 0, 0, 2, 0, 1, 0, 0, 1, 1, 0, 2, 1, 0, 2, 0, 1, 1, 0)

Volume Module: >> Count Date: 8 Oct 2009 << 7:15 - 8:15 AM
Base Vol: 27 3 49 222 18 3 15 1131 29 268 1416 280
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 31 3 56 253 21 3 17 1289 33 306 1614 319
Added Vol: 0 0 0 0 0 0 0 0 474 0 0 111 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 31 3 56 253 21 3 17 1763 33 306 1725 319
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: 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 Volume: 31 3 56 253 21 3 17 1763 33 306 1725 319
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 31 3 56 253 21 3 17 1763 33 306 1725 319
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: 31 3 56 253 21 3 17 1763 33 306 1725 319

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.94 0.94 0.73 0.94 0.94 0.83 0.93 0.89 0.89 0.90 0.91 0.91
Lanes: 0.90 0.10 2.00 0.93 0.07 1.00 1.00 2.94 0.06 2.00 1.69 0.31
Final Sat.: 1604 178 2786 1647 134 1583 1769 4975 93 3432 2917 540

Capacity Analysis Module:
Vol/Sat: 0.02 0.02 0.02 0.15 0.15 0.00 0.01 0.35 0.35 0.09 0.59 0.59
Crit Moves: ****
Green/Cycle: 0.05 0.05 0.05 0.15 0.15 0.15 0.05 0.50 0.50 0.13 0.58 0.58
Volume/Cap: 0.38 0.38 0.40 1.03 1.03 0.01 0.19 0.71 0.71 0.71 1.03 1.03
Uniform Del: 36.8 36.8 36.8 34.0 34.0 29.0 36.5 15.5 15.5 33.6 17.0 17.0
IncrementDel: 2.7 2.7 1.9 62.5 62.5 0.0 1.1 1.0 1.0 5.4 27.7 27.7
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 39.5 39.5 38.7 96.6 96.6 29.0 37.5 16.4 16.4 39.0 44.6 44.6
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: 39.5 39.5 38.7 96.6 96.6 29.0 37.5 16.4 16.4 39.0 44.6 44.6
LOS by Move: D D D F F C D B B D D D
HCM2kAvgQ: 1 1 1 12 12 0 1 14 14 5 37 37

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.653
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.6
Optimal Cycle: 31 Level Of Service: B

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include, Include, Include), Min. Green (4, 4, 4, 4), Lanes (1, 0, 0, 1, 0, 1, 1, 0, 0, 1, 1, 0, 1, 0, 2, 0, 1)

Volume Module: >> Count Date: 7 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 15 9 8 390 30 91 117 796 58 46 1141 323
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 17 10 9 445 34 104 133 907 66 52 1301 368
Added Vol: 0 0 0 0 0 0 0 0 474 0 0 111 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 17 10 9 445 34 104 133 1381 66 52 1412 368
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: 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 Volume: 17 10 9 445 34 104 133 1381 66 52 1412 368
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 17 10 9 445 34 104 133 1381 66 52 1412 368
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: 17 10 9 445 34 104 133 1381 66 52 1412 368

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.91 0.91 0.94 0.94 0.83 0.93 0.92 0.92 0.93 0.93 0.83
Lanes: 1.00 0.53 0.47 1.86 0.14 1.00 1.00 1.91 0.09 1.00 2.00 1.00
Final Sat.: 1769 916 814 3306 254 1583 1769 3353 160 1769 3538 1583

Capacity Analysis Module:
Vol/Sat: 0.01 0.01 0.01 0.13 0.13 0.07 0.08 0.41 0.41 0.03 0.40 0.23
Crit Moves: ****
Green/Cycle: 0.05 0.05 0.05 0.20 0.20 0.20 0.11 0.63 0.63 0.08 0.59 0.59
Volume/Cap: 0.19 0.22 0.22 0.68 0.68 0.33 0.68 0.66 0.66 0.39 0.68 0.39
Uniform Del: 36.5 36.5 36.5 29.7 29.7 27.5 34.2 9.5 9.5 35.2 11.2 8.8
IncrementDel: 1.1 1.3 1.3 2.6 2.6 0.6 9.0 0.7 0.7 1.9 0.9 0.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 37.5 37.8 37.8 32.3 32.3 28.1 43.2 10.3 10.3 37.1 12.1 9.0
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: 37.5 37.8 37.8 32.3 32.3 28.1 43.2 10.3 10.3 37.1 12.1 9.0
LOS by Move: D D D C C C D B B D B A
HCM2kAvgQ: 1 1 1 7 7 2 5 13 13 2 13 5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Bay Rd. & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.792
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 19.2
Optimal Cycle: 47 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Permitted, Protected), Rights (Include, Ovl), Min. Green, Lanes.

Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 70 3 177 112 28 5 2 665 66 264 982 22
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 80 3 202 128 32 6 2 758 75 301 1119 25
Added Vol: 1 0 0 0 0 0 0 0 474 2 0 111 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 81 3 202 128 32 6 2 1232 77 301 1230 25
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 81 3 202 128 32 6 2 1232 77 301 1230 25
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 81 3 202 128 32 6 2 1232 77 301 1230 25
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 81 3 202 128 32 6 2 1232 77 301 1230 25

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.79 0.79 0.79 0.52 0.52 0.52 0.88 0.88 0.88 0.93 0.93 0.93
Lanes: 0.28 0.01 0.71 0.78 0.19 0.03 0.01 1.88 0.11 1.00 1.96 0.04
Final Sat.: 425 18 1062 763 191 34 6 3145 197 1769 3457 70

Capacity Analysis Module:
Vol/Sat: 0.19 0.19 0.19 0.17 0.17 0.17 0.39 0.39 0.39 0.17 0.36 0.36
Crit Moves: ****
Green/Cycle: 0.26 0.26 0.26 0.26 0.26 0.26 0.48 0.48 0.48 0.21 0.69 0.69
Volume/Cap: 0.72 0.72 0.72 0.64 0.64 0.64 0.82 0.82 0.82 0.82 0.52 0.52
Uniform Del: 26.8 26.8 26.8 26.1 26.1 26.1 17.9 17.9 17.9 30.2 6.1 6.1
IncrementDel: 6.4 6.4 6.4 5.1 5.1 5.1 3.4 3.4 3.4 13.4 0.2 0.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 33.2 33.2 33.2 31.2 31.2 31.2 21.3 21.3 21.3 43.7 6.3 6.3
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: 33.2 33.2 33.2 31.2 31.2 31.2 21.3 21.3 21.3 43.7 6.3 6.3
LOS by Move: C C C C C C C C C D A A
HCM2kAvgQ: 8 8 8 5 5 5 17 17 17 10 8 8

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Middlefield at Marsh (Town of Atherton)
Cycle (sec): 110 Critical Vol./Cap. (X): 0.904
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 36.1
Optimal Cycle: 112 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Protected), Rights (Include, Ovl), Min. Green, Lanes.

Volume Module: >> Count Date: 18 Nov 2009 << 7:15-8:15 a.m.
Base Vol: 0 166 397 342 367 0 0 0 0 463 0 169
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 0 189 453 390 418 0 0 0 0 528 0 193
Added Vol: 0 8 152 323 64 0 0 0 0 55 0 57
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 197 605 713 482 0 0 0 0 583 0 250
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: 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 Volume: 0 197 605 713 482 0 0 0 0 583 0 250
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 197 605 713 482 0 0 0 0 583 0 250
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: 0 197 605 713 482 0 0 0 0 583 0 250

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 0.85 0.95 1.00 1.00 1.00 1.00 1.00 0.95 1.00 0.85
Lanes: 0.00 1.00 1.00 1.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Final Sat.: 0 1900 1615 1805 1900 0 0 0 0 1805 0 1615

Capacity Analysis Module:
Vol/Sat: 0.00 0.10 0.37 0.39 0.25 0.00 0.00 0.00 0.00 0.32 0.00 0.15
Crit Moves: ****
Green/Cycle: 0.00 0.11 0.47 0.44 0.55 0.00 0.00 0.00 0.00 0.36 0.00 0.79
Volume/Cap: 0.00 0.90 0.79 0.90 0.46 0.00 0.00 0.00 0.00 0.90 0.00 0.19
Uniform Del: 0.0 48.1 24.5 28.8 14.8 0.0 0.0 0.0 0.0 33.6 0.0 2.8
IncrementDel: 0.0 35.9 5.7 13.8 0.3 0.0 0.0 0.0 0.0 16.2 0.0 0.1
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Delay/Veh: 0.0 83.9 30.2 42.6 15.1 0.0 0.0 0.0 0.0 49.7 0.0 2.8
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 83.9 30.2 42.6 15.1 0.0 0.0 0.0 0.0 49.7 0.0 2.8
LOS by Move: A F C D B A A A A D A A
HCM2kAvgQ: 0 10 19 26 10 0 0 0 0 22 0 2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.009
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 62.5
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 7:45 - 8:45 AM
Base Vol: 1034 2108 6 13 677 92 84 34 379 3 6 5
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.03 0.83 0.90 1.03 0.83 0.91 0.91 0.88 0.93 0.93 0.83

Capacity Analysis Module:
Vol/Sat: 0.36 0.49 0.02 0.13 0.14 0.09 0.28 0.28 0.13 0.02 0.01 0.01
Crit Moves: ****
Green/Cycle: 0.43 0.47 0.51 0.13 0.17 0.17 0.27 0.27 0.27 0.04 0.04 0.04

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.771
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 21.6
Optimal Cycle: 73 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 7 Oct 2009 << 8:00 am - 9:00 am
Base Vol: 18 13 26 71 19 72 115 415 52 56 1037 74
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.80 0.80 0.80 0.77 0.77 0.77 0.93 0.93 0.93 0.93 0.92 0.92

Capacity Analysis Module:
Vol/Sat: 0.04 0.04 0.04 0.14 0.14 0.14 0.08 0.53 0.53 0.04 0.40 0.40
Crit Moves: ****
Green/Cycle: 0.18 0.18 0.18 0.18 0.18 0.18 0.12 0.69 0.69 0.05 0.62 0.62

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.852
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 27.6
Optimal Cycle: 97 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 5 0 5 5 5 0 0 5 5
Lanes: 0 0 0 0 0 0 0 1 0 0 1 0 2 0 0 0 0 1 1 0

Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 0 0 0 1 0 186 82 652 0 0 1021 14
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 0 0 0 1 0 212 93 743 0 0 1164 16
Added Vol: 0 0 0 190 0 6 7 1159 0 0 134 14
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 191 0 218 100 1902 0 0 1298 30
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 0 0 0 191 0 218 100 1902 0 0 1298 30
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 191 0 218 100 1902 0 0 1298 30
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 0 0 191 0 218 100 1902 0 0 1298 30

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.89 1.00 0.89 0.93 0.93 1.00 1.00 0.93 0.93
Lanes: 0.00 0.00 0.00 0.47 0.00 0.53 1.00 2.00 0.00 0.00 1.95 0.05
Final Sat.: 0 0 0 789 0 900 1769 3538 0 0 3448 80

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.24 0.00 0.24 0.06 0.54 0.00 0.00 0.38 0.38
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.28 0.00 0.28 0.08 0.63 0.00 0.00 0.55 0.55
Volume/Cap: 0.00 0.00 0.00 0.85 0.00 0.85 0.69 0.85 0.00 0.00 0.69 0.69
Uniform Del: 0.0 0.0 0.0 43.9 0.0 43.9 58.0 19.1 0.0 0.0 21.3 21.3
IncrementDel: 0.0 0.0 0.0 13.7 0.0 13.7 12.8 3.4 0.0 0.0 1.1 1.1
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Delay/Veh: 0.0 0.0 0.0 57.6 0.0 57.6 70.8 22.5 0.0 0.0 22.3 22.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 57.6 0.0 57.6 70.8 22.5 0.0 0.0 22.3 22.3
LOS by Move: A A A E A E E C A A C C
HCM2kAvgQ: 0 0 0 18 0 18 5 34 0 0 20 20

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.776
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.4
Optimal Cycle: 74 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 0 5 0 0 0 0 5 5 5 5 0
Lanes: 1 0 1 0 0 0 0 0 0 0 0 2 0 1 1 0 2 0 0

Volume Module: >> Count Date: 8 Oct 2009 << 8:00 am - 9:00 am
Base Vol: 130 0 67 0 0 0 0 697 250 102 1171 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 148 0 76 0 0 0 0 795 285 116 1335 0
Added Vol: 10 0 0 0 0 0 0 1166 2 0 140 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 158 0 76 0 0 0 0 1961 287 116 1475 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: 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 Volume: 158 0 76 0 0 0 0 1961 287 116 1475 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 158 0 76 0 0 0 0 1961 287 116 1475 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: 158 0 76 0 0 0 0 1961 287 116 1475 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.00 0.90 1.00 1.00 1.00 1.00 0.93 0.83 0.93 0.93 1.00
Lanes: 1.51 0.00 0.49 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 2583 0 841 0 0 0 0 3538 1583 1769 3538 0

Capacity Analysis Module:
Vol/Sat: 0.06 0.00 0.09 0.00 0.00 0.00 0.00 0.55 0.18 0.07 0.42 0.00
Crit Moves: ****
Green/Cycle: 0.12 0.00 0.12 0.00 0.00 0.00 0.00 0.71 0.71 0.08 0.80 0.00
Volume/Cap: 0.52 0.00 0.78 0.00 0.00 0.00 0.00 0.78 0.25 0.78 0.52 0.00
Uniform Del: 54.0 0.0 55.7 0.0 0.0 0.0 0.0 11.9 6.5 58.3 4.5 0.0
IncrementDel: 1.1 0.0 12.0 0.0 0.0 0.0 0.0 1.6 0.1 22.1 0.2 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00 0.00
Delay/Veh: 55.1 0.0 67.7 0.0 0.0 0.0 0.0 13.5 6.6 80.4 4.7 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 55.1 0.0 67.7 0.0 0.0 0.0 0.0 13.5 6.6 80.4 4.7 0.0
LOS by Move: E A E A A A A B A F A A
HCM2kAvgQ: 5 0 8 0 0 0 0 27 4 6 11 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.046
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 66.8
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 7 Oct 2009 << 7:30 AM to 8:30 AM. Grid of traffic volume data for Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Grid of Sat/Lane, Adjustment, Lanes, and Final Sat. values.

Capacity Analysis Module: Grid of Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.859
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 22.9
Optimal Cycle: 91 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM. Grid of traffic volume data for Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Grid of Sat/Lane, Adjustment, Lanes, and Final Sat. values.

Capacity Analysis Module: Grid of Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.849
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 15.5
Optimal Cycle: 75 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Permitted, Protected), Rights (Include, Include), Min. Green (4, 4, 4), Lanes (1, 0, 0, 1, 0)

Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 62 16 125 38 2 2 12 1001 9 41 850 142
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 71 18 143 43 2 2 14 1141 10 47 969 162
Added Vol: 0 0 0 0 0 0 0 0 306 0 0 115 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 71 18 143 43 2 2 14 1447 10 47 1084 162
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: 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 Volume: 71 18 143 43 2 2 14 1447 10 47 1084 162
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 71 18 143 43 2 2 14 1447 10 47 1084 162
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: 71 18 143 43 2 2 14 1447 10 47 1084 162

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.72 0.85 0.85 0.40 0.40 0.83 0.93 0.93 0.93 0.93 0.96 0.96
Lanes: 1.00 0.11 0.89 0.95 0.05 1.00 1.00 1.99 0.01 1.00 0.87 0.13
Final Sat.: 1359 183 1431 723 38 1583 1769 3509 25 1769 1589 237

Capacity Analysis Module:
Vol/Sat: 0.05 0.10 0.10 0.06 0.06 0.00 0.01 0.41 0.41 0.03 0.68 0.68
Crit Moves: ****
Green/Cycle: 0.11 0.11 0.11 0.11 0.11 0.11 0.04 0.74 0.74 0.07 0.78 0.78
Volume/Cap: 0.46 0.88 0.88 0.53 0.53 0.01 0.19 0.55 0.55 0.37 0.88 0.88
Uniform Del: 41.5 43.7 43.7 41.8 41.8 39.4 46.4 5.6 5.6 44.2 7.8 7.8
IncrementDel: 2.2 34.9 34.9 6.0 6.0 0.0 1.3 0.3 0.3 1.8 6.6 6.6
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 43.6 78.5 78.5 47.8 47.8 39.4 47.8 5.8 5.8 46.0 14.4 14.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 43.6 78.5 78.5 47.8 47.8 39.4 47.8 5.8 5.8 46.0 14.4 14.4
LOS by Move: D E E D D D D A A D B B B
HCM2kAvgQ: 3 8 8 2 2 0 1 10 10 2 30 30

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.942
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 23.2
Optimal Cycle: 128 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Permitted, Protected), Rights (Include, Include), Min. Green (4, 4, 4), Lanes (0, 0, 1, 0, 0)

Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM
Base Vol: 3 3 8 142 6 48 17 892 5 6 854 62
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 3 3 9 162 7 55 19 1017 6 7 974 71
Added Vol: 0 0 0 0 0 0 0 0 306 0 0 115 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 3 3 9 162 7 55 19 1323 6 7 1089 71
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 3 3 9 162 7 55 19 1323 6 7 1089 71
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 3 3 9 162 7 55 19 1323 6 7 1089 71
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: 3 3 9 162 7 55 19 1323 6 7 1089 71

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.87 0.87 0.87 0.72 0.72 0.72 0.12 0.98 0.98 0.05 0.97 0.97
Lanes: 0.21 0.21 0.58 0.73 0.03 0.24 1.00 0.99 0.01 1.00 0.94 0.06
Final Sat.: 355 355 947 998 42 337 225 1852 8 99 1733 113

Capacity Analysis Module:
Vol/Sat: 0.01 0.01 0.01 0.16 0.16 0.16 0.09 0.71 0.71 0.07 0.63 0.63
Crit Moves: ****
Green/Cycle: 0.17 0.17 0.17 0.17 0.17 0.17 0.76 0.76 0.76 0.76 0.76 0.76
Volume/Cap: 0.06 0.06 0.06 0.94 0.94 0.94 0.11 0.94 0.94 0.09 0.83 0.83
Uniform Del: 34.6 34.6 34.6 40.9 40.9 40.9 3.2 10.3 10.3 3.1 7.9 7.9
IncrementDel: 0.1 0.1 0.1 42.6 42.6 42.6 0.3 12.7 12.7 0.5 4.3 4.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 34.7 34.7 34.7 83.5 83.5 83.5 3.5 23.0 23.0 3.7 12.2 12.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 34.7 34.7 34.7 83.5 83.5 83.5 3.5 23.0 23.0 3.7 12.2 12.2
LOS by Move: C C C F F F A C C A B B B
HCM2kAvgQ: 0 0 0 11 11 11 0 40 40 0 25 25

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.913
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 22.2
Optimal Cycle: 105 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 101 85 122 31 41 7 4 794 72 41 869 5
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.71 0.88 0.88 0.22 0.96 0.96 0.14 0.97 0.97 0.06 0.98 0.98

Capacity Analysis Module:
Vol/Sat: 0.09 0.16 0.16 0.08 0.03 0.03 0.02 0.69 0.69 0.44 0.59 0.59
Crit Moves: ****
Green/Cycle: 0.18 0.18 0.18 0.18 0.18 0.18 0.75 0.75 0.75 0.75 0.75 0.75

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.324
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 151.9
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 8:00 - 9:00 AM
Base Vol: 67 342 245 408 322 10 16 166 117 420 64 494
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.93 0.42 0.90 0.90 0.90 0.93 0.98 0.83 0.94 0.94 0.83

Capacity Analysis Module:
Vol/Sat: 0.05 0.11 0.53 0.19 0.19 0.19 0.01 0.12 0.09 0.17 0.17 0.41
Crit Moves: ****
Green/Cycle: 0.40 0.40 0.40 0.14 0.14 0.14 0.09 0.09 0.09 0.31 0.31 0.31

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 160 Critical Vol./Cap. (X): 0.948
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 38.8
Optimal Cycle: 180 Level Of Service: D

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Volume Module: >> Count Date: 1 Oct 2009 << 7:15 - 8:15 AM
Base Vol: 1541 2882 0 0 884 188 179 0 429 0 0 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.89 1.00 1.00 0.89 0.83 0.90 1.00 0.73 1.00 1.00 1.00

Capacity Analysis Module:
Vol/Sat: 0.52 0.77 0.00 0.00 0.21 0.14 0.11 0.00 0.12 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.57 0.81 0.00 0.00 0.24 0.24 0.13 0.00 0.13 0.00 0.00 0.00

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 0.614
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 6.6
Optimal Cycle: 46 Level Of Service: A

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Volume Module: >> Count Date: 8 Oct 2009 << 7:45 - 8:45 AM
Base Vol: 0 0 0 22 0 22 68 526 0 0 1341 46
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.89 1.00 0.89 0.93 0.93 1.00 1.00 0.93 0.93

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.03 0.00 0.03 0.04 0.22 0.00 0.00 0.46 0.46
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.06 0.00 0.06 0.07 0.81 0.00 0.00 0.74 0.74

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap. (X): 0.626
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.0
Optimal Cycle: 85 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 12 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap. (X): 0.733
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 28.6
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 12 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap. (X): 0.696
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 21.4
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Protected, Permitted), Rights (Include, Include, Include).

