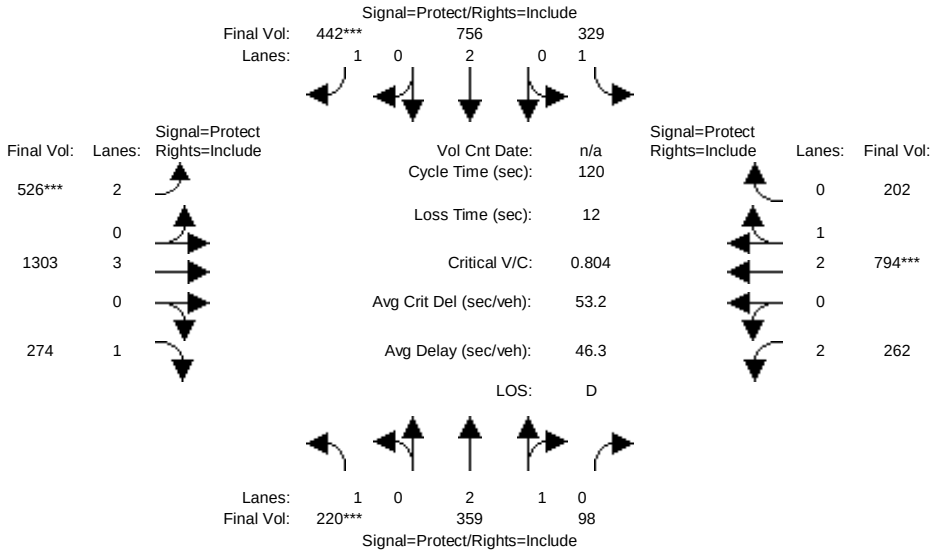
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #34: Wolfe Road/Stevens Creek Boulevard



Street Name:	Wolfe Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	220	359	98	329	756	442	526	1303	274	262	794	202
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	220	359	98	329	756	442	526	1303	274	262	794	202
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:	220	359	98	329	756	442	526	1303	274	262	794	202
User Adj:	1.00	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:	220	359	98	329	756	442	526	1303	274	262	794	202
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	220	359	98	329	756	442	526	1303	274	262	794	202
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	220	359	98	329	756	442	526	1303	274	262	794	202
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	1.00	0.92	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	1.00	2.33	0.67	1.00	2.00	1.00	2.00	3.00	1.00	2.00	2.37	0.63
Final Sat.:	1750	4398	1200	1750	3800	1750	3150	5700	1750	3150	4463	1135
Capacity Analysis Module:												
Vol/Sat:	0.13	0.08	0.08	0.19	0.20	0.25	0.17	0.23	0.16	0.08	0.18	0.18
Crit Moves:	****					****	****				****	
Green Time:	18.8	17.4	17.4	39.1	37.7	37.7	24.9	37.8	37.8	13.7	26.6	26.6
Volume/Cap:	0.80	0.56	0.56	0.58	0.63	0.80	0.80	0.73	0.50	0.73	0.80	0.80
Uniform Del:	48.8	47.8	47.8	33.5	35.2	37.7	45.2	36.5	33.4	51.3	44.2	44.2
IncremntDel:	21.6	2.8	2.8	4.2	2.6	11.8	10.1	2.6	3.2	12.1	5.6	5.6
InitQueuDel:	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	50.6	50.6	37.7	37.8	49.5	55.3	39.1	36.6	63.4	49.8	49.8
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:	70.4	50.6	50.6	37.7	37.8	49.5	55.3	39.1	36.6	63.4	49.8	49.8
LOS by Move:	E	D	D	D+	D+	D	E+	D	D+	E	D	D
HCM2kAvgQ:	265	150	150	275	304	439	302	370	221	179	345	345

Note: Queue reported is the distance per lane in feet.