Volume Module:
Base Vol: 47 105 12 16 59 56 18 626 48 88 1246 61
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 54 120 14 18 67 64 21 714 55 100 1420 70
Added Vol: 0 0 0 0 0 0 0 0 186 0 0 27 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 54 120 14 18 67 64 21 900 55 100 1447 70
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: 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 Volume: 54 120 14 18 67 64 21 900 55 100 1447 70
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 54 120 14 18 67 64 21 900 55 100 1447 70
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: 54 120 14 18 67 64 21 900 55 100 1447 70

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.98 0.98 0.98 0.94 0.94 0.94 0.95 0.94 0.94 0.95 0.94 0.94
Lanes: 0.29 0.64 0.07 0.12 0.45 0.43 1.00 1.89 0.11 1.00 1.91 0.09
Final Sat.: 532 1187 136 217 801 761 1805 3372 205 1805 3420 164

Capacity Analysis Module:
Vol/Sat: 0.10 0.10 0.10 0.08 0.08 0.08 0.01 0.27 0.27 0.06 0.42 0.42
Crit Moves: ****
Green/Cycle: 0.14 0.14 0.14 0.12 0.12 0.12 0.05 0.53 0.53 0.11 0.58 0.58
Volume/Cap: 0.72 0.72 0.72 0.72 0.72 0.72 0.23 0.51 0.51 0.51 0.72 0.72
Uniform Del: 41.2 41.2 41.2 42.7 42.7 42.7 45.6 15.4 15.4 42.0 14.9 14.9
IncrementDel: 9.7 9.7 9.7 11.9 11.9 11.9 1.3 0.2 0.2 2.2 1.3 1.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 50.9 50.9 50.9 54.6 54.6 54.6 46.9 15.6 15.6 44.2 16.2 16.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 50.9 50.9 50.9 54.6 54.6 54.6 46.9 15.6 15.6 44.2 16.2 16.2
LOS by Move: D D D D D D D B B D B B
HCM2kAvgQ: 7 7 7 6 6 6 1 10 10 4 18 18

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #23 University & Bell

Cycle (sec): 95 Critical Vol./Cap. (X): 0.323
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 6.9
Optimal Cycle: 91 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Permitted, Permitted, Permitted), Rights (Include, Include, Include).

Volume Module:
Base Vol: 18 59 9 7 43 11 15 614 24 15 123 24
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 21 67 10 8 49 13 17 700 27 17 140 27
Added Vol: 0 0 0 0 0 0 0 0 186 0 0 27 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 21 67 10 8 49 13 17 886 27 17 167 27
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: 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 Volume: 21 67 10 8 49 13 17 886 27 17 167 27
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 21 67 10 8 49 13 17 886 27 17 167 27
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: 21 67 10 8 49 13 17 886 27 17 167 27

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.93 0.93 0.95 0.95 0.95 0.62 0.95 0.95 0.29 0.93 0.93
Lanes: 0.21 0.69 0.10 0.11 0.71 0.18 1.00 1.94 0.06 1.00 1.72 0.28
Final Sat.: 369 1208 184 207 1269 325 1182 3488 108 551 3037 497

Capacity Analysis Module:
Vol/Sat: 0.06 0.06 0.06 0.04 0.04 0.04 0.01 0.25 0.25 0.03 0.06 0.06
Crit Moves: ****
Green/Cycle: 0.17 0.17 0.17 0.17 0.17 0.17 0.79 0.79 0.79 0.79 0.79 0.79
Volume/Cap: 0.32 0.32 0.32 0.22 0.22 0.22 0.02 0.32 0.32 0.04 0.07 0.07
Uniform Del: 34.5 34.5 34.5 33.9 33.9 33.9 2.2 2.9 2.9 2.3 2.3 2.3
IncrementDel: 0.6 0.6 0.6 0.4 0.4 0.4 0.0 0.1 0.1 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 35.1 35.1 35.1 34.2 34.2 34.2 2.2 3.0 3.0 2.3 2.3 2.3
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: 35.1 35.1 35.1 34.2 34.2 34.2 2.2 3.0 3.0 2.3 2.3 2.3
LOS by Move: D D D C C C A A A A A A
HCM2kAvgQ: 3 3 3 2 2 2 0 4 4 0 1 1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap. (X): 1.045
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 55.6
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 10 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 10 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 10 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 65 Critical Vol./Cap. (X): 0.456
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 9.6
Optimal Cycle: 57 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 10 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 10 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 10 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue).

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #26 University & SB US 101

Cycle (sec): 85 Critical Vol./Cap. (X): 0.719
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 18.9
Optimal Cycle: 180 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #27 University Ave. & Woodland

Cycle (sec): 100 Critical Vol./Cap. (X): 0.992
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 52.3
Optimal Cycle: 180 Level Of Service: D

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.929
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 52.0
Optimal Cycle: 124 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Include), Rights (Min. Green, Lanes).

Volume Module:
Base Vol: 37 264 51 92 391 62 15 228 24 73 584 95
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 42 301 58 105 446 71 17 260 27 83 666 108
Added Vol: 1 131 67 6 30 2 31 27 0 5 37 9
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 43 432 125 111 476 73 48 287 27 88 703 117
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: 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 Volume: 43 432 125 111 476 73 48 287 27 88 703 117
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 43 432 125 111 476 73 48 287 27 88 703 117
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: 43 432 125 111 476 73 48 287 27 88 703 117

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.92 0.92 0.93 0.93 0.93 0.95 0.99 0.99 0.95 0.98 0.98
Lanes: 0.14 1.44 0.42 0.34 1.44 0.22 1.00 0.91 0.09 1.00 0.86 0.14
Final Sat.: 251 2507 726 593 2543 388 1805 1712 163 1805 1594 266

Capacity Analysis Module:
Vol/Sat: 0.17 0.17 0.17 0.19 0.19 0.19 0.03 0.17 0.17 0.05 0.44 0.44
Crit Moves: ****
Green/Cycle: 0.18 0.18 0.18 0.20 0.20 0.20 0.05 0.39 0.39 0.12 0.46 0.46
Volume/Cap: 0.95 0.95 0.95 0.95 0.95 0.95 0.53 0.42 0.42 0.41 0.95 0.95
Uniform Del: 40.5 40.5 40.5 39.7 39.7 39.7 46.4 22.0 22.0 40.9 25.8 25.8
IncrementDel: 24.6 24.6 24.6 23.2 23.2 23.2 6.0 0.4 0.4 1.3 20.0 20.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 65.2 65.2 65.2 62.9 62.9 62.9 52.4 22.4 22.4 42.2 45.9 45.9
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: 65.2 65.2 65.2 62.9 62.9 62.9 52.4 22.4 22.4 42.2 45.9 45.9
LOS by Move: E E E E E D C C D D D
HCM2kAvgQ: 14 14 14 15 15 15 2 7 7 3 30 30

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.746
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 17.7
Optimal Cycle: 61 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Include, Split Phase), Rights (Min. Green, Lanes).

Volume Module:
Base Vol: 45 2362 0 0 1034 31 103 0 6 0 0 0 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 51 2693 0 0 1179 35 117 0 7 0 0 0 0
Added Vol: 94 56 0 0 784 0 154 0 21 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 145 2749 0 0 1963 35 271 0 28 0 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: 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 Volume: 145 2749 0 0 1963 35 271 0 28 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 145 2749 0 0 1963 35 271 0 28 0 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: 145 2749 0 0 1963 35 271 0 28 0 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.89 1.00 1.00 0.89 0.83 0.93 1.00 0.83 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.: 1769 5083 0 0 5083 1583 1769 0 1583 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.08 0.54 0.00 0.00 0.39 0.02 0.15 0.00 0.02 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.13 0.73 0.00 0.00 0.60 0.60 0.21 0.00 0.21 0.00 0.00 0.00
Volume/Cap: 0.65 0.75 0.00 0.00 0.65 0.04 0.75 0.00 0.09 0.00 0.00 0.00
Uniform Del: 53.9 10.7 0.0 0.0 17.1 10.8 48.4 0.0 41.7 0.0 0.0 0.0
IncrementDel: 6.4 0.9 0.0 0.0 0.5 0.0 8.2 0.0 0.1 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00
Delay/Veh: 60.3 11.6 0.0 0.0 17.6 10.8 56.6 0.0 41.9 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: 60.3 11.6 0.0 0.0 17.6 10.8 56.6 0.0 41.9 0.0 0.0 0.0
LOS by Move: E B A A B B E A D A A A
HCM2kAvgQ: 7 25 0 0 19 1 12 0 1 0 0 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.686
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 20.4
Optimal Cycle: 51 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.745
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 26.3
Optimal Cycle: 41 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.541
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 25.6
Optimal Cycle: 24 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 21 Oct 2009 << 7:30 - 8:30 AM
Base Vol: 57 623 49 192 709 68 3 3 3 123 53 241
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 65 710 56 219 808 78 3 3 3 140 60 275
Added Vol: 0 84 0 1 105 0 0 0 0 0 0 1
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 65 794 56 220 913 78 3 3 3 140 60 276
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: 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 Volume: 65 794 56 220 913 78 3 3 3 140 60 276
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 65 794 56 220 913 78 3 3 3 140 60 276
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 65 794 56 220 913 78 3 3 3 140 60 276

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.93 0.83 0.93 0.93 0.83 0.47 0.91 0.91 0.77 0.77 0.83
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.50 0.50 0.70 0.30 1.00
Final Sat.: 1769 3538 1583 1769 3538 1583 896 861 861 1020 440 1583

Capacity Analysis Module:
Vol/Sat: 0.04 0.22 0.04 0.12 0.26 0.05 0.00 0.00 0.00 0.14 0.14 0.17
Crit Moves: ****
Green/Cycle: 0.08 0.41 0.41 0.23 0.56 0.56 0.32 0.32 0.32 0.32 0.32 0.32
Volume/Cap: 0.46 0.54 0.09 0.54 0.46 0.09 0.01 0.01 0.01 0.43 0.43 0.54
Uniform Del: 52.7 26.5 21.3 40.7 15.3 12.0 27.7 27.7 27.7 32.0 32.0 33.4
IncrementDel: 2.3 0.4 0.1 1.5 0.2 0.0 0.0 0.0 0.0 0.6 0.6 1.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 55.0 26.9 21.3 42.1 15.5 12.0 27.7 27.7 27.7 32.6 32.6 34.6
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: 55.0 26.9 21.3 42.1 15.5 12.0 27.7 27.7 27.7 32.6 32.6 34.6
LOS by Move: E C C D B B C C C C C C
HCM2kAvgQ: 3 12 1 8 10 1 0 0 0 6 6 9

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 100 Critical Vol./Cap. (X): 0.716
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 33.4
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:
Base Vol: 115 314 8 7 490 355 114 34 45 6 97 5
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 131 358 9 8 559 405 130 39 51 7 111 6
Added Vol: 0 170 0 0 39 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 131 528 9 8 598 405 130 39 51 7 111 6
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: 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 Volume: 131 528 9 8 598 405 130 39 51 7 111 6
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 131 528 9 8 598 405 130 39 51 7 111 6
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: 131 528 9 8 598 405 130 39 51 7 111 6

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.94 0.94 0.94 0.89 0.89 0.89 0.94 0.94 0.94 0.99 0.99 0.99
Lanes: 0.39 1.58 0.03 0.02 1.18 0.80 1.42 0.25 0.33 0.05 0.90 0.05
Final Sat.: 700 2818 49 27 2007 1359 2526 445 589 105 1691 87

Capacity Analysis Module:
Vol/Sat: 0.19 0.19 0.19 0.30 0.30 0.30 0.05 0.09 0.09 0.07 0.07 0.07
Crit Moves: ****
Green/Cycle: 0.26 0.26 0.26 0.42 0.42 0.42 0.12 0.12 0.12 0.09 0.09 0.09
Volume/Cap: 0.72 0.72 0.72 0.72 0.72 0.72 0.42 0.72 0.72 0.72 0.72 0.72
Uniform Del: 33.6 33.6 33.6 24.3 24.3 24.3 40.7 42.3 42.3 44.2 44.2 44.2
IncrementDel: 2.7 2.7 2.7 1.8 1.8 1.8 0.6 7.8 7.8 13.5 13.5 13.5
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 36.2 36.2 36.2 26.1 26.1 26.1 41.2 50.1 50.1 57.6 57.6 57.6
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: 36.2 36.2 36.2 26.1 26.1 26.1 41.2 50.1 50.1 57.6 57.6 57.6
LOS by Move: D D D C C C D D D E E E
HCM2kAvgQ: 11 11 11 15 15 15 3 6 6 5 5 5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec): 100 Critical Vol./Cap. (X): 0.792
 Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 19.1
 Optimal Cycle: 90 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	1	0	3	0	0	3	2	0	0	0	0	0

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Volume Module:

Base Vol:	0	2197	0	0	0	782	0	0	0	0	0	0
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Initial Bse:	0	2505	0	0	0	891	0	0	0	0	0	0
Added Vol:	725	216	0	0	0	500	81	25	0	43	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	725	2721	0	0	0	1391	81	25	0	43	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:	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 Volume:	725	2721	0	0	0	1391	81	25	0	43	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	725	2721	0	0	0	1391	81	25	0	43	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:	725	2721	0	0	0	1391	81	25	0	43	0	0

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Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	1.00	1.00	0.91	0.85	0.92	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	5187	0	0	5187	1615	3502	0	1615	0	0	0

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Capacity Analysis Module:

Vol/Sat:	0.40	0.52	0.00	0.00	0.27	0.05	0.01	0.00	0.03	0.00	0.00	0.00
Crit Moves:	****			****			****					
Green/Cycle:	0.47	0.78	0.00	0.00	0.31	0.31	0.10	0.00	0.10	0.00	0.00	0.00
Volume/Cap:	0.86	0.67	0.00	0.00	0.86	0.16	0.07	0.00	0.27	0.00	0.00	0.00
Uniform Del:	23.7	5.1	0.0	0.0	32.3	24.9	40.8	0.0	41.6	0.0	0.0	0.0
IncrementDel:	8.8	0.5	0.0	0.0	4.9	0.2	0.1	0.0	0.9	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	32.5	5.5	0.0	0.0	37.2	25.0	40.9	0.0	42.5	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:	32.5	5.5	0.0	0.0	37.2	25.0	40.9	0.0	42.5	0.0	0.0	0.0
LOS by Move:	C	A	A	A	D	C	D	A	D	A	A	A
HCM2kAvgQ:	23	15	0	0	18	2	0	0	1	0	0	0

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: Cumulative 2025 East and West Campuses PM

Command: Long Term Project II PM
 Volume: Long Term Project II PM
 Geometry: Long Term Project II PM
 Impact Fee: Default Impact Fee
 Trip Generation: Long Term Project II PM
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Long Term Project II PM

Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh	Del/ LOS	V/ Veh	
# 1 Bayfront Exp. & Marsh Rd.	E	77.7 1.075	F	86.5 1.109	+ 8.785 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	19.2 0.929	D	48.1 1.116	+28.869 D/V
# 3 US 101 SB Ramps & Marsh Rd.	C	23.8 0.931	D	40.6 1.029	+16.739 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	C	24.3 0.781	C	27.4 0.936	+ 3.086 D/V
# 5 Bohannon/ Florence & Marsh Rd.	C	29.2 0.664	C	23.4 0.819	-5.749 D/V
# 6 Bay Rd. & Marsh Rd.	B	15.9 0.659	B	15.3 0.697	-0.622 D/V
# 7 Middlefield at Marsh (Town of	D	39.4 0.922	D	54.6 1.062	+15.246 D/V
# 8 Bayfront Exp. & Willow Rd.	E	67.9 1.045	F	146.8 1.314	+78.891 D/V
# 9 Hamilton Ave. & Willow Rd.	C	23.7 0.693	C	28.1 0.890	+ 4.411 D/V
# 10 Ivy Dr. & Willow Rd.	B	12.8 0.619	B	17.4 0.863	+ 4.644 D/V
# 11 O'Brien Dr. & Willow Rd.	B	10.4 0.622	A	9.9 0.704	-0.472 D/V
# 12 Newbridge St. & Willow Rd.	D	36.8 0.838	E	77.2 1.172	+40.369 D/V
# 13 Bay Rd. & Willow Rd.	C	22.2 0.833	C	24.2 0.879	+ 2.043 D/V
# 14 Durham St. & Willow Rd.	E	56.1 0.728	C	21.8 0.893	-34.347 D/V
# 15 Coleman Ave. & Willow Rd.	B	14.3 0.833	B	18.0 0.910	+ 3.616 D/V
# 16 Gilbert Ave. & Willow Rd.	B	14.1 0.745	B	14.6 0.847	+ 0.507 D/V
# 17 Middlefield Rd. & Willow Rd.	F	153.6 1.404	F	215.7 1.543	+62.139 D/V
# 18 Bayfront Exp. & University Ave	F	211.8 1.460	F	251.8 1.585	+39.940 D/V
# 19 O'Brien Dr. & University Ave.	B	14.3 0.760	B	14.6 0.778	+ 0.313 D/V
# 20 University & Kavanaugh	B	17.7 0.732	B	17.4 0.743	-0.303 D/V
# 21 University & Bay	D	39.5 0.918	D	39.6 0.929	+ 0.121 D/V
# 22 University & Runnymede	C	24.8 0.770	C	24.7 0.780	-0.091 D/V
# 23 University & Bell	A	8.2 0.605	A	8.1 0.615	-0.126 D/V
# 24 University & Donohoe	D	43.4 0.962	D	46.3 0.974	+ 2.819 D/V
# 25 NB 101 & Donohoe St	B	14.3 0.532	B	14.4 0.537	+ 0.108 D/V

Intersection		Base		Future		Change	in
		Del/ LOS	V/ Veh	Del/ LOS	V/ Veh		
# 26 University & SB US 101	C	33.4	0.580	C 34.3	0.607	+ 0.849	D/V
# 27 University Ave. & Woodland	E	57.6	0.980	E 60.1	1.000	+ 2.534	D/V
# 28 Middlefield Rd. & University A	C	33.8	0.613	D 36.4	0.693	+ 2.632	D/V
# 29 Bayfront Exp. & Chrysler Dr.	C	20.8	0.777	F 101.3	1.193	+80.462	D/V
# 30 Bayfront Exp. & Chilco St.	B	15.0	0.666	B 19.0	0.782	+ 3.987	D/V
# 31 Middlefield Rd. & Ravenswood A	C	30.5	0.818	C 32.7	0.877	+ 2.193	D/V
# 32 Middlefield Rd. & Ringwood Ave	C	29.6	0.689	C 30.0	0.720	+ 0.481	D/V
# 33 Middlefield Rd and Lytton Ave	D	41.7	0.803	D 45.8	0.870	+ 4.051	D/V
# 34 Bayfront Expy. and Facebook We	A	1.5	0.576	D 43.8	0.965	+42.344	D/V

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 140 Critical Vol./Cap. (X): 1.109
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 86.5
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Include			Ovl			Ovl			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	3	0	0	1	0	1	0	1	0	0	2	0

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Volume Module: >> Count Date: 22 Oct 2009 << 4:45 - 5:45 PM

Base Vol:	1184	49	7	0	346	186	139	40	1952	31	73	11
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Initial Bse:	1350	56	8	0	394	212	158	46	2225	35	83	13
Added Vol:	1224	0	0	0	0	0	0	0	86	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2574	56	8	0	394	212	158	46	2311	35	83	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	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 Volume:	2574	56	8	0	394	212	158	46	2311	35	83	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2574	56	8	0	394	212	158	46	2311	35	83	13
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:	2574	56	8	0	394	212	158	46	2311	35	83	13

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Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.96	0.96	0.95	0.93	0.83	0.94	0.94	0.73	0.95	0.95	0.95
Lanes:	3.00	0.87	0.13	0.00	2.00	1.00	0.78	0.22	2.00	0.27	0.63	0.10
Final Sat.:	5147	1598	228	0	3538	1583	1392	401	2786	489	1151	174

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Capacity Analysis Module:

Vol/Sat:	0.50	0.03	0.03	0.00	0.11	0.13	0.11	0.11	0.83	0.07	0.07	0.07
Crit Moves:	****			****			****		****		****	
Green/Cycle:	0.45	0.45	0.45	0.00	0.10	0.40	0.30	0.30	0.75	0.07	0.07	0.07
Volume/Cap:	1.11	0.08	0.08	0.00	1.11	0.34	0.38	0.38	1.11	1.11	1.11	1.11
Uniform Del:	38.4	21.9	21.9	0.0	63.0	29.3	39.0	39.0	17.6	65.4	65.4	65.4
IncrementDel:	55.8	0.0	0.0	0.0	80.3	0.3	0.5	0.5	56.5	114.9	115	114.9
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	94.2	21.9	21.9	0.0	143	29.6	39.4	39.4	74.1	180.3	180	180.3
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:	94.2	21.9	21.9	0.0	143	29.6	39.4	39.4	74.1	180.3	180	180.3
LOS by Move:	F	C	C	A	F	C	D	D	E	F	F	F
HCM2kAvgQ:	52	1	1	0	15	6	7	7	74	10	10	10

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 US 101 NB Ramps & Marsh Rd.
Cycle (sec): 65 Critical Vol./Cap. (X): 1.116
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 48.1
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Permitted), Rights (Include, Ignore), and Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM
Base Vol: 493 0 213 0 0 0 0 2063 507 0 682 791
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 562 0 243 0 0 0 0 2352 578 0 777 902
Added Vol: 0 0 160 0 0 0 0 3 149 0 0 864 360
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 562 0 403 0 0 0 0 3 2501 578 0 1641 1262
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Volume: 562 0 403 0 0 0 0 3 2501 0 0 1641 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 562 0 403 0 0 0 0 3 2501 0 0 1641 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 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
FinalVolume: 562 0 403 0 0 0 0 3 2501 0 0 1641 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.00 0.83 1.00 1.00 1.00 0.89 0.89 1.00 1.00 0.93 1.00
Lanes: 2.00 0.00 1.00 0.00 0.00 0.00 0.01 1.99 1.00 0.00 2.00 1.00
Final Sat.: 3432 0 1583 0 0 0 4 3375 1900 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.16 0.00 0.25 0.00 0.00 0.00 0.74 0.74 0.00 0.00 0.46 0.00
Crit Moves: ****
Green/Cycle: 0.23 0.00 0.23 0.00 0.00 0.00 0.66 0.66 0.00 0.00 0.66 0.00
Volume/Cap: 0.72 0.00 1.12 0.00 0.00 0.00 1.12 1.12 0.00 0.00 0.70 0.00
Uniform Del: 23.2 0.0 25.1 0.0 0.0 0.0 10.9 10.9 0.0 0.0 6.8 0.0
IncrementDel: 3.2 0.0 82.5 0.0 0.0 0.0 58.9 58.9 0.0 0.0 0.9 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 26.4 0.0 107.5 0.0 0.0 0.0 69.8 69.8 0.0 0.0 7.8 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 26.4 0.0 107.5 0.0 0.0 0.0 69.8 69.8 0.0 0.0 7.8 0.0
LOS by Move: C A F A A A E E A A A A
HCM2kAvgQ: 7 0 17 0 0 0 48 48 0 0 12 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 US 101 SB Ramps & Marsh Rd.
Cycle (sec): 65 Critical Vol./Cap. (X): 1.029
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 40.6
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Permitted), Rights (Include, Ignore), and Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM
Base Vol: 0 0 0 1355 0 453 0 1181 651 0 940 282
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 0 0 0 1545 0 516 0 1346 742 0 1072 321
Added Vol: 0 0 0 79 0 17 0 109 0 0 504 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 1624 0 533 0 1455 742 0 1576 321
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Volume: 0 0 0 1624 0 533 0 1455 0 0 1576 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 1624 0 533 0 1455 0 0 1576 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 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
FinalVolume: 0 0 0 1624 0 533 0 1455 0 0 1576 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.90 1.00 0.83 1.00 0.93 1.00 1.00 0.93 1.00
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 0.00 2.00 1.00 0.00 2.00 1.00
Final Sat.: 0 0 0 3432 0 1583 0 3538 1900 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.47 0.00 0.34 0.00 0.41 0.00 0.00 0.45 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.46 0.00 0.46 0.00 0.43 0.00 0.00 0.43 0.00
Volume/Cap: 0.00 0.00 0.00 1.03 0.00 0.73 0.00 0.95 0.00 0.00 1.03 0.00
Uniform Del: 0.0 0.0 0.0 17.6 0.0 14.3 0.0 17.8 0.0 0.0 18.4 0.0
IncrementDel: 0.0 0.0 0.0 30.5 0.0 3.9 0.0 13.1 0.0 0.0 30.9 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 0.0 0.0 0.0 48.1 0.0 18.2 0.0 30.9 0.0 0.0 49.3 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 48.1 0.0 18.2 0.0 30.9 0.0 0.0 49.3 0.0
LOS by Move: A A A D A B A C A A D A
HCM2kAvgQ: 0 0 0 27 0 10 0 21 0 0 27 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.936
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 27.4
Optimal Cycle: 105 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include, Include, Include), Min. Green (4, 4, 4, 4), Lanes (0, 1, 0, 0, 2, 0, 1, 0, 0, 1, 1, 0, 2, 1, 0, 2, 0, 1, 1, 0)

Volume Module: >> Count Date: 4 Nov 2009 << 4:45 - 5:45 PM
Base Vol: 28 15 267 254 9 2 42 1314 17 78 1109 214
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 32 17 304 290 10 2 48 1498 19 89 1264 244
Added Vol: 0 0 0 0 0 0 0 0 111 0 0 521 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 32 17 304 290 10 2 48 1609 19 89 1785 244
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: 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 Volume: 32 17 304 290 10 2 48 1609 19 89 1785 244
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 32 17 304 290 10 2 48 1609 19 89 1785 244
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: 32 17 304 290 10 2 48 1609 19 89 1785 244

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 0.73 0.93 0.93 0.83 0.93 0.89 0.89 0.90 0.91 0.91
Lanes: 0.65 0.35 2.00 0.97 0.03 1.00 1.00 2.96 0.04 2.00 1.76 0.24
Final Sat.: 1174 629 2786 1716 61 1583 1769 5013 60 3432 3056 418

Capacity Analysis Module:
Vol/Sat: 0.03 0.03 0.11 0.17 0.17 0.00 0.03 0.32 0.32 0.03 0.58 0.58
Crit Moves: ****
Green/Cycle: 0.11 0.11 0.11 0.18 0.18 0.18 0.05 0.57 0.57 0.09 0.61 0.61
Volume/Cap: 0.24 0.24 0.96 0.96 0.96 0.01 0.54 0.56 0.56 0.29 0.96 0.96
Uniform Del: 32.3 32.3 35.2 32.7 32.7 27.2 37.1 10.9 10.9 34.1 14.6 14.6
IncrementDel: 0.6 0.6 39.2 39.5 39.5 0.0 6.7 0.3 0.3 0.5 11.3 11.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 32.9 32.9 74.4 72.2 72.2 27.2 43.8 11.1 11.1 34.6 26.0 26.0
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: 32.9 32.9 74.4 72.2 72.2 27.2 43.8 11.1 11.1 34.6 26.0 26.0
LOS by Move: C C E E E C D B B C C C
HCM2kAvgQ: 1 1 8 12 12 0 2 10 10 1 31 31

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.819
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 23.4
Optimal Cycle: 52 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include, Include, Include), Min. Green (4, 4, 4, 4), Lanes (1, 0, 0, 1, 0, 1, 1, 0, 0, 1, 1, 0, 1, 0, 2, 0, 1)

Volume Module: >> Count Date: 7 Oct 2009 << 4:30 - 5:30 pm
Base Vol: 95 32 58 428 30 128 239 885 55 26 833 316
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 108 36 66 488 34 146 272 1009 63 30 950 360
Added Vol: 0 0 0 0 0 0 0 0 111 0 0 521 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 108 36 66 488 34 146 272 1120 63 30 1471 360
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: 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 Volume: 108 36 66 488 34 146 272 1120 63 30 1471 360
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 108 36 66 488 34 146 272 1120 63 30 1471 360
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: 108 36 66 488 34 146 272 1120 63 30 1471 360

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.88 0.88 0.94 0.94 0.83 0.93 0.92 0.92 0.93 0.93 0.83
Lanes: 1.00 0.36 0.64 1.87 0.13 1.00 1.00 1.89 0.11 1.00 2.00 1.00
Final Sat.: 1769 598 1084 3323 233 1583 1769 3323 186 1769 3538 1583

Capacity Analysis Module:
Vol/Sat: 0.06 0.06 0.06 0.15 0.15 0.09 0.15 0.34 0.34 0.02 0.42 0.23
Crit Moves: ****
Green/Cycle: 0.07 0.07 0.07 0.18 0.18 0.18 0.19 0.61 0.61 0.09 0.51 0.51
Volume/Cap: 0.82 0.82 0.82 0.82 0.82 0.51 0.82 0.56 0.56 0.19 0.82 0.45
Uniform Del: 36.5 36.5 36.5 31.6 31.6 29.7 31.2 9.4 9.4 33.7 16.6 12.5
IncrementDel: 31.5 32.2 32.2 8.2 8.2 1.6 14.7 0.3 0.3 0.6 3.1 0.4
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 67.9 68.7 68.7 39.8 39.8 31.3 45.9 9.7 9.7 34.3 19.7 12.9
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: 67.9 68.7 68.7 39.8 39.8 31.3 45.9 9.7 9.7 34.3 19.7 12.9
LOS by Move: E E E D D C D A A C B B
HCM2kAvgQ: 5 5 5 9 9 4 9 9 9 1 18 6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Bay Rd. & Marsh Rd.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.697
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.3
Optimal Cycle: 34 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Permitted, Protected), Rights (Include, Ovl), Min. Green, Lanes.

Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 57 8 180 55 31 3 5 819 90 200 891 47
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 65 9 205 63 35 3 6 934 103 228 1016 54
Added Vol: 2 0 0 0 0 0 0 0 111 2 0 521 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 67 9 205 63 35 3 6 1045 105 228 1537 54
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: 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 Volume: 67 9 205 63 35 3 6 1045 105 228 1537 54
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 67 9 205 63 35 3 6 1045 105 228 1537 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: 67 9 205 63 35 3 6 1045 105 228 1537 54

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.81 0.81 0.81 0.65 0.65 0.65 0.87 0.87 0.87 0.93 0.93 0.93
Lanes: 0.24 0.03 0.73 0.62 0.35 0.03 0.01 1.81 0.18 1.00 1.93 0.07
Final Sat.: 365 50 1119 761 429 42 16 2988 299 1769 3402 119

Capacity Analysis Module:
Vol/Sat: 0.18 0.18 0.18 0.08 0.08 0.08 0.35 0.35 0.35 0.13 0.45 0.45
Crit Moves: ****
Green/Cycle: 0.26 0.26 0.26 0.26 0.26 0.26 0.50 0.50 0.50 0.19 0.69 0.69
Volume/Cap: 0.70 0.70 0.70 0.31 0.31 0.31 0.70 0.70 0.70 0.69 0.66 0.66
Uniform Del: 26.7 26.7 26.7 23.8 23.8 23.8 15.2 15.2 15.2 30.5 7.1 7.1
IncrementDel: 5.5 5.5 5.5 0.6 0.6 0.6 1.3 1.3 1.3 6.3 0.7 0.7
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 32.2 32.2 32.2 24.3 24.3 24.3 16.5 16.5 16.5 36.8 7.8 7.8
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: 32.2 32.2 32.2 24.3 24.3 24.3 16.5 16.5 16.5 36.8 7.8 7.8
LOS by Move: C C C C C C B B B D A A
HCM2kAvgQ: 8 8 8 2 2 2 12 12 12 7 12 12

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Middlefield at Marsh (Town of Atherton)
Cycle (sec): 110 Critical Vol./Cap. (X): 1.062
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 54.6
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Protected), Rights (Include, Ovl), Min. Green, Lanes.

Volume Module: >> Count Date: 18 Nov 2009 << 5:00 - 6:00 p.m.
Base Vol: 0 426 548 408 269 0 0 0 0 515 0 447
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 0 486 625 465 307 0 0 0 0 587 0 510
Added Vol: 0 58 74 38 11 0 0 0 0 136 0 387
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 544 699 503 318 0 0 0 0 723 0 897
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: 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 Volume: 0 544 699 503 318 0 0 0 0 723 0 897
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 544 699 503 318 0 0 0 0 723 0 897
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: 0 544 699 503 318 0 0 0 0 723 0 897

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 0.85 0.95 1.00 1.00 1.00 1.00 1.00 0.95 1.00 0.85
Lanes: 0.00 1.00 1.00 1.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Final Sat.: 0 1900 1615 1805 1900 0 0 0 0 1805 0 1615

Capacity Analysis Module:
Vol/Sat: 0.00 0.29 0.43 0.28 0.17 0.00 0.00 0.00 0.00 0.40 0.00 0.56
Crit Moves: ****
Green/Cycle: 0.00 0.27 0.65 0.26 0.53 0.00 0.00 0.00 0.00 0.38 0.00 0.64
Volume/Cap: 0.00 1.06 0.67 1.06 0.31 0.00 0.00 0.00 0.00 1.06 0.00 0.87
Uniform Del: 0.0 40.2 12.1 40.6 14.5 0.0 0.0 0.0 0.0 34.3 0.0 16.1
IncrementDel: 0.0 57.3 1.7 58.8 0.2 0.0 0.0 0.0 0.0 52.1 0.0 8.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Delay/Veh: 0.0 97.4 13.8 99.4 14.7 0.0 0.0 0.0 0.0 86.4 0.0 24.0
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 97.4 13.8 99.4 14.7 0.0 0.0 0.0 0.0 86.4 0.0 24.0
LOS by Move: A F B F B A A A A F A C
HCM2kAvgQ: 0 27 15 25 6 0 0 0 0 35 0 27

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.314
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 146.8
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Split Phase), and Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 4:45 - 5:45 PM
Base Vol: 362 664 1 0 2199 108 36 13 1424 44 105 8
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.03 0.83 0.90 1.03 0.83 0.91 0.91 0.88 0.93 0.93 0.83

Capacity Analysis Module:
Vol/Sat: 0.24 0.18 0.00 0.01 0.49 0.24 0.04 0.04 0.50 0.21 0.14 0.12
Crit Moves: ****
Green/Cycle: 0.18 0.45 0.61 0.10 0.37 0.37 0.20 0.20 0.38 0.16 0.16 0.26

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.890
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 28.1
Optimal Cycle: 112 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Permitted, Protected), and Lanes.

Volume Module: >> Count Date: 7 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 129 6 49 73 5 73 130 1351 5 20 553 67
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.59 0.59 0.59 0.73 0.73 0.73 0.93 0.93 0.93 0.93 0.93 0.93

Capacity Analysis Module:
Vol/Sat: 0.19 0.19 0.19 0.13 0.13 0.13 0.09 0.49 0.49 0.01 0.53 0.53
Crit Moves: ****
Green/Cycle: 0.21 0.21 0.21 0.21 0.21 0.21 0.10 0.64 0.64 0.06 0.60 0.60

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.863
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 17.4
Optimal Cycle: 99 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 5 0 5 5 5 0 0 5 5
Lanes: 0 0 0 0 0 0 0 1 0 0 1 0 2 0 0 0 0 0 1 1 0

Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 0 0 0 10 0 122 98 1457 0 0 800 22
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 0 0 0 11 0 139 112 1661 0 0 912 25
Added Vol: 0 0 0 21 0 10 10 169 0 0 1015 159
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 32 0 149 122 1830 0 0 1927 184
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: 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 Volume: 0 0 0 32 0 149 122 1830 0 0 1927 184
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 32 0 149 122 1830 0 0 1927 184
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 0 0 32 0 149 122 1830 0 0 1927 184

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.86 1.00 0.86 0.93 0.93 1.00 1.00 0.92 0.92
Lanes: 0.00 0.00 0.00 0.18 0.00 0.82 1.00 2.00 0.00 0.00 1.83 0.17
Final Sat.: 0 0 0 293 0 1348 1769 3538 0 0 3187 304

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.11 0.00 0.11 0.07 0.52 0.00 0.00 0.60 0.60
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.13 0.00 0.13 0.08 0.78 0.00 0.00 0.70 0.70
Volume/Cap: 0.00 0.00 0.00 0.86 0.00 0.86 0.86 0.66 0.00 0.00 0.86 0.86
Uniform Del: 0.0 0.0 0.0 51.3 0.0 51.3 54.6 6.0 0.0 0.0 13.6 13.6
IncrementDel: 0.0 0.0 0.0 28.7 0.0 28.7 38.6 0.6 0.0 0.0 3.4 3.4
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Delay/Veh: 0.0 0.0 0.0 80.0 0.0 80.0 93.2 6.6 0.0 0.0 17.1 17.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 80.0 0.0 80.0 93.2 6.6 0.0 0.0 17.1 17.1
LOS by Move: A A A F A F F A A A B B
HCM2kAvgQ: 0 0 0 9 0 9 7 17 0 0 33 33

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.704
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 9.9
Optimal Cycle: 59 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 0 5 0 0 0 0 5 5 5 5 0
Lanes: 1 0 1 0 0 0 0 0 0 0 0 0 2 0 1 1 0 2 0 0

Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 120 0 35 0 0 0 0 1413 204 73 888 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 137 0 40 0 0 0 0 1611 233 83 1012 0
Added Vol: 4 0 0 0 0 0 0 179 11 0 1025 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 141 0 40 0 0 0 0 1790 244 83 2037 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: 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 Volume: 141 0 40 0 0 0 0 1790 244 83 2037 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 141 0 40 0 0 0 0 1790 244 83 2037 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: 141 0 40 0 0 0 0 1790 244 83 2037 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.91 1.00 0.91 1.00 1.00 1.00 1.00 0.93 0.83 0.93 0.93 1.00
Lanes: 1.64 0.00 0.36 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 2841 0 627 0 0 0 0 3538 1583 1769 3538 0