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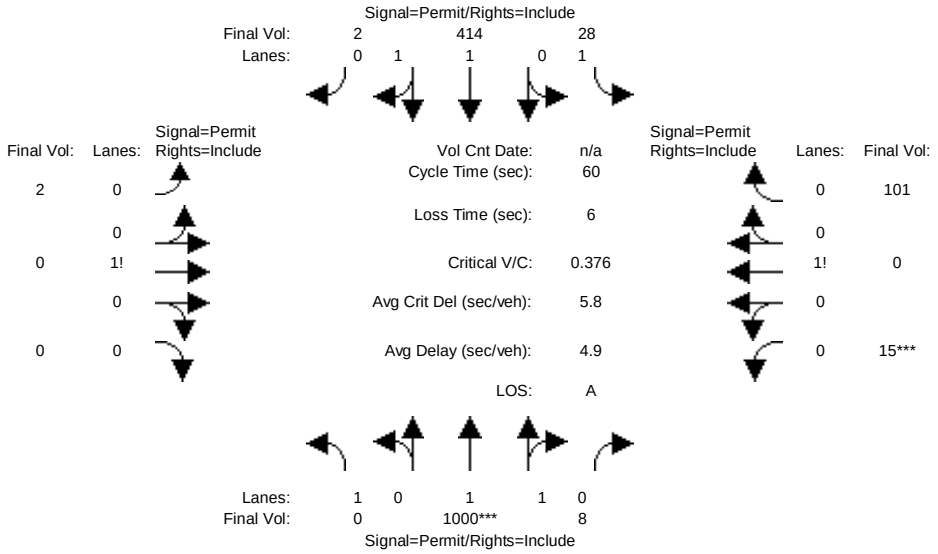
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #35: Miller Avenue/Calle De Barcelona



Street Name:	Miller Avenue						Calle De Barcelona					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	965	8	28	392	2	2	0	0	15	0	101
Growth Adj:	1.00	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	965	8	28	392	2	2	0	0	15	0	101
Added Vol:	0	35	0	0	22	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1000	8	28	414	2	2	0	0	15	0	101
User Adj:	1.00	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	1000	8	28	414	2	2	0	0	15	0	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1000	8	28	414	2	2	0	0	15	0	101
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1000	8	28	414	2	2	0	0	15	0	101
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	1.98	0.02	1.00	1.99	0.01	1.00	0.00	0.00	0.13	0.00	0.87
Final Sat.:	1750	3671	29	1750	3682	18	1750	0	0	226	0	1524
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.27	0.02	0.11	0.11	0.00	0.00	0.00	0.07	0.00	0.07
Crit Moves:		****								****		
Green Time:	0.0	43.4	43.4	43.4	43.4	43.4	10.6	0.0	0.0	10.6	0.0	10.6
Volume/Cap:	0.00	0.38	0.38	0.02	0.16	0.16	0.01	0.00	0.00	0.38	0.00	0.38
Uniform Del:	0.0	3.1	3.1	2.3	2.6	2.6	20.4	0.0	0.0	21.8	0.0	21.8
IncremntDel:	0.0	0.4	0.4	0.0	0.1	0.1	0.0	0.0	0.0	3.5	0.0	3.5
InitQueuDel:	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	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	3.5	3.5	2.4	2.7	2.7	20.4	0.0	0.0	25.3	0.0	25.3
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	3.5	3.5	2.4	2.7	2.7	20.4	0.0	0.0	25.3	0.0	25.3
LOS by Move:	A	A	A	A	A	A	C+	A	A	C	A	C
HCM2kAvgQ:	0	97	97	4	32	32	1	0	0	61	0	61

Note: Queue reported is the distance per lane in feet.

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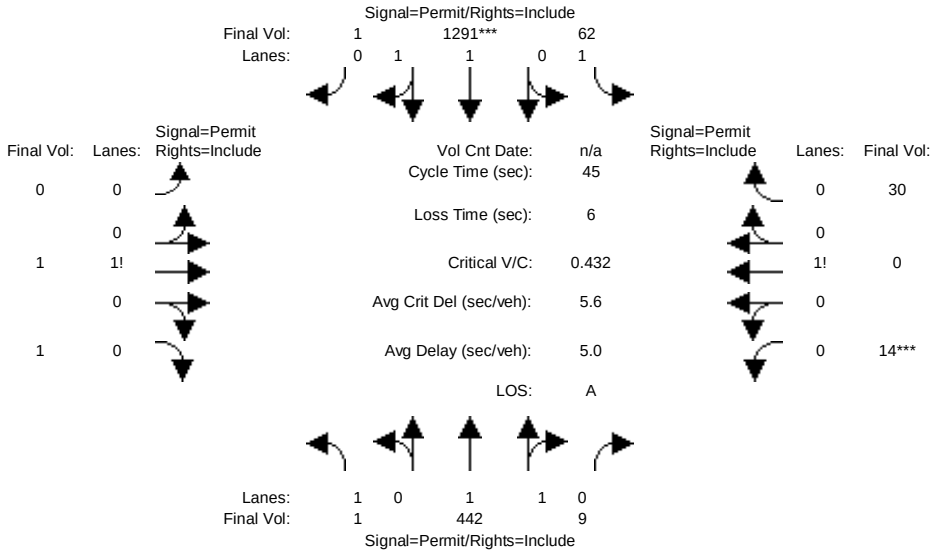
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #35: Miller Avenue/Calle De Barcelona