Capacity Analysis Module:
Vol/Sat: 0.05 0.00 0.06 0.00 0.00 0.00 0.00 0.51 0.15 0.05 0.58 0.00
Crit Moves: ****
Green/Cycle: 0.09 0.00 0.09 0.00 0.00 0.00 0.00 0.75 0.75 0.07 0.82 0.00
Volume/Cap: 0.55 0.00 0.70 0.00 0.00 0.00 0.00 0.68 0.21 0.68 0.70 0.00
Uniform Del: 52.2 0.0 53.0 0.0 0.0 0.0 0.0 7.7 4.5 54.5 4.7 0.0
IncrementDel: 2.0 0.0 8.6 0.0 0.0 0.0 0.0 0.7 0.1 14.0 0.8 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00 0.00
Delay/Veh: 54.2 0.0 61.6 0.0 0.0 0.0 0.0 8.4 4.6 68.5 5.5 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 54.2 0.0 61.6 0.0 0.0 0.0 0.0 8.4 4.6 68.5 5.5 0.0
LOS by Move: D A E A A A A A A E A A
HCM2kAvgQ: 4 0 5 0 0 0 0 18 3 4 18 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 1.172
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 77.2
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Ovl, Include), Min. Green (5, 5, 5, 5), Lanes (2, 0, 1, 0, 1, 1, 0, 2, 1, 0, 1, 0, 1, 1, 0)

Volume Module: >> Count Date: 7 Oct 2009 << 4:45 - 5:45 PM
Base Vol: 248 170 55 38 166 219 323 1436 339 102 975 34
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 283 194 63 43 189 250 368 1637 386 116 1112 39
Added Vol: 0 0 0 0 0 0 9 7 190 0 0 1029 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 283 194 63 43 189 259 375 1827 386 116 2141 39
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: 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 Volume: 283 194 63 43 189 259 375 1827 386 116 2141 39
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 283 194 63 43 189 259 375 1827 386 116 2141 39
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: 283 194 63 43 189 259 375 1827 386 116 2141 39

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.98 0.83 0.93 0.98 0.83 0.93 0.87 0.87 0.93 0.93 0.93
Lanes: 2.00 1.00 1.00 1.00 1.00 1.00 1.00 2.48 0.52 1.00 1.96 0.04
Final Sat.: 3432 1862 1583 1769 1862 1583 1769 4087 864 1769 3464 63

Capacity Analysis Module:
Vol/Sat: 0.08 0.10 0.04 0.02 0.10 0.16 0.21 0.45 0.45 0.07 0.62 0.62
Crit Moves: ****
Green/Cycle: 0.09 0.09 0.18 0.09 0.09 0.27 0.18 0.62 0.62 0.09 0.53 0.53
Volume/Cap: 0.93 1.17 0.22 0.28 1.17 0.61 1.17 0.72 0.72 0.72 1.17 1.17
Uniform Del: 54.3 54.7 42.1 51.3 54.8 38.5 49.1 15.9 15.9 53.1 28.4 28.4
IncrementDel: 33.3 124 0.4 1.0 125 2.6 105.7 0.9 0.9 15.1 83.7 83.7
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 87.6 179 42.5 52.3 180 41.1 154.8 16.8 16.8 68.2 112 112.1
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: 87.6 179 42.5 52.3 180 41.1 154.8 16.8 16.8 68.2 112 112.1
LOS by Move: F F D D F D F B B E F F
HCM2kAvgQ: 8 13 2 2 13 9 24 21 21 6 65 65

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.879
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 24.2
Optimal Cycle: 94 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Include), Min. Green (0, 0, 0, 5, 5, 5, 0, 0, 5, 5), Lanes (0, 0, 0, 0, 0, 1, 0, 0, 0, 1, 1, 0, 2, 0, 0, 0, 0, 0, 2, 0, 1)

Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 0 0 0 416 0 54 40 1436 0 0 1061 255
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 0 0 0 474 0 62 46 1637 0 0 1210 291
Added Vol: 0 0 0 4 0 0 0 136 0 0 266 7
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 478 0 62 46 1773 0 0 1476 298
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: 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 Volume: 0 0 0 478 0 62 46 1773 0 0 1476 298
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 478 0 62 46 1773 0 0 1476 298
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 0 0 478 0 62 46 1773 0 0 1476 298

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.93 1.00 0.83 0.93 0.93 1.00 1.00 0.93 0.83
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 0 0 0 1769 0 1583 1769 3538 0 0 3538 1583

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.27 0.00 0.04 0.03 0.50 0.00 0.00 0.42 0.19
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.31 0.00 0.31 0.07 0.57 0.00 0.00 0.50 0.50
Volume/Cap: 0.00 0.00 0.00 0.88 0.00 0.13 0.38 0.88 0.00 0.00 0.83 0.37
Uniform Del: 0.0 0.0 0.0 29.6 0.0 22.4 40.2 16.7 0.0 0.0 19.1 13.7
IncrementDel: 0.0 0.0 0.0 15.2 0.0 0.1 2.1 4.8 0.0 0.0 3.4 0.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Delay/Veh: 0.0 0.0 0.0 44.7 0.0 22.6 42.3 21.5 0.0 0.0 22.5 14.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 44.7 0.0 22.6 42.3 21.5 0.0 0.0 22.5 14.0
LOS by Move: A A A D A C D C A A C B
HCM2kAvgQ: 0 0 0 16 0 1 2 26 0 0 21 5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.893
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 21.8
Optimal Cycle: 95 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Permitted, Protected), Rights (Include, Include, Include).

Table with 12 columns: Volume Module, Count, Date, and 10 time slots. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat. Rows include Sat/Lane, Adjustment, Lanes, Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.910
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 18.0
Optimal Cycle: 105 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Permitted, Protected), Rights (Include, Include, Include).

Table with 12 columns: Volume Module, Count, Date, and 10 time slots. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat. Rows include Sat/Lane, Adjustment, Lanes, Final Sat.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.847
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 14.6
Optimal Cycle: 75 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Permitted), Rights (Include), Min. Green (5), Lanes (1 0 0 1 0)

Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 92 31 75 29 30 4 4 969 36 37 832 17
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 105 35 85 33 34 5 5 1105 41 42 948 19
Added Vol: 18 0 8 0 0 0 0 0 128 22 32 234 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 123 35 93 33 34 5 5 1233 63 74 1182 19
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 123 35 93 33 34 5 5 1233 63 74 1182 19
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 123 35 93 33 34 5 5 1233 63 74 1182 19
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: 123 35 94 33 34 5 5 1233 63 74 1182 19

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.72 0.87 0.87 0.44 0.96 0.96 0.15 0.97 0.97 0.11 0.98 0.98
Lanes: 1.00 0.27 0.73 1.00 0.88 0.12 1.00 0.95 0.05 1.00 0.98 0.02
Final Sat.: 1370 455 1204 827 1613 215 289 1759 90 214 1828 30

Capacity Analysis Module:
Vol/Sat: 0.09 0.08 0.08 0.04 0.02 0.02 0.02 0.70 0.70 0.35 0.65 0.65
Crit Moves: ****
Green/Cycle: 0.11 0.11 0.11 0.11 0.11 0.11 0.83 0.83 0.83 0.83 0.83 0.83
Volume/Cap: 0.85 0.73 0.73 0.38 0.20 0.20 0.02 0.85 0.85 0.42 0.78 0.78
Uniform Del: 46.1 45.5 45.5 43.7 42.9 42.9 1.6 5.2 5.2 2.4 4.4 4.4
IncrementDel: 34.5 14.7 14.7 2.7 0.5 0.5 0.0 4.6 4.6 1.6 2.7 2.7
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 80.6 60.2 60.2 46.4 43.4 43.4 1.6 9.8 9.8 4.0 7.1 7.1
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: 80.6 60.2 60.2 46.4 43.4 43.4 1.6 9.8 9.8 4.0 7.1 7.1
LOS by Move: F E E D D D A A A A A A
HCM2kAvgQ: 6 6 6 1 1 1 0 27 27 1 20 20

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.543
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 215.7
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Split Phase), Rights (Include), Min. Green (8), Lanes (1 0 2 0 1)

Volume Module: >> Count Date: 30 Sep 2009 << 4:45 - 5:45 PM
Base Vol: 97 438 491 477 413 19 36 170 158 382 95 410
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 111 499 560 544 471 22 41 194 180 435 108 467
Added Vol: 15 8 34 82 8 0 0 34 24 128 37 86
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 126 507 594 626 479 22 41 228 204 563 145 553
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: 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 Volume: 126 507 594 626 479 22 41 228 204 563 145 553
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 126 507 594 626 479 22 41 228 204 563 145 553
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: 126 507 594 626 479 22 41 228 204 563 145 553

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.93 0.42 0.90 0.90 0.90 0.93 0.98 0.83 0.94 0.94 0.83
Lanes: 1.00 2.00 1.00 1.67 1.27 0.06 1.00 1.00 1.00 1.59 0.41 1.00
Final Sat.: 1769 3538 791 2860 2189 99 1769 1862 1583 2848 734 1583

Capacity Analysis Module:
Vol/Sat: 0.07 0.14 0.75 0.22 0.22 0.22 0.02 0.12 0.13 0.20 0.20 0.35
Crit Moves: ****
Green/Cycle: 0.49 0.49 0.49 0.14 0.14 0.14 0.08 0.08 0.08 0.23 0.23 0.23
Volume/Cap: 0.15 0.29 1.54 1.54 1.54 1.54 0.28 1.46 1.54 0.87 0.87 1.54
Uniform Del: 18.5 20.0 33.4 55.8 55.8 55.8 55.9 59.6 59.6 48.5 48.5 50.3
IncrementDel: 0.1 0.1 256.8 251.0 251 251.0 1.0 240 278.1 10.3 10.3 257.7
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 18.5 20.1 290.2 306.8 307 306.8 56.9 300 337.7 58.7 58.7 308.0
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: 18.5 20.1 290.2 306.8 307 306.8 56.9 300 337.7 58.7 58.7 308.0
LOS by Move: B C F F F F E F F E E F
HCM2kAvgQ: 3 6 50 34 34 34 2 20 19 17 17 47

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 150 Critical Vol./Cap. (X): 1.585
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 251.8
Optimal Cycle: 180 Level Of Service: F

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Table with columns: Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 0.778
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.6
Optimal Cycle: 66 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Table with columns: Volume Module, Count, Date, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap. (X): 0.743
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 17.4
Optimal Cycle: 85 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap. (X): 0.929
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 39.6
Optimal Cycle: 123 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap. (X): 0.780
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 24.7
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Protected, Permitted), Rights (Include, Include, Include).

Volume Module:
Base Vol: 78 109 59 17 76 27 29 1264 78 44 793 17
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 89 124 67 19 87 31 33 1441 89 50 904 19
Added Vol: 0 0 0 0 0 0 0 0 34 0 0 155 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 89 124 67 19 87 31 33 1475 89 50 1059 19
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 89 124 67 19 87 31 33 1475 89 50 1059 19
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 89 124 67 19 87 31 33 1475 89 50 1059 19
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: 89 124 67 19 87 31 33 1475 89 50 1059 19

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 0.95 0.96 0.96 0.96 0.95 0.94 0.94 0.95 0.95 0.95
Lanes: 0.32 0.44 0.24 0.14 0.63 0.23 1.00 1.89 0.11 1.00 1.96 0.04
Final Sat.: 574 802 434 259 1159 412 1805 3374 203 1805 3534 65

Capacity Analysis Module:
Vol/Sat: 0.15 0.15 0.15 0.07 0.07 0.07 0.02 0.44 0.44 0.03 0.30 0.30
Crit Moves: ****
Green/Cycle: 0.20 0.20 0.20 0.09 0.09 0.09 0.09 0.55 0.55 0.05 0.51 0.51
Volume/Cap: 0.79 0.79 0.79 0.79 0.79 0.79 0.21 0.79 0.79 0.56 0.58 0.58
Uniform Del: 38.3 38.3 38.3 44.3 44.3 44.3 42.6 17.9 17.9 46.4 16.8 16.8
IncrementDel: 11.7 11.7 11.7 21.9 21.9 21.9 0.7 2.3 2.3 7.4 0.5 0.5
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 50.0 50.0 50.0 66.2 66.2 66.2 43.2 20.2 20.2 53.9 17.3 17.3
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: 50.0 50.0 50.0 66.2 66.2 66.2 43.2 20.2 20.2 53.9 17.3 17.3
LOS by Move: D D D E E E D C C D B B
HCM2kAvgQ: 10 10 10 6 6 6 1 22 22 2 12 12

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #23 University & Bell

Cycle (sec): 90 Critical Vol./Cap. (X): 0.615
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 8.1
Optimal Cycle: 86 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Permitted, Permitted), Rights (Include, Include, Include).

Volume Module:
Base Vol: 60 83 38 11 68 22 42 1322 87 37 787 22
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 68 95 43 13 78 25 48 1507 99 42 897 25
Added Vol: 0 0 0 0 0 0 0 0 34 0 0 155 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 68 95 43 13 78 25 48 1541 99 42 1052 25
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 68 95 43 13 78 25 48 1541 99 42 1052 25
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 68 95 43 13 78 25 48 1541 99 42 1052 25
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 68 95 43 13 78 25 48 1541 99 42 1052 25

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.84 0.84 0.84 0.94 0.94 0.94 0.23 0.94 0.94 0.11 0.95 0.95
Lanes: 0.33 0.46 0.21 0.11 0.67 0.22 1.00 1.88 0.12 1.00 1.95 0.05
Final Sat.: 528 730 334 195 1205 390 439 3361 216 203 3515 84

Capacity Analysis Module:
Vol/Sat: 0.13 0.13 0.13 0.06 0.06 0.06 0.11 0.46 0.46 0.21 0.30 0.30
Crit Moves: ****
Green/Cycle: 0.21 0.21 0.21 0.21 0.21 0.21 0.74 0.74 0.74 0.74 0.74 0.74
Volume/Cap: 0.62 0.62 0.62 0.31 0.31 0.31 0.15 0.62 0.62 0.28 0.40 0.40
Uniform Del: 32.2 32.2 32.2 30.0 30.0 30.0 3.3 5.4 5.4 3.7 4.2 4.2
IncrementDel: 3.4 3.4 3.4 0.5 0.5 0.5 0.2 0.4 0.4 1.0 0.1 0.1
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 35.6 35.6 35.6 30.4 30.4 30.4 3.5 5.8 5.8 4.7 4.3 4.3
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: 35.6 35.6 35.6 30.4 30.4 30.4 3.5 5.8 5.8 4.7 4.3 4.3
LOS by Move: D D D C C C A A A A A A
HCM2kAvgQ: 6 6 6 3 3 3 1 12 12 1 6 6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap. (X): 0.974
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 46.3
Optimal Cycle: 161 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Protected, Include), Rights (Min. Green, Lanes).

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 12 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ).

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 90 Critical Vol./Cap. (X): 0.537
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 14.4
Optimal Cycle: 82 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L, T, R), Control (Protected, Include), Rights (Min. Green, Lanes).

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with 12 columns: Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with 12 columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue, Note).

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #26 University & SB US 101

Cycle (sec): 90 Critical Vol./Cap. (X): 0.607
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 34.3
Optimal Cycle: 180 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights. Includes lane counts and control types like Permitted, Protected, etc.

Volume Module:

Table with 12 columns for traffic flows and 12 rows for various volume metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 12 columns for traffic flows and 4 rows for saturation flow metrics like Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:

Table with 12 columns for traffic flows and 12 rows for capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #27 University Ave. & Woodland

Cycle (sec): 110 Critical Vol./Cap. (X): 1.000
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 60.1
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights. Includes lane counts and control types like Protected, etc.

Volume Module:

Table with 12 columns for traffic flows and 12 rows for various volume metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 12 columns for traffic flows and 4 rows for saturation flow metrics like Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:

Table with 12 columns for traffic flows and 12 rows for capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.693
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 36.4
Optimal Cycle: 85 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Include), Rights (Min. Green, Lanes).

Volume Module:
Base Vol: 30 377 86 82 384 76 59 328 23 71 442 88
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 34 430 98 93 438 87 67 374 26 81 504 100
Added Vol: 0 41 7 16 117 27 3 40 1 56 24 12
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 34 471 105 109 555 114 70 414 27 137 528 112
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: 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 Volume: 34 471 105 109 555 114 70 414 27 137 528 112
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 34 471 105 109 555 114 70 414 27 137 528 112
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: 34 471 105 109 555 114 70 414 27 137 528 112

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.92 0.92 0.92 0.92 0.92 0.95 0.94 0.94 0.95 0.93 0.93
Lanes: 0.11 1.55 0.34 0.28 1.43 0.29 1.00 1.88 0.12 1.00 1.65 0.35
Final Sat.: 197 2705 604 493 2500 512 1805 3357 221 1805 2899 617

Capacity Analysis Module:
Vol/Sat: 0.17 0.17 0.17 0.22 0.22 0.22 0.04 0.12 0.12 0.08 0.18 0.18
Crit Moves: ****
Green/Cycle: 0.25 0.25 0.25 0.32 0.32 0.32 0.06 0.20 0.20 0.12 0.26 0.26
Volume/Cap: 0.69 0.69 0.69 0.69 0.69 0.69 0.69 0.62 0.62 0.62 0.69 0.69
Uniform Del: 34.0 34.0 34.0 29.7 29.7 29.7 46.3 36.7 36.7 41.8 33.2 33.2
IncrementDel: 2.4 2.4 2.4 1.9 1.9 1.9 18.7 1.8 1.8 5.6 2.3 2.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 36.4 36.4 36.4 31.6 31.6 31.6 65.0 38.5 38.5 47.3 35.5 35.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 36.4 36.4 36.4 31.6 31.6 31.6 65.0 38.5 38.5 47.3 35.5 35.5
LOS by Move: D D D C C C E D D D D D
HCM2kAvgQ: 10 10 10 12 12 12 4 7 7 5 10 10

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.193
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 101.3
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Split Phase, Include), Rights (Min. Green, Lanes).

Volume Module:5:00 - 6:00 AM
Base Vol: 10 932 0 0 2235 16 334 0 76 0 0 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 11 1062 0 0 2548 18 381 0 87 0 0 0
Added Vol: 38 606 0 0 86 0 618 0 86 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 49 1668 0 0 2634 18 999 0 173 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: 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 Volume: 49 1668 0 0 2634 18 999 0 173 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 49 1668 0 0 2634 18 999 0 173 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: 49 1668 0 0 2634 18 999 0 173 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.89 1.00 1.00 0.89 0.83 0.93 1.00 0.83 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.: 1769 5083 0 0 5083 1583 1769 0 1583 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.03 0.33 0.00 0.00 0.52 0.01 0.56 0.00 0.11 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.04 0.47 0.00 0.00 0.43 0.43 0.47 0.00 0.47 0.00 0.00 0.00
Volume/Cap: 0.73 0.71 0.00 0.00 1.21 0.03 1.21 0.00 0.23 0.00 0.00 0.00
Uniform Del: 61.8 27.6 0.0 0.0 37.2 21.6 34.8 0.0 20.9 0.0 0.0 0.0
IncrementDel: 32.1 1.0 0.0 0.0 101 0.0 107.2 0.0 0.2 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00
Delay/Veh: 93.9 28.6 0.0 0.0 138 21.6 141.9 0.0 21.0 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: 93.9 28.6 0.0 0.0 138 21.6 141.9 0.0 21.0 0.0 0.0 0.0
LOS by Move: F C A A F C F A C A A A
HCM2kAvgQ: 3 20 0 0 61 0 63 0 4 0 0 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.782
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 19.0
Optimal Cycle: 68 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.877
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 32.7
Optimal Cycle: 76 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.720
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 30.0
Optimal Cycle: 38 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Permitted), Rights (Include, Include, Include).