Street Name:	Miller Avenue						Calle De Barcelona					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	1	321	9	62	1160	1	0	1	1	14	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	321	9	62	1160	1	0	1	1	14	0	30
Added Vol:	0	121	0	0	131	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	442	9	62	1291	1	0	1	1	14	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	442	9	62	1291	1	0	1	1	14	0	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	442	9	62	1291	1	0	1	1	14	0	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:	1	442	9	62	1291	1	0	1	1	14	0	30
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	1.00	1.96	0.04	1.00	1.99	0.01	0.00	0.50	0.50	0.32	0.00	0.68
Final Sat.:	1750	3626	74	1750	3697	3	0	900	900	557	0	1193
Capacity Analysis Module:												
Vol/Sat:	0.00	0.12	0.12	0.04	0.35	0.35	0.00	0.00	0.00	0.03	0.00	0.03
Crit Moves:					****					****		
Green Time:	29.0	29.0	29.0	29.0	29.0	29.0	0.0	10.0	10.0	10.0	0.0	10.0
Volume/Cap:	0.00	0.19	0.19	0.05	0.54	0.54	0.00	0.01	0.01	0.11	0.00	0.11
Uniform Del:	2.8	3.2	3.2	2.9	4.4	4.4	0.0	13.6	13.6	14.0	0.0	14.0
IncremntDel:	0.0	0.2	0.2	0.1	0.9	0.9	0.0	0.0	0.0	0.6	0.0	0.6
InitQueuDel:	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	0.00	1.00	1.00	1.00	0.00	1.00
Delay/Veh:	2.8	3.4	3.4	3.0	5.3	5.3	0.0	13.6	13.6	14.6	0.0	14.6
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:	2.8	3.4	3.4	3.0	5.3	5.3	0.0	13.6	13.6	14.6	0.0	14.6
LOS by Move:	A	A	A	A	A	A	A	B	B	B	A	B
HCM2kAvgQ:	0	35	35	9	142	142	0	1	1	15	0	15

Note: Queue reported is the distance per lane in feet.

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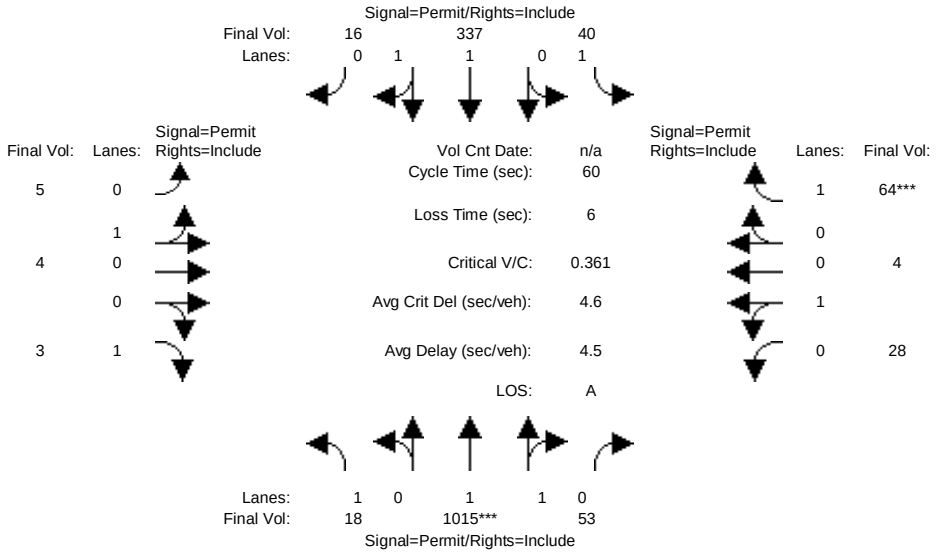
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #36: Miller Avenue/Phil Lane