Volume Module: >> Count Date: 21 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 49 761 127 356 628 36 75 76 62 73 8 266
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 56 868 145 406 716 41 85 87 71 83 9 303
Added Vol: 0 89 0 2 86 0 0 0 0 0 0 0 5
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 56 957 145 408 802 41 85 87 71 83 9 308
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: 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 Volume: 56 957 145 408 802 41 85 87 71 83 9 308
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 56 957 145 408 802 41 85 87 71 83 9 308
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 56 957 145 408 802 41 86 87 71 83 9 308

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.93 0.83 0.93 0.93 0.83 0.61 0.91 0.91 0.60 0.60 0.83
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.55 0.45 0.90 0.10 1.00
Final Sat.: 1769 3538 1583 1769 3538 1583 1160 957 781 1022 112 1583

Capacity Analysis Module:
Vol/Sat: 0.03 0.27 0.09 0.23 0.23 0.03 0.07 0.09 0.09 0.08 0.08 0.19
Crit Moves: ****
Green/Cycle: 0.09 0.38 0.38 0.32 0.61 0.61 0.27 0.27 0.27 0.27 0.27 0.27
Volume/Cap: 0.35 0.72 0.24 0.72 0.37 0.04 0.27 0.33 0.33 0.30 0.30 0.72
Uniform Del: 51.4 32.1 25.7 36.0 12.0 9.5 34.5 35.1 35.1 34.8 34.8 39.6
IncrementDel: 1.4 1.9 0.2 4.5 0.1 0.0 0.5 0.4 0.4 0.6 0.6 5.9
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 52.8 34.0 26.0 40.5 12.1 9.5 34.9 35.5 35.5 35.3 35.3 45.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 52.8 34.0 26.0 40.5 12.1 9.5 34.9 35.5 35.5 35.3 35.3 45.5
LOS by Move: D C C D B A C D D D D D
HCM2kAvgQ: 2 17 4 14 8 1 3 5 5 3 3 12

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 110 Critical Vol./Cap. (X): 0.870
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 45.8
Optimal Cycle: 98 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Split Phase, Split Phase, Split Phase), Rights (Include, Include, Include).

Volume Module:
Base Vol: 89 457 24 24 508 163 419 135 78 7 55 12
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 101 521 27 27 579 186 478 154 89 8 63 14
Added Vol: 0 57 0 0 160 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 101 578 27 27 739 186 478 154 89 8 63 14
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: 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 Volume: 101 578 27 27 739 186 478 154 89 8 63 14
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 101 578 27 27 739 186 478 154 89 8 63 14
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 101 578 27 27 739 186 478 154 89 8 63 14

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.94 0.94 0.94 0.92 0.92 0.92 0.95 0.95 0.95 0.97 0.97 0.97
Lanes: 0.29 1.63 0.08 0.06 1.55 0.39 1.50 0.32 0.18 0.09 0.75 0.16
Final Sat.: 511 2914 138 101 2718 683 2702 577 333 175 1374 300

Capacity Analysis Module:
Vol/Sat: 0.20 0.20 0.20 0.27 0.27 0.27 0.18 0.27 0.27 0.05 0.05 0.05
Crit Moves: ****
Green/Cycle: 0.23 0.23 0.23 0.31 0.31 0.31 0.31 0.31 0.31 0.05 0.05 0.05
Volume/Cap: 0.87 0.87 0.87 0.87 0.87 0.87 0.58 0.87 0.87 0.87 0.87 0.87
Uniform Del: 40.9 40.9 40.9 35.7 35.7 35.7 32.1 36.1 36.1 51.7 51.7 51.7
IncrementDel: 10.0 10.0 10.0 7.7 7.7 7.7 0.7 9.8 9.8 51.9 51.9 51.9
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 50.9 50.9 50.9 43.4 43.4 43.4 32.8 45.9 45.9 103.7 104 103.7
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: 50.9 50.9 50.9 43.4 43.4 43.4 32.8 45.9 45.9 103.7 104 103.7
LOS by Move: D D D D D D C D D F F F
HCM2kAvgQ: 15 15 15 19 19 19 10 18 18 5 5 5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec): 100 Critical Vol./Cap. (X): 0.965
 Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 43.8
 Optimal Cycle: 151 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	1	0	3	0	0	3	2	0	0	0	0	0

Volume Module:

Base Vol:	0	708	0	0	2307	0	0	0	0	0	0	0
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Initial Bse:	0	807	0	0	2630	0	0	0	0	0	0	0
Added Vol:	66	438	0	0	222	7	242	0	424	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	66	1245	0	0	2852	7	242	0	424	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:	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 Volume:	66	1245	0	0	2852	7	242	0	424	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	1245	0	0	2852	7	242	0	424	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:	66	1245	0	0	2852	7	242	0	424	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	1.00	1.00	0.91	0.85	0.92	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	5187	0	0	5187	1615	3502	0	1615	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.04	0.24	0.00	0.00	0.55	0.00	0.07	0.00	0.26	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.10	0.63	0.00	0.00	0.53	0.53	0.25	0.00	0.25	0.00	0.00	0.00
Volume/Cap:	0.37	0.38	0.00	0.00	1.04	0.01	0.27	0.00	1.04	0.00	0.00	0.00
Uniform Del:	42.0	9.1	0.0	0.0	23.6	11.2	30.0	0.0	37.4	0.0	0.0	0.0
IncrementDel:	1.3	0.1	0.0	0.0	29.2	0.0	0.2	0.0	55.8	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	43.3	9.2	0.0	0.0	52.8	11.2	30.2	0.0	93.2	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:	43.3	9.2	0.0	0.0	52.8	11.2	30.2	0.0	93.2	0.0	0.0	0.0
LOS by Move:	D	A	A	A	D	B	C	A	F	A	A	A
HCM2kAvgQ:	2	7	0	0	43	0	3	0	20	0	0	0

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: Mitigation Near Term 2015 East Campus Only AM

Command: Near Term I Project AM
 Volume: Near Term I Project AM
 Geometry: Near Term I Project AM
 Impact Fee: Default Impact Fee
 Trip Generation: Near Term I Project AM
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Near Term I Project AM

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/	V/	Del/	V/	
	LOS	Veh	LOS	Veh	
# 8 Bayfront Exp. & Willow Rd.	C	25.0 0.566	D	45.1 0.882	+20.082 D/V
# 17 Middlefield Rd. & Willow Rd.	E	72.0 0.789	D	54.1 0.879	-17.878 D/V
# 18 Bayfront Exp. & University Ave	C	28.6 0.757	C	29.7 0.835	+ 1.091 D/V
# 29 Bayfront Exp. & Chrysler Dr.	A	5.7 0.554	B	13.1 0.622	+ 7.317 D/V

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.882
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 45.1
Optimal Cycle: 114 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 traffic flow metrics. Date: 1 Oct 2009. Time: 7:45 - 8:45 AM.

Table with 12 columns: Sat/Lane, Adjustment, Lanes, and Final Sat. for Saturation Flow Module.

Table with 12 columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ for Capacity Analysis Module.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.879
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 54.1
Optimal Cycle: 98 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 traffic flow metrics. Date: 30 Sep 2009. Time: 8:00 - 9:00 AM.

Table with 12 columns: Sat/Lane, Adjustment, Lanes, and Final Sat. for Saturation Flow Module.

Table with 12 columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ for Capacity Analysis Module.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 160 Critical Vol./Cap. (X): 0.835
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 29.7
Optimal Cycle: 92 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 volume categories (Base Vol, Growth Adj, etc.).

Table with 12 columns: Sat/Lane, Adjustment, Lanes, and Final Sat. for Saturation Flow Module.

Table with 12 columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc. for Capacity Analysis Module.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.622
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 13.1
Optimal Cycle: 44 Level Of Service: B

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 volume categories (Base Vol, Growth Adj, etc.).

Table with 12 columns: Sat/Lane, Adjustment, Lanes, and Final Sat. for Saturation Flow Module.

Table with 12 columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc. for Capacity Analysis Module.

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: Mitigation Near Term 2015 East Campus Only PM

Command: Near Term I Project PM
 Volume: Near Term I Project PM
 Geometry: Near Term I Project PM
 Impact Fee: Default Impact Fee
 Trip Generation: Near Term I Project PM
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Near Term I Project PM

Impact Analysis Report
Level Of Service

Intersection		Base		Future		Change in
		Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 8 Bayfront Exp. & Willow Rd.	C	33.0	0.790	D 48.0	0.945	+15.007 D/V
# 17 Middlefield Rd. & Willow Rd.	E	60.9	0.927	E 72.9	1.013	+11.920 D/V
# 18 Bayfront Exp. & University Ave	F	98.0	1.140	F 118.8	1.207	+20.790 D/V
# 19 O'Brien Dr. & University Ave.	B	13.0	0.694	B 13.3	0.705	+ 0.282 D/V
# 29 Bayfront Exp. & Chrysler Dr.	B	15.3	0.654	C 34.1	0.930	+18.790 D/V

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.945
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 48.0
Optimal Cycle: 161 Level Of Service: D

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Split Phase), Rights (Ovl, Include), Min. Green (5, 5, 5, 5), Lanes (2, 0, 3, 0, 1, 2, 0, 3, 0, 1, 1, 1, 1, 0, 3, 2, 0, 2, 0, 1)

Volume Module: >> Count Date: 1 Oct 2009 << 4:45 - 5:45 PM
Base Vol: 362 664 1 0 2199 108 36 13 1424 44 105 8
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 376 691 1 0 2287 112 37 14 1481 46 109 8
Added Vol: 393 257 3 49 171 0 0 94 5 317 391 181
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 769 948 4 49 2458 112 37 108 1486 363 500 189
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: 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 Volume: 769 948 4 49 2458 112 37 108 1486 363 500 189
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 769 948 4 49 2458 112 37 108 1486 363 500 189
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: 769 948 4 49 2458 112 37 108 1486 363 500 189

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.03 0.83 0.90 1.03 0.83 0.92 0.92 0.88 0.90 0.93 0.83
Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 1.00 2.00 3.00 2.00 2.00 1.00
Final Sat.: 3432 5846 1583 3432 5846 1583 1746 3492 5014 3432 3538 1583

Capacity Analysis Module:
Vol/Sat: 0.22 0.16 0.00 0.01 0.42 0.07 0.02 0.03 0.30 0.11 0.14 0.12
Crit Moves: ****
Green/Cycle: 0.24 0.55 0.70 0.13 0.44 0.44 0.08 0.08 0.31 0.15 0.15 0.28
Volume/Cap: 0.95 0.29 0.00 0.11 0.95 0.16 0.28 0.40 0.95 0.71 0.95 0.43
Uniform Del: 48.8 15.6 5.8 49.8 34.6 21.6 56.7 57.2 43.5 52.6 54.8 38.2
IncrementDel: 19.5 0.1 0.0 0.1 8.2 0.1 0.3 0.7 12.1 4.5 26.1 0.7
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 68.3 15.7 5.8 49.9 42.8 21.7 57.0 58.0 55.7 57.1 80.9 38.9
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: 68.3 15.7 5.8 49.9 42.8 21.7 57.0 58.0 55.7 57.1 80.9 38.9
LOS by Move: E B A D D C E E E F D
HCM2kAvgQ: 20 7 0 1 39 3 2 3 26 8 14 6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.013
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 72.9
Optimal Cycle: 180 Level Of Service: E

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase), Rights (Include), Min. Green (8, 8, 8, 8), Lanes (1, 0, 1, 1, 1, 1, 1, 0, 1, 0, 1, 0, 1, 1, 1, 0, 0, 1)

Volume Module: >> Count Date: 30 Sep 2009 << 4:45 - 5:45 PM
Base Vol: 97 438 491 477 413 19 36 170 158 382 95 410
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 101 456 511 496 430 20 37 177 164 397 99 426
Added Vol: 15 8 29 18 8 0 0 32 24 104 21 66
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 116 464 540 514 438 20 37 209 188 501 120 492
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: 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 Volume: 116 464 540 514 438 20 37 209 188 501 120 492
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 116 464 540 514 438 20 37 209 188 501 120 492
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: 116 464 540 514 438 20 37 209 188 501 120 492

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.86 0.43 0.90 0.90 0.90 0.93 0.98 0.83 0.94 0.94 0.83
Lanes: 1.00 1.00 2.00 1.59 1.35 0.06 1.00 1.00 1.00 1.61 0.39 1.00
Final Sat.: 1769 1626 1626 2727 2321 105 1769 1862 1583 2888 690 1583

Capacity Analysis Module:
Vol/Sat: 0.07 0.29 0.33 0.19 0.19 0.19 0.02 0.11 0.12 0.17 0.17 0.31
Crit Moves: ****
Green/Cycle: 0.33 0.33 0.33 0.19 0.19 0.19 0.12 0.12 0.12 0.31 0.31 0.31
Volume/Cap: 0.20 0.87 1.01 1.01 1.01 1.01 0.18 0.95 1.01 0.57 0.57 1.01
Uniform Del: 31.4 41.1 43.7 52.9 52.9 52.9 51.7 57.0 57.4 37.8 37.8 45.0
IncrementDel: 0.2 7.4 31.8 32.3 32.3 32.3 0.4 47.9 69.4 0.7 0.7 44.1
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 31.6 48.4 75.5 85.2 85.2 85.2 52.1 105 126.8 38.4 38.4 89.1
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: 31.6 48.4 75.5 85.2 85.2 85.2 52.1 105 126.8 38.4 38.4 89.1
LOS by Move: C D E F F F D F F D D F
HCM2kAvgQ: 3 21 16 19 19 19 1 12 12 11 11 26

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 150 Critical Vol./Cap. (X): 1.207
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 118.8
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Split Phase), and Rights (Include, Include). Includes Min. Green and Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 377 968 0 0 3488 127 60 0 1667 0 0 0 0
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 392 1007 0 0 3628 132 62 0 1734 0 0 0 0
Added Vol: 4 105 0 0 396 98 12 0 11 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 396 1112 0 0 4024 230 74 0 1745 0 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: 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 Volume: 396 1112 0 0 4024 230 74 0 1745 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 396 1112 0 0 4024 230 74 0 1745 0 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: 396 1112 0 0 4024 230 74 0 1745 0 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.89 1.00 1.00 0.89 0.83 0.90 1.00 0.73 1.00 1.00 1.00 1.00
Lanes: 2.00 3.00 0.00 0.00 4.00 1.00 2.00 0.00 3.00 0.00 0.00 0.00 0.00
Final Sat.: 3432 5083 0 0 6778 1583 3432 0 4178 0 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.12 0.22 0.00 0.00 0.59 0.15 0.02 0.00 0.42 0.00 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.10 0.59 0.00 0.00 0.49 0.49 0.35 0.00 0.35 0.00 0.00 0.00 0.00
Volume/Cap: 1.21 0.37 0.00 0.00 1.21 0.30 0.06 0.00 1.21 0.00 0.00 0.00 0.00
Uniform Del: 67.8 16.3 0.0 0.0 38.1 22.7 32.8 0.0 49.1 0.0 0.0 0.0 0.0
IncrementDel: 118.4 0.1 0.0 0.0 96.2 0.2 0.0 0.0 100.0 0.0 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00 0.00
Delay/Veh: 186.2 16.4 0.0 0.0 134 22.9 32.8 0.0 149.0 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 1.00
AdjDel/Veh: 186.2 16.4 0.0 0.0 134 22.9 32.8 0.0 149.0 0.0 0.0 0.0 0.0
LOS by Move: F B A A F C C A A A
HCM2kAvgQ: 16 10 0 0 75 6 1 0 46 0 0 0 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.930
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 34.1
Optimal Cycle: 138 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Split Phase), and Rights (Include, Include). Includes Min. Green and Lanes.

Volume Module: 5:00 - 6:00 AM
Base Vol: 10 932 0 0 2235 16 334 0 76 0 0 0 0
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 10 969 0 0 2324 17 347 0 79 0 0 0 0
Added Vol: 38 363 0 0 53 0 617 0 86 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 48 1332 0 0 2377 17 964 0 165 0 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: 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 Volume: 48 1332 0 0 2377 17 964 0 165 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 48 1332 0 0 2377 17 964 0 165 0 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: 48 1332 0 0 2377 17 964 0 165 0 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.89 1.00 1.00 0.89 0.83 0.92 1.00 0.92 1.00 1.00 1.00 1.00
Lanes: 1.00 3.00 0.00 0.00 3.00 1.00 1.75 0.00 0.25 0.00 0.00 0.00 0.00
Final Sat.: 1769 5083 0 0 5083 1583 3047 0 445 0 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.03 0.26 0.00 0.00 0.47 0.01 0.32 0.00 0.37 0.00 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.04 0.54 0.00 0.00 0.50 0.50 0.39 0.00 0.39 0.00 0.00 0.00 0.00
Volume/Cap: 0.71 0.49 0.00 0.00 0.94 0.02 0.80 0.00 0.94 0.00 0.00 0.00 0.00
Uniform Del: 61.8 18.9 0.0 0.0 30.8 16.6 34.9 0.0 37.9 0.0 0.0 0.0 0.0
IncrementDel: 29.5 0.1 0.0 0.0 7.8 0.0 3.4 0.0 13.9 0.0 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00 0.00
Delay/Veh: 91.3 19.1 0.0 0.0 38.6 16.6 38.3 0.0 51.8 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 1.00
AdjDel/Veh: 91.3 19.1 0.0 0.0 38.6 16.6 38.3 0.0 51.8 0.0 0.0 0.0 0.0
LOS by Move: F B A A D B D A A A
HCM2kAvgQ: 3 12 0 0 37 0 21 0 29 0 0 0 0

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: Mitigation Near Term 2018 East and West Campuses AM

Command: Near Term II Project AM
 Volume: Near Term II Project AM
 Geometry: Near Term II Project AM
 Impact Fee: Default Impact Fee
 Trip Generation: Near Term II Project AM
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Near Term II Project AM

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/	V/	Del/	V/	
	LOS	Veh	LOS	Veh	
# 1 Bayfront Exp. & Marsh Rd.	C	23.0 0.781	C	26.0 0.853	+ 2.936 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	16.0 0.657	C	32.1 0.979	+16.075 D/V
# 8 Bayfront Exp. & Willow Rd.	C	25.2 0.583	E	56.6 0.973	+31.328 D/V
# 12 Newbridge St. & Willow Rd.	D	42.9 0.754	D	46.5 0.926	+ 3.594 D/V
# 17 Middlefield Rd. & Willow Rd.	E	76.2 0.812	E	59.6 0.936	-16.574 D/V
# 18 Bayfront Exp. & University Ave	C	29.2 0.779	C	32.4 0.890	+ 3.108 D/V
# 29 Bayfront Exp. & Chrysler Dr.	A	5.8 0.570	B	13.0 0.643	+ 7.251 D/V

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.853
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 26.0
Optimal Cycle: 101 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 traffic flow metrics. Includes Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Table with 12 columns: Sat/Lane, Adjustment, Lanes, and Final Sat. for Saturation Flow Module.

Table with 12 columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ for Capacity Analysis Module.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.979
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 32.1
Optimal Cycle: 148 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 traffic flow metrics. Includes Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Table with 12 columns: Sat/Lane, Adjustment, Lanes, and Final Sat. for Saturation Flow Module.

Table with 12 columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ for Capacity Analysis Module.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.973
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 56.6
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 7:45 - 8:45 AM. Table with 12 columns for volume counts and 12 rows for various traffic metrics.

Saturation Flow Module: Table with 12 columns for saturation flow values and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis values and 14 rows for various performance metrics.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.926
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 46.5
Optimal Cycle: 147 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 7 Oct 2009 << 7:30 AM to 8:30 AM. Table with 12 columns for volume counts and 12 rows for various traffic metrics.

Saturation Flow Module: Table with 12 columns for saturation flow values and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis values and 14 rows for various performance metrics.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.936
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 59.6
Optimal Cycle: 141 Level of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Split Phase), Rights (Include), Min. Green, Lanes.

Table with 12 columns: Volume Module, Count, Date, and 11 lanes. Includes rows for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table with 12 columns: Sat/Lane, Adjustment, Lanes, Final Sat. Includes Saturation Flow Module data.

Table with 12 columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 160 Critical Vol./Cap. (X): 0.890
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 32.4
Optimal Cycle: 121 Level of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Split Phase), Rights (Include), Min. Green, Lanes.

Table with 12 columns: Volume Module, Count, Date, and 11 lanes. Includes rows for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table with 12 columns: Sat/Lane, Adjustment, Lanes, Final Sat. Includes Saturation Flow Module data.

Table with 12 columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.643
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 13.0
Optimal Cycle: 46 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Table with 12 columns representing different traffic movements. Rows include Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Table with 12 columns representing different traffic movements. Rows include Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns representing different traffic movements. Rows include Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueuDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: Mitigation Near Term 2018 East and West Campuses PM

Command: Near Term II Project PM
 Volume: Near Term II Project PM
 Geometry: Near Term II Project PM
 Impact Fee: Default Impact Fee
 Trip Generation: Near Term II Project PM
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Near Term II Project PM

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change in
	LOS	Veh	V/ C	LOS	Veh	V/ C	
# 1 Bayfront Exp. & Marsh Rd.	D	49.3	0.974	D	52.4	1.007	+ 3.114 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	14.1	0.872	B	19.2	0.954	+ 5.085 D/V
# 8 Bayfront Exp. & Willow Rd.	C	33.8	0.813	E	55.6	1.000	+21.726 D/V
# 12 Newbridge St. & Willow Rd.	C	31.9	0.724	C	32.4	0.802	+ 0.581 D/V
# 17 Middlefield Rd. & Willow Rd.	E	64.7	0.954	E	78.4	1.042	+13.708 D/V
# 18 Bayfront Exp. & University Ave	F	109.5	1.173	F	136.1	1.258	+26.641 D/V
# 29 Bayfront Exp. & Chrysler Dr.	B	15.6	0.673	D	35.9	0.955	+20.296 D/V

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 140 Critical Vol./Cap. (X): 1.007
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 52.4
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Split Phase, Split Phase, Split Phase, Split Phase), Rights (Include, Ovl, Ovl, Include), Min. Green (5, 5, 5, 5), Lanes (3, 0, 0, 1, 0, 0, 1, 1, 0, 1, 0, 1, 0, 0, 2, 0, 1, 0, 1, 0)

Volume Module: >> Count Date: 22 Oct 2009 << 4:45 - 5:45 PM
Base Vol: 1184 49 7 0 346 186 139 40 1952 31 73 11
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 1267 52 7 0 370 199 149 43 2089 33 78 12
Added Vol: 1222 0 0 0 0 0 0 0 84 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 2489 52 7 0 370 199 149 43 2173 33 78 12
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: 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 Volume: 2489 52 7 0 370 199 149 43 2173 33 78 12
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2489 52 7 0 370 199 149 43 2173 33 78 12
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: 2489 52 7 0 370 199 149 43 2173 33 78 12

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.96 0.96 0.95 0.93 0.83 0.94 0.94 0.73 0.91 0.91 0.91
Lanes: 3.00 0.87 0.13 0.00 2.00 1.00 0.78 0.22 2.00 0.54 1.27 0.19
Final Sat.: 5147 1598 228 0 3538 1583 1392 401 2786 928 2186 329

Capacity Analysis Module:
Vol/Sat: 0.48 0.03 0.03 0.00 0.10 0.13 0.11 0.11 0.78 0.04 0.04 0.04
Crit Moves: ****
Green/Cycle: 0.48 0.48 0.48 0.00 0.10 0.40 0.29 0.29 0.77 0.04 0.04 0.04
Volume/Cap: 1.01 0.07 0.07 0.00 1.01 0.32 0.36 0.36 1.01 1.00 1.00 1.00
Uniform Del: 36.4 19.6 19.6 0.0 62.7 29.0 39.0 39.0 15.8 67.5 67.5 67.5
IncrementDel: 19.8 0.0 0.0 0.0 48.7 0.3 0.4 0.4 21.1 81.4 81.4 81.4
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 56.2 19.6 19.6 0.0 111 29.3 39.4 39.4 36.8 148.9 149 148.9
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: 56.2 19.6 19.6 0.0 111 29.3 39.4 39.4 36.8 148.9 149 148.9
LOS by Move: E B B A F C D D D F F F
HCM2kAvgQ: 44 1 1 0 13 6 6 6 61 5 5 5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap. (X): 0.954
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 19.2
Optimal Cycle: 106 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Split Phase, Split Phase, Permitted, Permitted), Rights (Include, Include, Ignore, Ignore), Min. Green (5, 0, 5, 0, 0, 0, 0, 5, 0, 0, 5, 0), Lanes (2, 0, 0, 0, 2, 0, 0, 0, 0, 0, 0, 1, 1, 0, 1, 0, 0, 2, 0, 1)

Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM
Base Vol: 493 0 213 0 0 0 0 0 2063 507 0 682 791
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 528 0 228 0 0 0 0 0 2207 542 0 730 846
Added Vol: 0 0 160 0 0 0 0 3 146 0 0 862 360
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 528 0 388 0 0 0 3 2353 542 0 1592 1206
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 0.00
PHF 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 0.00
PHF Volume: 528 0 388 0 0 0 3 2353 0 0 1592 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 528 0 388 0 0 0 3 2353 0 0 1592 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 0.00
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 0.00
FinalVolume: 528 0 388 0 0 0 3 2353 0 0 1592 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.00 0.73 1.00 1.00 1.00 0.89 0.89 1.00 1.00 0.93 1.00
Lanes: 2.00 0.00 2.00 0.00 0.00 0.00 0.01 1.99 1.00 0.00 2.00 1.00
Final Sat.: 3432 0 2786 0 0 0 4 3374 1900 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.15 0.00 0.14 0.00 0.00 0.00 0.70 0.70 0.00 0.00 0.45 0.00
Crit Moves: ****
Green/Cycle: 0.16 0.00 0.16 0.00 0.00 0.00 0.73 0.73 0.00 0.00 0.73 0.00
Volume/Cap: 0.95 0.00 0.86 0.00 0.00 0.00 0.95 0.95 0.00 0.00 0.62 0.00
Uniform Del: 27.0 0.0 26.6 0.0 0.0 0.0 7.8 7.8 0.0 0.0 4.3 0.0
IncrementDel: 27.1 0.0 15.9 0.0 0.0 0.0 9.6 9.6 0.0 0.0 0.4 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 54.1 0.0 42.4 0.0 0.0 0.0 17.3 17.3 0.0 0.0 4.7 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 54.1 0.0 42.4 0.0 0.0 0.0 17.3 17.3 0.0 0.0 4.7 0.0
LOS by Move: D A D A A A B B A A A A
HCM2kAvgQ: 10 0 7 0 0 0 29 29 0 0 9 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.000
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 55.6
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 4:45 - 5:45 PM
Base Vol: 362 664 1 0 2199 108 36 13 1424 44 105 8
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.03 0.83 0.90 1.03 0.83 0.91 0.91 0.88 0.90 0.93 0.83

Capacity Analysis Module:
Vol/Sat: 0.23 0.17 0.00 0.01 0.46 0.23 0.04 0.04 0.30 0.11 0.14 0.12
Crit Moves: ****
Green/Cycle: 0.23 0.56 0.70 0.13 0.46 0.46 0.08 0.08 0.30 0.14 0.14 0.27

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.802
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 32.4
Optimal Cycle: 88 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 7 Oct 2009 << 4:45 - 5:45 PM
Base Vol: 248 170 55 38 166 219 323 1436 339 102 975 34
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.98 0.83 0.93 0.98 0.83 0.90 0.87 0.87 0.93 0.89 0.89

Capacity Analysis Module:
Vol/Sat: 0.08 0.10 0.04 0.02 0.10 0.15 0.10 0.41 0.41 0.06 0.41 0.41
Crit Moves: ****
Green/Cycle: 0.12 0.12 0.21 0.12 0.12 0.25 0.13 0.56 0.56 0.08 0.52 0.52

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.042
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 78.4
Optimal Cycle: 180 Level Of Service: E

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 150 Critical Vol./Cap. (X): 1.258
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 136.1
Optimal Cycle: 180 Level Of Service: F

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #29 Bayfront Exp. & Chrysler Dr.

 Cycle (sec): 130 Critical Vol./Cap. (X): 0.955
 Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 35.9
 Optimal Cycle: 168 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0		0	5	5		5	0	5		0	0	0	
Lanes:	1	0	3	0	0	0	3	0	1	1	0	0	0	0	0	0

Volume Module: 5:00 - 6:00 AM

Base Vol:	10	932	0	0	2235	16	334	0	76	0	0	0
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	11	997	0	0	2391	17	357	0	81	0	0	0
Added Vol:	38	605	0	0	84	0	617	0	86	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	49	1602	0	0	2475	17	974	0	167	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:	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 Volume:	49	1602	0	0	2475	17	974	0	167	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	1602	0	0	2475	17	974	0	167	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
Final Volume:	49	1602	0	0	2475	17	974	0	167	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.89	1.00	1.00	0.89	0.83	0.92	1.00	0.92	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	1.74	0.00	0.26	0.00	0.00	0.00
Final Sat.:	1769	5083	0	0	5083	1583	3046	0	446	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.03	0.32	0.00	0.00	0.49	0.01	0.32	0.00	0.37	0.00	0.00	0.00
Crit Moves:	****			****					****			
Green/Cycle:	0.04	0.54	0.00	0.00	0.50	0.50	0.39	0.00	0.39	0.00	0.00	0.00
Volume/Cap:	0.72	0.58	0.00	0.00	0.97	0.02	0.82	0.00	0.97	0.00	0.00	0.00
Uniform Del:	61.8	19.8	0.0	0.0	31.1	16.2	35.8	0.0	38.9	0.0	0.0	0.0
IncrementDel:	30.3	0.3	0.0	0.0	10.9	0.0	4.2	0.0	18.5	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	92.1	20.2	0.0	0.0	42.1	16.2	39.9	0.0	57.4	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:	92.1	20.2	0.0	0.0	42.1	16.2	39.9	0.0	57.4	0.0	0.0	0.0
LOS by Move:	F	C	A	A	D	B	D	A	E	A	A	A
HCM2kAvgQ:	3	16	0	0	40	0	22	0	31	0	0	0

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: Mitigation Cumulative 2025 East Campus Only AM

Command: Long Term Project I AM
 Volume: Long Term Project I AM
 Geometry: Long Term Project I AM
 Impact Fee: Default Impact Fee
 Trip Generation: Long Term Project I AM
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Long Term Project I AM

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh	Del/ LOS	V/ Veh	
# 1 Bayfront Exp. & Marsh Rd.	C	25.2 0.832	C	26.3 0.871	+ 1.107 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	16.7 0.700	C	23.9 0.912	+ 7.194 D/V
# 8 Bayfront Exp. & Willow Rd.	C	25.8 0.621	D	48.6 0.923	+22.825 D/V
# 12 Newbridge St. & Willow Rd.	D	44.6 0.803	D	46.3 0.881	+ 1.619 D/V
# 17 Middlefield Rd. & Willow Rd.	F	87.0 0.865	E	72.2 0.999	-14.726 D/V
# 18 Bayfront Exp. & University Ave	C	31.2 0.829	C	34.1 0.915	+ 2.844 D/V
# 29 Bayfront Exp. & Chrysler Dr.	A	5.9 0.607	B	13.1 0.676	+ 7.189 D/V

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.871
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 26.3
Optimal Cycle: 109 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 traffic flow metrics. Includes Base Vol, Growth Adj, Initial Bse, etc.

Table with 12 columns: Sat/Lane, Adjustment, Lanes, and Final Sat. for Saturation Flow Module.

Table with 12 columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc. for Capacity Analysis Module.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.912
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 23.9
Optimal Cycle: 94 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 traffic flow metrics. Includes Base Vol, Growth Adj, Initial Bse, etc.

Table with 12 columns: Sat/Lane, Adjustment, Lanes, and Final Sat. for Saturation Flow Module.

Table with 12 columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc. for Capacity Analysis Module.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.923
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 48.6
Optimal Cycle: 141 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 1 Oct 2009 << 7:45 - 8:45 AM. Table with 12 columns for volume counts and 12 rows for various traffic metrics.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat., and 4 rows of data.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.881
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 46.3
Optimal Cycle: 120 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 7 Oct 2009 << 7:30 AM to 8:30 AM. Table with 12 columns for volume counts and 12 rows for various traffic metrics.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat., and 4 rows of data.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.999
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 72.2
Optimal Cycle: 180 Level of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module, Count, Date, and 11 columns of traffic volume data for different approaches and movements.

Table with 12 columns: Sat/Lane, Adjustment, Lanes, Final Sat., and 9 columns of saturation flow data.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 160 Critical Vol./Cap. (X): 0.915
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 34.1
Optimal Cycle: 141 Level of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module, Count, Date, and 11 columns of traffic volume data for different approaches and movements.

Table with 12 columns: Sat/Lane, Adjustment, Lanes, Final Sat., and 9 columns of saturation flow data.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.676
 Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 13.1
 Optimal Cycle: 50 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0
Lanes:	1	0	3	0	0	3	1	0	1	0	0	0

Volume Module: >> Count Date: 21 Oct 2009 << 7:15 - 8:15 AM

Base Vol:	45	2362	0	0	1034	31	103	0	6	0	0	0
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Initial Bse:	51	2693	0	0	1179	35	117	0	7	0	0	0
Added Vol:	94	32	0	0	443	0	154	0	21	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	145	2725	0	0	1622	35	271	0	28	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:	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 Volume:	145	2725	0	0	1622	35	271	0	28	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	145	2725	0	0	1622	35	271	0	28	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
Final Volume:	145	2725	0	0	1622	35	271	0	28	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.89	1.00	1.00	0.89	0.83	0.92	1.00	0.92	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	1.83	0.00	0.17	0.00	0.00	0.00
Final Sat.:	1769	5083	0	0	5083	1583	3215	0	299	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.08	0.54	0.00	0.00	0.32	0.02	0.08	0.00	0.09	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.16	0.79	0.00	0.00	0.63	0.63	0.14	0.00	0.14	0.00	0.00	0.00
Volume/Cap:	0.51	0.68	0.00	0.00	0.51	0.04	0.61	0.00	0.68	0.00	0.00	0.00
Uniform Del:	49.7	6.0	0.0	0.0	13.0	9.1	52.8	0.0	53.3	0.0	0.0	0.0
IncrementDel:	1.5	0.5	0.0	0.0	0.1	0.0	2.3	0.0	4.1	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	51.1	6.5	0.0	0.0	13.2	9.1	55.1	0.0	57.4	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:	51.1	6.5	0.0	0.0	13.2	9.1	55.1	0.0	57.4	0.0	0.0	0.0
LOS by Move:	D	A	A	A	B	A	E	A	E	A	A	A
HCM2kAvgQ:	6	18	0	0	13	1	6	0	7	0	0	0

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: Mitigation Cumulative 2025 East Campus Only PM

Command: Long Term Project I PM
 Volume: Long Term Project I PM
 Geometry: Long Term Project I PM
 Impact Fee: Default Impact Fee
 Trip Generation: Long Term Project I PM
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Long Term Project I PM

Impact Analysis Report
Level Of Service

Intersection		Base		Future		Change in
		Del/ LOS	V/ Veh	Del/ LOS	V/ Veh	
# 1 Bayfront Exp. & Marsh Rd.	E	64.8	1.037	E 68.7	1.059	+ 3.901 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	17.7	0.929	C 26.5	1.004	+ 8.822 D/V
# 7 Middlefield at Marsh (Town of	D	39.4	0.922	D 50.6	1.040	+11.151 D/V
# 8 Bayfront Exp. & Willow Rd.	D	36.4	0.866	E 62.7	1.029	+26.369 D/V
# 12 Newbridge St. & Willow Rd.	C	33.2	0.771	C 33.9	0.805	+ 0.730 D/V
# 17 Middlefield Rd. & Willow Rd.	E	75.2	1.016	F 100.7	1.130	+25.424 D/V
# 18 Bayfront Exp. & University Ave	F	136.9	1.250	F 162.1	1.328	+25.154 D/V
# 24 University & Donohoe	D	43.4	0.962	D 45.6	0.973	+ 2.118 D/V
# 29 Bayfront Exp. & Chrysler Dr.	B	16.4	0.717	D 41.3	0.994	+24.945 D/V

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 140 Critical Vol./Cap. (X): 1.059
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 68.7
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Split Phase), Rights (Include, Ovl, Include), Min. Green (5 5 5), Lanes (3 0 0 1 0)

Volume Module: >> Count Date: 22 Oct 2009 << 4:45 - 5:45 PM
Base Vol: 1184 49 7 0 346 186 139 40 1952 31 73 11
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 1350 56 8 0 394 212 158 46 2225 35 83 13
Added Vol: 982 0 0 0 0 0 0 0 55 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 2332 56 8 0 394 212 158 46 2280 35 83 13
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 2332 56 8 0 394 212 158 46 2280 35 83 13
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2332 56 8 0 394 212 158 46 2280 35 83 13
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: 2332 56 8 0 394 212 158 46 2280 35 83 13

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.96 0.96 0.95 0.93 0.83 0.94 0.94 0.73 0.91 0.91 0.91
Lanes: 3.00 0.87 0.13 0.00 2.00 1.00 0.78 0.22 2.00 0.54 1.27 0.19
Final Sat.: 5147 1598 228 0 3538 1583 1392 401 2786 928 2186 329

Capacity Analysis Module:
Vol/Sat: 0.45 0.03 0.03 0.00 0.11 0.13 0.11 0.11 0.82 0.04 0.04 0.04
Crit Moves: ****
Green/Cycle: 0.43 0.43 0.43 0.00 0.11 0.45 0.35 0.35 0.77 0.04 0.04 0.04
Volume/Cap: 1.06 0.08 0.08 0.00 1.06 0.30 0.33 0.33 1.06 1.06 1.06 1.06
Uniform Del: 40.1 23.8 23.8 0.0 62.6 24.4 33.9 33.9 15.9 67.5 67.5 67.5
IncrementDel: 37.0 0.0 0.0 0.0 63.0 0.2 0.3 0.3 37.2 97.6 97.6 97.6
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 77.1 23.8 23.8 0.0 126 24.6 34.2 34.2 53.1 165.0 165 165.0
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: 77.1 23.8 23.8 0.0 126 24.6 34.2 34.2 53.1 165.0 165 165.0
LOS by Move: E C C A F C C C D F F F
HCM2kAvgQ: 44 2 2 0 14 6 6 6 68 6 6 6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap. (X): 1.004
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 26.5
Optimal Cycle: 151 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Split Phase, Permitted, Permitted), Rights (Include, Ignore, Ignore), Min. Green (5 0 5), Lanes (2 0 0 0 2)

Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM
Base Vol: 493 0 213 0 0 0 0 2063 507 0 682 791
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 562 0 243 0 0 0 0 2352 578 0 777 902
Added Vol: 0 0 160 0 0 0 0 3 118 0 0 730 251
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 562 0 403 0 0 0 0 3 2470 578 0 1507 1153
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: 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 Volume: 562 0 403 0 0 0 0 3 2470 0 0 1507 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 562 0 403 0 0 0 0 3 2470 0 0 1507 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: 562 0 403 0 0 0 0 3 2470 0 0 1507 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.00 0.73 1.00 1.00 1.00 0.89 0.89 1.00 1.00 0.93 1.00
Lanes: 2.00 0.00 2.00 0.00 0.00 0.00 0.01 1.99 1.00 0.00 2.00 1.00
Final Sat.: 3432 0 2786 0 0 0 4 3375 1900 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.16 0.00 0.14 0.00 0.00 0.00 0.73 0.73 0.00 0.00 0.43 0.00
Crit Moves: ****
Green/Cycle: 0.16 0.00 0.16 0.00 0.00 0.00 0.73 0.73 0.00 0.00 0.73 0.00
Volume/Cap: 1.00 0.00 0.89 0.00 0.00 0.00 1.00 1.00 0.00 0.00 0.58 0.00
Uniform Del: 27.2 0.0 26.6 0.0 0.0 0.0 8.8 8.8 0.0 0.0 4.2 0.0
IncrementDel: 39.0 0.0 18.5 0.0 0.0 0.0 19.0 19.0 0.0 0.0 0.3 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 66.2 0.0 45.1 0.0 0.0 0.0 27.8 27.8 0.0 0.0 4.5 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 66.2 0.0 45.1 0.0 0.0 0.0 27.8 27.8 0.0 0.0 4.5 0.0
LOS by Move: E A D A A A C C A A A A
HCM2kAvgQ: 11 0 8 0 0 0 37 37 0 0 8 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Middlefield at Marsh (Town of Atherton)
Cycle (sec): 110 Critical Vol./Cap. (X): 1.040
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 50.6
Optimal Cycle: 180 Level Of Service: D

Table with columns: Approach, North Bound, South Bound, East Bound, West Bound, Movement, Control, Rights, Min. Green, Lanes. Rows include Protected, Ovl, Include, and numerical values for each movement.