Street Name:	Miller Avenue						Phil Lane					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	18	980	53	40	315	16	5	4	3	28	4	64
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	980	53	40	315	16	5	4	3	28	4	64
Added Vol:	0	35	0	0	22	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	1015	53	40	337	16	5	4	3	28	4	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:	18	1015	53	40	337	16	5	4	3	28	4	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	1015	53	40	337	16	5	4	3	28	4	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:	18	1015	53	40	337	16	5	4	3	28	4	64
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.97	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.90	0.10	1.00	1.91	0.09	0.56	0.44	1.00	0.87	0.13	1.00
Final Sat.:	1750	3516	184	1750	3532	168	1000	800	1750	1575	225	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.29	0.29	0.02	0.10	0.10	0.01	0.01	0.00	0.02	0.02	0.04
Crit Moves:		****										****
Green Time:	44.0	44.0	44.0	44.0	44.0	44.0	10.0	10.0	10.0	10.0	10.0	10.0
Volume/Cap:	0.01	0.39	0.39	0.03	0.13	0.13	0.03	0.03	0.01	0.11	0.11	0.22
Uniform Del:	2.2	3.0	3.0	2.2	2.4	2.4	20.9	20.9	20.9	21.2	21.2	21.6
IncremntDel:	0.0	0.4	0.4	0.0	0.1	0.1	0.2	0.2	0.1	0.7	0.7	1.7
InitQueuDel:	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:	2.2	3.4	3.4	2.2	2.5	2.5	21.1	21.1	20.9	21.9	21.9	23.4
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:	2.2	3.4	3.4	2.2	2.5	2.5	21.1	21.1	20.9	21.9	21.9	23.4
LOS by Move:	A	A	A	A	A	A	C+	C+	C+	C+	C+	C
HCM2kAvgQ:	3	102	102	6	26	26	4	4	1	15	15	32

Note: Queue reported is the distance per lane in feet.

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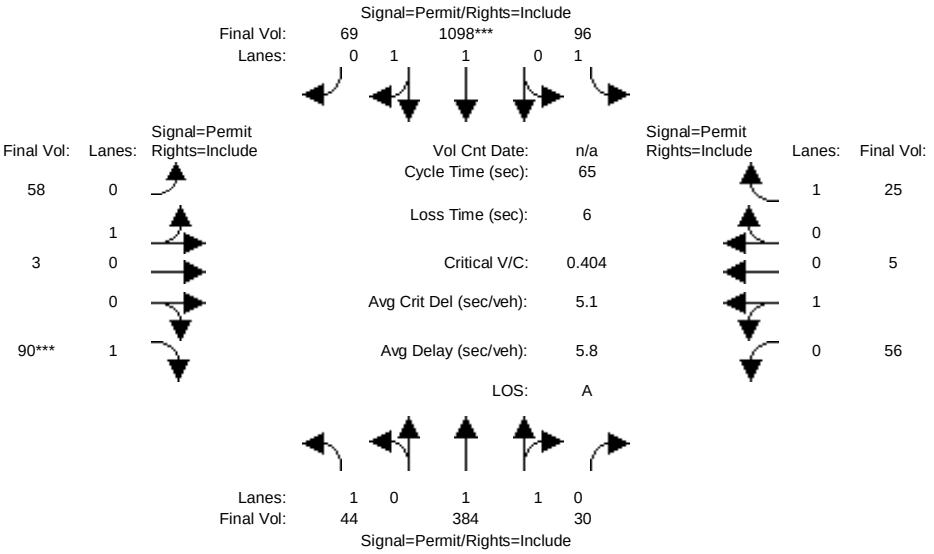
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #36: Miller Avenue/Phil Lane