Table with columns: Volume Module, Count, Date, and various traffic volume metrics like Base Vol, Growth Adj, Initial Bse, etc.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc. for Capacity Analysis Module.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Bayfront Exp. & Willow Rd.
Cycle (sec): 130 Critical Vol./Cap. (X): 1.029
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 62.7
Optimal Cycle: 180 Level Of Service: E

Table with columns: Approach, North Bound, South Bound, East Bound, West Bound, Movement, Control, Rights, Min. Green, Lanes. Rows include Protected, Ovl, Include, Split Phase, and numerical values.

Table with columns: Volume Module, Count, Date, and various traffic volume metrics like Base Vol, Growth Adj, Initial Bse, etc.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, etc. for Capacity Analysis Module.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.805
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 33.9
Optimal Cycle: 89 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Ovl Ovl Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 2 0 1 0 1 1 0 1 0 1 0 1 0 2 1 0 1 0 2 1 0

Volume Module: >> Count Date: 7 Oct 2009 << 4:45 - 5:45 PM
Base Vol: 248 170 55 38 166 219 323 1436 339 102 975 34
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 283 194 63 43 189 250 368 1637 386 116 1112 39
Added Vol: 0 0 0 0 0 0 9 7 152 0 0 713 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 283 194 63 43 189 259 375 1789 386 116 1825 39
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: 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 Volume: 283 194 63 43 189 259 375 1789 386 116 1825 39
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 283 194 63 43 189 259 375 1789 386 116 1825 39
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: 283 194 63 43 189 259 375 1789 386 116 1825 39

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.98 0.83 0.93 0.98 0.83 0.90 0.87 0.87 0.93 0.89 0.89
Lanes: 2.00 1.00 1.00 1.00 1.00 1.00 2.00 2.47 0.53 1.00 2.94 0.06
Final Sat.: 3432 1862 1583 1769 1862 1583 3432 4067 879 1769 4963 105

Capacity Analysis Module:
Vol/Sat: 0.08 0.10 0.04 0.02 0.10 0.16 0.11 0.44 0.44 0.07 0.37 0.37
Crit Moves: ****
Green/Cycle: 0.13 0.13 0.21 0.13 0.13 0.27 0.14 0.55 0.55 0.08 0.48 0.48
Volume/Cap: 0.64 0.81 0.19 0.19 0.81 0.60 0.76 0.81 0.81 0.81 0.76 0.76
Uniform Del: 49.6 50.8 38.9 47.0 51.0 38.2 49.4 22.1 22.1 54.2 25.3 25.3
IncrcmntDel: 3.1 17.7 0.3 0.4 18.1 2.5 6.8 1.9 1.9 27.1 1.4 1.4
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 52.7 68.5 39.2 47.4 69.1 40.7 56.1 23.9 23.9 81.3 26.7 26.7
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: 52.7 68.5 39.2 47.4 69.1 40.7 56.1 23.9 23.9 81.3 26.7 26.7
LOS by Move: D E D D E D E C C F C C
HCM2kAvgQ: 6 9 2 2 9 9 9 25 25 6 21 21

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.130
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 100.7
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 8 8 8 8 8 8 8 8 8 8 8 8
Lanes: 1 0 1 1 1 1 1 0 1 0 1 0 1 1 0 0 1 1 1 0 0 1

Volume Module: >> Count Date: 30 Sep 2009 << 4:45 - 5:45 PM
Base Vol: 97 438 491 477 413 19 36 170 158 382 95 410
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 111 499 560 544 471 22 41 194 180 435 108 467
Added Vol: 15 8 31 82 8 0 0 32 24 105 21 86
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 126 507 591 626 479 22 41 226 204 540 129 553
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: 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 Volume: 126 507 591 626 479 22 41 226 204 540 129 553
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 126 507 591 626 479 22 41 226 204 540 129 553
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: 126 507 591 626 479 22 41 226 204 540 129 553

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.86 0.43 0.90 0.90 0.90 0.93 0.98 0.83 0.94 0.94 0.83
Lanes: 1.00 1.00 2.00 1.67 1.27 0.06 1.00 1.00 1.00 1.61 0.39 1.00
Final Sat.: 1769 1626 1626 2860 2189 99 1769 1862 1583 2888 691 1583

Capacity Analysis Module:
Vol/Sat: 0.07 0.31 0.36 0.22 0.22 0.22 0.02 0.12 0.13 0.19 0.19 0.35
Crit Moves: ****
Green/Cycle: 0.32 0.32 0.32 0.19 0.19 0.19 0.11 0.11 0.11 0.31 0.31 0.31
Volume/Cap: 0.22 0.97 1.13 1.13 1.13 1.13 0.20 1.06 1.13 0.61 0.61 1.13
Uniform Del: 32.2 43.5 44.1 52.4 52.4 52.4 52.2 57.6 57.6 38.1 38.1 44.9
IncrcmntDel: 0.2 20.0 71.8 71.5 71.5 71.5 0.5 79.4 106.3 1.0 1.0 81.6
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 32.4 63.5 115.9 123.9 124 123.9 52.7 137 163.9 39.1 39.1 126.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 32.4 63.5 115.9 123.9 124 123.9 52.7 137 163.9 39.1 39.1 126.5
LOS by Move: C E F F F F D F F D D F
HCM2kAvgQ: 4 26 20 25 25 25 2 14 14 12 12 33

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 150 Critical Vol./Cap. (X): 1.328
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 162.1
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 5 5 0 0 5 5 5 0 5 0 0 0
Lanes: 2 0 3 0 0 0 0 4 0 1 2 0 0 0 3 0 0 0 0 0

Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 377 968 0 0 3488 127 60 0 1667 0 0 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 430 1104 0 0 3976 145 68 0 1900 0 0 0
Added Vol: 9 116 0 0 431 98 12 0 26 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 439 1220 0 0 4407 243 80 0 1926 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: 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 Volume: 439 1220 0 0 4407 243 80 0 1926 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 439 1220 0 0 4407 243 80 0 1926 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: 439 1220 0 0 4407 243 80 0 1926 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.89 1.00 1.00 0.89 0.83 0.90 1.00 0.73 1.00 1.00 1.00
Lanes: 2.00 3.00 0.00 0.00 4.00 1.00 2.00 0.00 3.00 0.00 0.00 0.00
Final Sat.: 3432 5083 0 0 6778 1583 3432 0 4178 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.13 0.24 0.00 0.00 0.65 0.15 0.02 0.00 0.46 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.10 0.59 0.00 0.00 0.49 0.49 0.35 0.00 0.35 0.00 0.00 0.00
Volume/Cap: 1.33 0.41 0.00 0.00 1.33 0.31 0.07 0.00 1.33 0.00 0.00 0.00
Uniform Del: 67.8 16.9 0.0 0.0 38.3 23.1 32.7 0.0 49.0 0.0 0.0 0.0
IncrementDel: 166.9 0.1 0.0 0.0 150 0.2 0.0 0.0 152.3 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00
Delay/Veh: 234.7 17.0 0.0 0.0 188 23.3 32.7 0.0 201.3 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: 234.7 17.0 0.0 0.0 188 23.3 32.7 0.0 201.3 0.0 0.0 0.0
LOS by Move: F B A A F C C A A A
HCM2kAvgQ: 19 11 0 0 91 7 1 0 56 0 0 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap. (X): 0.973
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 45.6
Optimal Cycle: 160 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 1 1 0 1 1 1 0 1 0 1 1 0 2 0 1 1 0

Volume Module:
Base Vol: 315 485 599 32 175 224 217 784 540 115 663 173
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 359 553 683 36 199 255 247 894 616 131 756 197
Added Vol: 8 0 7 0 0 0 0 0 21 0 0 103 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 367 553 690 36 199 255 247 915 616 131 859 197
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: 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 Volume: 367 553 690 36 199 255 247 915 616 131 859 197
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 367 553 690 36 199 255 247 915 616 131 859 197
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: 367 553 690 36 200 255 247 915 616 131 859 197

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.88 0.88 0.88 0.95 1.00 0.85 0.95 0.89 0.89 0.92 0.92 0.92
Lanes: 1.00 1.33 1.67 1.00 1.00 1.00 1.00 1.00 1.20 0.80 2.00 1.63 0.37
Final Sat.: 1671 2230 2783 1805 1900 1615 1805 2028 1365 3502 2854 655

Capacity Analysis Module:
Vol/Sat: 0.22 0.25 0.25 0.02 0.11 0.16 0.14 0.45 0.45 0.04 0.30 0.30
Crit Moves: ****
Green/Cycle: 0.22 0.32 0.32 0.06 0.16 0.16 0.16 0.46 0.46 0.05 0.35 0.35
Volume/Cap: 0.99 0.78 0.78 0.31 0.66 0.99 0.86 0.99 0.99 0.75 0.86 0.86
Uniform Del: 38.7 30.9 30.9 44.7 39.4 41.9 41.0 26.8 26.8 46.9 30.4 30.4
IncrementDel: 19.1 1.9 1.9 1.6 5.1 52.1 22.7 19.7 19.7 16.3 6.6 6.6
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 57.8 32.8 32.8 46.2 44.5 93.9 63.8 46.5 46.5 63.2 37.0 37.0
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: 57.8 32.8 32.8 46.2 44.5 93.9 63.8 46.5 46.5 63.2 37.0 37.0
LOS by Move: E C C D D F E D D E D D
HCM2kAvgQ: 17 14 14 1 7 13 10 32 32 4 19 19

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.994
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 41.3
Optimal Cycle: 180 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 5 5 0 0 5 5 5 0 5 0 0 0
Lanes: 1 0 3 0 0 0 0 3 0 1 1 0 1 0 0 0 0 0 0 0

Volume Module:5:00 - 6:00 AM
Base Vol: 10 932 0 0 2235 16 334 0 76 0 0 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 11 1062 0 0 2548 18 381 0 87 0 0 0
Added Vol: 38 364 0 0 55 0 618 0 86 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 49 1426 0 0 2603 18 999 0 173 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: 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 Volume: 49 1426 0 0 2603 18 999 0 173 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 49 1426 0 0 2603 18 999 0 173 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: 49 1426 0 0 2603 18 999 0 173 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.89 1.00 1.00 0.89 0.83 0.92 1.00 0.92 1.00 1.00 1.00
Lanes: 1.00 3.00 0.00 0.00 3.00 1.00 1.74 0.00 0.26 0.00 0.00 0.00
Final Sat.: 1769 5083 0 0 5083 1583 3044 0 449 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.03 0.28 0.00 0.00 0.51 0.01 0.33 0.00 0.38 0.00 0.00 0.00
Crit Moves: **** **** ****
Green/Cycle: 0.04 0.55 0.00 0.00 0.51 0.51 0.38 0.00 0.38 0.00 0.00 0.00
Volume/Cap: 0.73 0.51 0.00 0.00 1.01 0.02 0.86 0.00 1.01 0.00 0.00 0.00
Uniform Del: 61.8 18.5 0.0 0.0 31.9 15.8 36.8 0.0 40.1 0.0 0.0 0.0
IncremntDel: 32.1 0.2 0.0 0.0 18.9 0.0 5.6 0.0 27.6 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00
Delay/Veh: 93.9 18.6 0.0 0.0 50.8 15.8 42.4 0.0 67.7 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: 93.9 18.6 0.0 0.0 50.8 15.8 42.4 0.0 67.7 0.0 0.0 0.0
LOS by Move: F B A A D B D A E A A A
HCM2kAvgQ: 3 13 0 0 46 0 23 0 34 0 0 0

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: Mitigation Cumulative 2025 East and West Campuses AM

Command: Long Term Project II AM
 Volume: Long Term Project II AM
 Geometry: Long Term Project II AM
 Impact Fee: Default Impact Fee
 Trip Generation: Long Term Project II AM
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Long Term Project II AM

Impact Analysis Report
Level Of Service

Intersection		Base		Future		Change in
		Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Bayfront Exp. & Marsh Rd.	C	25.2	0.832	C 29.0	0.888	+ 3.886 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	16.7	0.700	D 39.6	1.023	+22.922 D/V
# 7 Middlefield at Marsh (Town of	C	27.5	0.564	C 25.5	0.693	-2.004 D/V
# 8 Bayfront Exp. & Willow Rd.	C	25.8	0.621	E 62.4	1.003	+36.585 D/V
# 12 Newbridge St. & Willow Rd.	D	44.6	0.803	D 53.6	0.974	+ 8.985 D/V
# 17 Middlefield Rd. & Willow Rd.	F	87.0	0.865	E 77.0	1.031	-9.987 D/V
# 18 Bayfront Exp. & University Ave	C	31.2	0.829	D 36.9	0.948	+ 5.637 D/V
# 24 University & Donohoe	D	42.0	0.972	D 45.6	1.002	+ 3.625 D/V
# 29 Bayfront Exp. & Chrysler Dr.	A	5.9	0.607	B 13.1	0.681	+ 7.224 D/V

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.888
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 29.0
Optimal Cycle: 118 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Split Phase, Split Phase, Split Phase, Split Phase), Rights (Include, Include, Ovl, Include), Min. Green (5 5 5, 5 5 5, 5 5 5, 5 5 5), Lanes (3 0 0 1 0, 0 1 1 0 1, 0 1 0 0 2, 0 1 0 1 0)

Volume Module: >> Count Date: 22 Oct 2009 << 7:45 - 8:45 AM
Base Vol: 2297 189 23 7 58 148 182 20 997 7 19 5
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 2619 215 26 8 66 169 207 23 1137 8 22 6
Added Vol: 211 0 0 0 0 0 0 0 0 784 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 2830 215 26 8 66 169 207 23 1921 8 22 6
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: 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 Volume: 2830 215 26 8 66 169 207 23 1921 8 22 6
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2830 215 26 8 66 169 207 23 1921 8 22 6
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: 2830 215 26 8 66 169 207 23 1921 8 22 6

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.96 0.96 0.93 0.93 0.83 0.94 0.94 0.73 0.90 0.90 0.90
Lanes: 3.00 0.89 0.11 0.22 1.78 1.00 0.90 0.10 2.00 0.45 1.23 0.32
Final Sat.: 5147 1633 199 379 3141 1583 1606 176 2786 771 2093 551

Capacity Analysis Module:
Vol/Sat: 0.55 0.13 0.13 0.02 0.02 0.11 0.13 0.13 0.69 0.01 0.01 0.01
Crit Moves: ****
Green/Cycle: 0.60 0.60 0.60 0.12 0.12 0.12 0.15 0.15 0.75 0.04 0.04 0.04
Volume/Cap: 0.92 0.22 0.22 0.18 0.18 0.92 0.85 0.85 0.92 0.27 0.27 0.27
Uniform Del: 23.1 12.0 12.0 51.8 51.8 56.8 53.6 53.6 12.8 60.7 60.7 60.7
IncrementDel: 4.9 0.1 0.1 0.2 0.2 43.1 21.1 21.1 6.8 1.1 1.1 1.1
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 27.9 12.1 12.1 52.1 52.1 99.9 74.7 74.7 19.6 61.8 61.8 61.8
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: 27.9 12.1 12.1 52.1 52.1 99.9 74.7 74.7 19.6 61.8 61.8 61.8
LOS by Move: C B B D D F E E B E E E
HCM2kAvgQ: 38 4 4 1 1 10 11 11 38 1 1 1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap. (X): 1.023
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 39.6
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Split Phase, Split Phase, Permitted, Permitted), Rights (Include, Include, Ignore, Ignore), Min. Green (5 0 5, 0 0 0, 0 5 0, 0 5 0), Lanes (2 0 0 0 2, 0 0 0 0 0, 0 1 1 0 1, 0 0 2 0 1)

Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM
Base Vol: 818 0 289 0 0 0 0 1138 506 0 821 1699
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 933 0 329 0 0 0 0 1297 577 0 936 1937
Added Vol: 2 0 394 0 0 0 0 2 934 0 0 164 47
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 935 0 723 0 0 0 0 2 2231 577 0 1100 1984
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: 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 Volume: 935 0 723 0 0 0 0 2 2231 0 0 1100 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 935 0 723 0 0 0 0 2 2231 0 0 1100 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: 935 0 723 0 0 0 0 2 2231 0 0 1100 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.00 0.73 1.00 1.00 1.00 0.89 0.89 1.00 1.00 0.93 1.00
Lanes: 2.00 0.00 2.00 0.00 0.00 0.00 0.01 1.99 1.00 0.00 2.00 1.00
Final Sat.: 3432 0 2786 0 0 0 3 3376 1900 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.27 0.00 0.26 0.00 0.00 0.00 0.66 0.66 0.00 0.00 0.31 0.00
Crit Moves: ****
Green/Cycle: 0.27 0.00 0.27 0.00 0.00 0.00 0.65 0.65 0.00 0.00 0.65 0.00
Volume/Cap: 1.02 0.00 0.98 0.00 0.00 0.00 1.02 1.02 0.00 0.00 0.48 0.00
Uniform Del: 29.4 0.0 29.1 0.0 0.0 0.0 14.1 14.1 0.0 0.0 7.3 0.0
IncrementDel: 35.7 0.0 27.0 0.0 0.0 0.0 25.3 25.3 0.0 0.0 0.2 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 65.0 0.0 56.0 0.0 0.0 0.0 39.4 39.4 0.0 0.0 7.4 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 65.0 0.0 56.0 0.0 0.0 0.0 39.4 39.4 0.0 0.0 7.4 0.0
LOS by Move: E A E A A A D D A A A A
HCM2kAvgQ: 19 0 16 0 0 0 40 40 0 0 8 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Middlefield at Marsh (Town of Atherton)
Cycle (sec): 110
Loss Time (sec): 10 (Y+R=4.0 sec)
Optimal Cycle: 54
Critical Vol./Cap. (X): 0.693
Average Delay (sec/veh): 25.5
Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Table with 12 columns for counts and 12 columns for saturation flow. Rows include Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Bayfront Exp. & Willow Rd.
Cycle (sec): 130
Loss Time (sec): 12 (Y+R=4.0 sec)
Optimal Cycle: 180
Critical Vol./Cap. (X): 1.003
Average Delay (sec/veh): 62.4
Level Of Service: E

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Table with 12 columns for counts and 12 columns for saturation flow. Rows include Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.974
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 53.6
Optimal Cycle: 180 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include

Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 2 0 1 0 1 1 0 1 0 1 0 1 0 2 1 0

Volume Module: >> Count Date: 7 Oct 2009 << 7:30 AM to 8:30 AM

Base Vol: 350 111 36 28 178 384 148 826 155 28 1221 4
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 399 127 41 32 203 438 169 942 177 32 1392 5
Added Vol: 0 0 0 0 0 4 10 1168 0 0 150 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 399 127 41 32 203 442 179 2110 177 32 1542 5
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: 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 Volume: 399 127 41 32 203 442 179 2110 177 32 1542 5
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 399 127 41 32 203 442 179 2110 177 32 1542 5
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: 399 127 41 32 203 442 179 2110 177 32 1542 5

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.98 0.83 0.93 0.98 0.83 0.90 0.88 0.88 0.93 0.89 0.89
Lanes: 2.00 1.00 1.00 1.00 1.00 1.00 2.00 2.77 0.23 1.00 2.99 0.01
Final Sat.: 3432 1862 1583 1769 1862 1583 3432 4634 388 1769 5068 15

Capacity Analysis Module:

Vol/Sat: 0.12 0.07 0.03 0.02 0.11 0.28 0.05 0.46 0.46 0.02 0.30 0.30
Crit Moves: ****
Green/Cycle: 0.12 0.12 0.12 0.28 0.28 0.28 0.07 0.46 0.46 0.04 0.42 0.42
Volume/Cap: 1.00 0.58 0.22 0.06 0.39 1.00 0.72 1.00 1.00 0.47 0.72 0.72
Uniform Del: 57.4 54.4 52.1 34.3 37.8 46.7 59.0 35.2 35.2 61.2 31.1 31.1
IncremntDel: 43.9 4.0 0.6 0.1 0.5 41.7 9.8 17.9 17.9 5.0 1.2 1.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 101.3 58.4 52.7 34.4 38.3 88.4 68.8 53.1 53.1 66.2 32.3 32.3
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: 101.3 58.4 52.7 34.4 38.3 88.4 68.8 53.1 53.1 66.2 32.3 32.3
LOS by Move: F E D C D F E D D E C C
HCM2kAvgQ: 12 6 2 1 7 23 5 40 40 2 19 19

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.031
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 77.0
Optimal Cycle: 180 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Split Phase Split Phase
Rights: Include Include Include Include

Min. Green: 8 8 8 8 8 8 8 8 8 8 8 8
Lanes: 1 0 1 1 1 1 1 0 1 0 1 1 1 1 0 0 1

Volume Module: >> Count Date: 30 Sep 2009 << 8:00 - 9:00 AM

Base Vol: 67 342 245 408 322 10 16 166 117 420 64 494
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 76 390 279 465 367 11 18 189 133 479 73 563
Added Vol: 15 9 146 101 7 0 0 30 10 22 19 80
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 91 399 425 566 374 11 18 219 143 501 92 643
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: 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 Volume: 91 399 425 566 374 11 18 219 143 501 92 643
Reduct Vol: 0 0 3 0 0 0 0 0 0 0 0 0
Reduced Vol: 91 399 422 566 374 11 18 219 143 501 92 643
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: 91 399 422 566 374 11 18 219 143 501 92 643

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.86 0.43 0.90 0.90 0.90 0.93 0.98 0.83 0.94 0.94 0.83
Lanes: 1.00 1.00 2.00 1.78 1.18 0.04 1.00 1.00 1.00 1.69 0.31 1.00
Final Sat.: 1769 1633 1633 3059 2022 62 1769 1862 1583 3017 554 1583

Capacity Analysis Module:

Vol/Sat: 0.05 0.24 0.26 0.19 0.19 0.19 0.01 0.12 0.09 0.17 0.17 0.41
Crit Moves: ****
Green/Cycle: 0.25 0.25 0.25 0.18 0.18 0.18 0.11 0.11 0.11 0.39 0.39 0.39
Volume/Cap: 0.21 0.97 1.03 1.03 1.03 1.03 0.09 1.03 0.79 0.42 0.42 1.03
Uniform Del: 38.5 48.3 48.7 53.3 53.3 53.3 51.5 57.6 56.1 28.6 28.6 39.4
IncremntDel: 0.2 24.7 40.2 37.9 37.9 37.9 0.2 70.1 20.9 0.2 0.2 44.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 38.7 73.0 88.9 91.3 91.3 91.3 51.7 128 77.0 28.8 28.8 83.7
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: 38.7 73.0 88.9 91.3 91.3 91.3 51.7 128 77.0 28.8 28.8 83.7
LOS by Move: D E F F F F D F E C C F
HCM2kAvgQ: 3 22 14 19 19 19 1 14 8 8 8 33

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 160 Critical Vol./Cap. (X): 0.948
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 36.9
Optimal Cycle: 180 Level Of Service: D

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap. (X): 1.002
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 45.6
Optimal Cycle: 180 Level Of Service: D

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap. (X): 0.681
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 13.1
Optimal Cycle: 51 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 13 columns representing different traffic movements. Rows include Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module table with 13 columns for movements. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 13 columns for movements. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: Mitigation Cumulative 2025 East and West Campuses PM

Command: Long Term Project II PM
 Volume: Long Term Project II PM
 Geometry: Long Term Project II PM
 Impact Fee: Default Impact Fee
 Trip Generation: Long Term Project II PM
 Trip Distribution: Near-Term
 Paths: Default Path
 Routes: Default Route
 Configuration: Long Term Project II PM

Impact Analysis Report
Level Of Service

Intersection		Base		Future		Change in
		Del/ LOS	V/ Veh	Del/ LOS	V/ Veh	
# 1 Bayfront Exp. & Marsh Rd.	E	64.8	1.037	E 71.8	1.071	+ 6.972 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	17.7	0.929	C 27.8	1.014	+10.094 D/V
# 7 Middlefield at Marsh (Town of	C	34.7	0.787	D 37.2	0.925	+ 2.546 D/V
# 8 Bayfront Exp. & Willow Rd.	D	36.4	0.866	E 69.1	1.061	+32.712 D/V
# 12 Newbridge St. & Willow Rd.	C	33.2	0.771	C 34.8	0.843	+ 1.637 D/V
# 17 Middlefield Rd. & Willow Rd.	E	75.2	1.016	F 100.8	1.132	+25.574 D/V
# 18 Bayfront Exp. & University Ave	F	136.9	1.250	F 167.8	1.346	+30.810 D/V
# 24 University & Donohoe	D	37.5	0.902	D 39.2	0.914	+ 1.655 D/V
# 29 Bayfront Exp. & Chrysler Dr.	B	16.4	0.717	D 41.7	1.000	+25.305 D/V

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 140 Critical Vol./Cap. (X): 1.071
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 71.8
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 22 Oct 2009 << 4:45 - 5:45 PM
Base Vol: 1184 49 7 0 346 186 139 40 1952 31 73 11
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 1350 56 8 0 394 212 158 46 2225 35 83 13
Added Vol: 1224 0 0 0 0 0 0 0 86 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 2574 56 8 0 394 212 158 46 2311 35 83 13
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 Volume: 2574 56 8 0 394 212 158 46 2311 35 83 13
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2574 56 8 0 394 212 158 46 2311 35 83 13
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: 2574 56 8 0 394 212 158 46 2311 35 83 13

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.96 0.96 0.95 0.93 0.83 0.94 0.94 0.73 0.91 0.91 0.91
Lanes: 3.00 0.87 0.13 0.00 2.00 1.00 0.78 0.22 2.00 0.54 1.27 0.19
Final Sat.: 5147 1598 228 0 3538 1583 1392 401 2786 928 2186 329

Capacity Analysis Module:
Vol/Sat: 0.50 0.03 0.03 0.00 0.11 0.13 0.11 0.11 0.83 0.04 0.04 0.04
Crit Moves: ****
Green/Cycle: 0.47 0.47 0.47 0.00 0.10 0.41 0.31 0.31 0.77 0.04 0.04 0.04
Volume/Cap: 1.07 0.07 0.07 0.00 1.07 0.33 0.37 0.37 1.07 1.07 1.07 1.07
Uniform Del: 37.3 20.6 20.6 0.0 62.7 28.0 37.8 37.8 15.8 67.5 67.5 67.5
IncrementDel: 40.9 0.0 0.0 0.0 67.2 0.3 0.4 0.4 41.7 100.0 100 100.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 78.3 20.7 20.7 0.0 130 28.3 38.3 38.3 57.5 167.5 168 167.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 78.3 20.7 20.7 0.0 130 28.3 38.3 38.3 57.5 167.5 168 167.5
LOS by Move: E C C A F C D D E F F F
HCM2kAvgQ: 49 1 1 0 14 6 7 7 70 6 6 6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap. (X): 1.014
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 27.8
Optimal Cycle: 166 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 sub-columns for Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM
Base Vol: 493 0 213 0 0 0 0 2063 507 0 682 791
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 562 0 243 0 0 0 0 2352 578 0 777 902
Added Vol: 0 0 160 0 0 0 0 3 149 0 0 864 360
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 562 0 403 0 0 0 0 3 2501 578 0 1641 1262
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: 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 Volume: 562 0 403 0 0 0 0 3 2501 0 0 1641 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 562 0 403 0 0 0 0 3 2501 0 0 1641 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: 562 0 403 0 0 0 0 3 2501 0 0 1641 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 1.00 0.73 1.00 1.00 1.00 0.89 0.89 1.00 1.00 0.93 1.00
Lanes: 2.00 0.00 2.00 0.00 0.00 0.00 0.01 1.99 1.00 0.00 2.00 1.00
Final Sat.: 3432 0 2786 0 0 0 4 3375 1900 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.16 0.00 0.14 0.00 0.00 0.00 0.74 0.74 0.00 0.00 0.46 0.00
Crit Moves: ****
Green/Cycle: 0.16 0.00 0.16 0.00 0.00 0.00 0.73 0.73 0.00 0.00 0.73 0.00
Volume/Cap: 1.01 0.00 0.90 0.00 0.00 0.00 1.01 1.01 0.00 0.00 0.63 0.00
Uniform Del: 27.3 0.0 26.7 0.0 0.0 0.0 8.7 8.7 0.0 0.0 4.4 0.0
IncrementDel: 41.8 0.0 20.0 0.0 0.0 0.0 21.7 21.7 0.0 0.0 0.5 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 69.0 0.0 46.7 0.0 0.0 0.0 30.4 30.4 0.0 0.0 4.9 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 69.0 0.0 46.7 0.0 0.0 0.0 30.4 30.4 0.0 0.0 4.9 0.0
LOS by Move: E A D A A A C C A A A A
HCM2kAvgQ: 12 0 8 0 0 0 38 38 0 0 10 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Middlefield at Marsh (Town of Atherton)
Cycle (sec): 110
Loss Time (sec): 10 (Y+R=4.0 sec)
Optimal Cycle: 126
Critical Vol./Cap. (X): 0.925
Average Delay (sec/veh): 37.2
Level Of Service: D

Table with columns: Approach, North Bound, South Bound, East Bound, West Bound, Movement, Control, Rights, Min. Green, Lanes. Rows include Protected, Ovl, Include, and numerical values for each lane.

Table with columns: Volume Module, Count, Date, and 12 lanes. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. Rows include Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Bayfront Exp. & Willow Rd.
Cycle (sec): 130
Loss Time (sec): 12 (Y+R=4.0 sec)
Optimal Cycle: 180
Critical Vol./Cap. (X): 1.061
Average Delay (sec/veh): 69.1
Level Of Service: E

Table with columns: Approach, North Bound, South Bound, East Bound, West Bound, Movement, Control, Rights, Min. Green, Lanes. Rows include Protected, Ovl, Include, Split Phase, and numerical values for each lane.

Table with columns: Volume Module, Count, Date, and 12 lanes. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. Rows include Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.843
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 34.8
Optimal Cycle: 100 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Ovl Ovl Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 2 0 1 0 1 1 0 1 0 1 0 1 0 2 1 0 1 0

Volume Module: >> Count Date: 7 Oct 2009 << 4:45 - 5:45 PM
Base Vol: 248 170 55 38 166 219 323 1436 339 102 975 34
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 283 194 63 43 189 250 368 1637 386 116 1112 39
Added Vol: 0 0 0 0 0 0 9 7 190 0 0 1029 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 283 194 63 43 189 259 375 1827 386 116 2141 39
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: 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 Volume: 283 194 63 43 189 259 375 1827 386 116 2141 39
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 283 194 63 43 189 259 375 1827 386 116 2141 39
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: 283 194 63 43 189 259 375 1827 386 116 2141 39

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.98 0.83 0.93 0.98 0.83 0.90 0.87 0.87 0.93 0.89 0.89
Lanes: 2.00 1.00 1.00 1.00 1.00 1.00 2.00 2.48 0.52 1.00 2.95 0.05
Final Sat.: 3432 1862 1583 1769 1862 1583 3432 4087 864 1769 4978 90

Capacity Analysis Module:
Vol/Sat: 0.08 0.10 0.04 0.02 0.10 0.16 0.11 0.45 0.45 0.07 0.43 0.43
Crit Moves: ****
Green/Cycle: 0.12 0.12 0.21 0.12 0.12 0.25 0.13 0.56 0.56 0.08 0.51 0.51
Volume/Cap: 0.67 0.84 0.19 0.20 0.84 0.65 0.84 0.80 0.80 0.80 0.84 0.84
Uniform Del: 50.2 51.5 39.4 47.6 51.7 40.3 51.0 21.3 21.3 54.1 25.3 25.3
IncrcmntDel: 4.1 23.7 0.3 0.5 24.1 3.9 13.7 1.8 1.8 26.5 2.7 2.7
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 54.3 75.1 39.7 48.1 75.8 44.2 64.7 23.0 23.0 80.6 28.0 28.0
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: 54.3 75.1 39.7 48.1 75.8 44.2 64.7 23.0 23.0 80.6 28.0 28.0
LOS by Move: D E D D E D E C C F C C
HCM2kAvgQ: 6 9 2 2 9 9 9 25 25 6 27 27

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.132
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 100.8
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 8 8 8 8 8 8 8 8 8 8 8 8
Lanes: 1 0 1 1 1 1 1 0 1 0 1 1 1 1 0 0 1 1

Volume Module: >> Count Date: 30 Sep 2009 << 4:45 - 5:45 PM
Base Vol: 97 438 491 477 413 19 36 170 158 382 95 410
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 111 499 560 544 471 22 41 194 180 435 108 467
Added Vol: 15 8 34 82 8 0 0 34 24 128 37 86
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 126 507 594 626 479 22 41 228 204 563 145 553
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: 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 Volume: 126 507 594 626 479 22 41 228 204 563 145 553
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 126 507 594 626 479 22 41 228 204 563 145 553
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: 126 507 594 626 479 22 41 228 204 563 145 553

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.86 0.43 0.90 0.90 0.90 0.93 0.98 0.83 0.94 0.94 0.83
Lanes: 1.00 1.00 2.00 1.67 1.27 0.06 1.00 1.00 1.00 1.59 0.41 1.00
Final Sat.: 1769 1626 1626 2860 2189 99 1769 1862 1583 2848 734 1583

Capacity Analysis Module:
Vol/Sat: 0.07 0.31 0.37 0.22 0.22 0.22 0.02 0.12 0.13 0.20 0.20 0.35
Crit Moves: ****
Green/Cycle: 0.32 0.32 0.32 0.19 0.19 0.19 0.11 0.11 0.11 0.31 0.31 0.31
Volume/Cap: 0.22 0.97 1.13 1.13 1.13 1.13 0.20 1.07 1.13 0.64 0.64 1.13
Uniform Del: 32.1 43.4 44.0 52.4 52.4 52.4 52.2 57.6 57.6 38.7 38.7 44.9
IncrcmntDel: 0.2 19.3 72.5 72.3 72.3 72.3 0.5 82.9 107.1 1.3 1.3 82.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 32.3 62.6 116.6 124.7 125 124.7 52.8 140 164.7 40.0 40.0 127.3
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: 32.3 62.6 116.6 124.7 125 124.7 52.8 140 164.7 40.0 40.0 127.3
LOS by Move: C E F F F F D F F D D F
HCM2kAvgQ: 4 26 20 25 25 25 2 15 14 13 13 33

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 150 Critical Vol./Cap. (X): 1.346
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 167.8
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 5 5 0 0 5 5 5 0 5 0 0 0
Lanes: 2 0 3 0 0 0 0 4 0 1 2 0 0 0 3 0 0 0 0 0

Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM
Base Vol: 377 968 0 0 3488 127 60 0 1667 0 0 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 430 1104 0 0 3976 145 68 0 1900 0 0 0
Added Vol: 9 131 0 0 549 150 19 0 26 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 439 1235 0 0 4525 295 87 0 1926 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: 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 Volume: 439 1235 0 0 4525 295 87 0 1926 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 439 1235 0 0 4525 295 87 0 1926 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: 439 1235 0 0 4525 295 87 0 1926 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.89 1.00 1.00 0.89 0.83 0.90 1.00 0.73 1.00 1.00 1.00
Lanes: 2.00 3.00 0.00 0.00 4.00 1.00 2.00 0.00 3.00 0.00 0.00 0.00
Final Sat.: 3432 5083 0 0 6778 1583 3432 0 4178 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.13 0.24 0.00 0.00 0.67 0.19 0.03 0.00 0.46 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.09 0.59 0.00 0.00 0.50 0.50 0.34 0.00 0.34 0.00 0.00 0.00
Volume/Cap: 1.35 0.41 0.00 0.00 1.35 0.38 0.07 0.00 1.35 0.00 0.00 0.00
Uniform Del: 67.9 16.6 0.0 0.0 37.8 23.4 33.3 0.0 49.3 0.0 0.0 0.0
IncrementDel: 175.0 0.1 0.0 0.0 158 0.3 0.0 0.0 160.6 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00
Delay/Veh: 242.9 16.7 0.0 0.0 196 23.7 33.3 0.0 209.9 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: 242.9 16.7 0.0 0.0 196 23.7 33.3 0.0 209.9 0.0 0.0 0.0
LOS by Move: F B A A F C C A A A
HCM2kAvgQ: 20 11 0 0 95 8 1 0 57 0 0 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap. (X): 0.914
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 39.2
Optimal Cycle: 115 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Ovl Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 1 1 0 1 1 1 0 1 0 1 1 0 2 0 1 1 0

Volume Module:
Base Vol: 315 485 599 32 175 224 217 784 540 115 663 173
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 359 553 683 36 199 255 247 894 616 131 756 197
Added Vol: 8 0 10 0 0 0 0 23 0 0 155 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 367 553 693 36 199 255 247 917 616 131 911 197
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: 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 Volume: 367 553 693 36 199 255 247 917 616 131 911 197
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 367 553 693 36 199 255 247 917 616 131 911 197
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: 367 553 693 36 200 255 247 917 616 131 911 197

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.88 0.88 0.88 0.95 1.00 0.85 0.95 0.89 0.89 0.92 0.92 0.92
Lanes: 1.00 1.33 1.67 1.00 1.00 1.00 1.00 1.20 0.80 2.00 1.64 0.36
Final Sat.: 1671 2225 2788 1805 1900 1615 1805 2030 1363 3502 2887 625

Capacity Analysis Module:
Vol/Sat: 0.22 0.25 0.25 0.02 0.11 0.16 0.14 0.45 0.45 0.04 0.32 0.32
Crit Moves: ****
Green/Cycle: 0.24 0.29 0.29 0.06 0.11 0.28 0.16 0.49 0.49 0.05 0.38 0.38
Volume/Cap: 0.92 0.85 0.85 0.34 0.92 0.57 0.84 0.92 0.92 0.75 0.84 0.84
Uniform Del: 37.2 33.3 33.3 45.2 43.9 31.1 40.6 23.8 23.8 46.9 28.5 28.5
IncrementDel: 8.8 3.8 3.8 1.9 40.7 1.8 18.9 9.2 9.2 16.3 5.0 5.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 46.0 37.2 37.2 47.1 84.6 32.8 59.5 33.0 33.0 63.2 33.5 33.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 46.0 37.2 37.2 47.1 84.6 32.8 59.5 33.0 33.0 63.2 33.5 33.5
LOS by Move: D D D D F C E C C E C C
HCM2kAvgQ: 16 15 15 1 10 7 10 28 28 4 19 19

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap. (X): 1.000
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 41.7
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns representing volume and adjustment factors for each approach and movement. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with 12 columns representing saturation flow factors. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns representing capacity analysis factors. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.