Street Name:	Miller Avenue						Phil Lane					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	44	263	30	96	967	69	58	3	90	56	5	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	44	263	30	96	967	69	58	3	90	56	5	25
Added Vol:	0	121	0	0	131	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	384	30	96	1098	69	58	3	90	56	5	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:	44	384	30	96	1098	69	58	3	90	56	5	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	384	30	96	1098	69	58	3	90	56	5	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:	44	384	30	96	1098	69	58	3	90	56	5	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.85	0.15	1.00	1.88	0.12	0.95	0.05	1.00	0.92	0.08	1.00
Final Sat.:	1750	3432	268	1750	3481	219	1711	89	1750	1652	148	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.11	0.11	0.05	0.32	0.32	0.03	0.03	0.05	0.03	0.03	0.01
Crit Moves:					****				****			
Green Time:	49.0	49.0	49.0	49.0	49.0	49.0	10.0	10.0	10.0	10.0	10.0	10.0
Volume/Cap:	0.03	0.15	0.15	0.07	0.42	0.42	0.22	0.22	0.33	0.22	0.22	0.09
Uniform Del:	2.0	2.2	2.2	2.1	2.9	2.9	24.1	24.1	24.5	24.1	24.1	23.6
IncremntDel:	0.0	0.1	0.1	0.1	0.5	0.5	1.8	1.8	3.3	1.8	1.8	0.7
InitQueuDel:	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:	2.1	2.3	2.3	2.2	3.3	3.3	25.9	25.9	27.9	25.9	25.9	24.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	2.1	2.3	2.3	2.2	3.3	3.3	25.9	25.9	27.9	25.9	25.9	24.3
LOS by Move:	A	A	A	A	A	A	C	C	C	C	C	C
HCM2kAvgQ:	6	31	31	14	115	115	32	32	52	32	32	13

Note: Queue reported is the distance per lane in feet.

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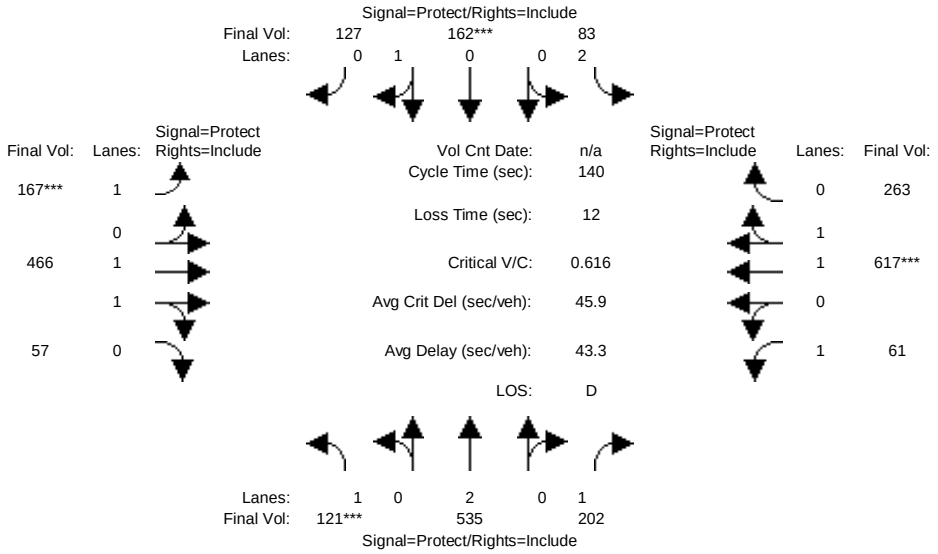
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #37: Miller Avenue/Bollinger Road



Street Name:	Miller Avenue						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	121	514	202	79	149	122	159	466	57	61	617	257
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	121	514	202	79	149	122	159	466	57	61	617	257
Added Vol:	0	21	0	4	13	5	8	0	0	0	0	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	121	535	202	83	162	127	167	466	57	61	617	263
User Adj:	1.00	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:	121	535	202	83	162	127	167	466	57	61	617	263
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	121	535	202	83	162	127	167	466	57	61	617	263
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	121	535	202	83	162	127	167	466	57	61	617	263
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	2.00	1.00	2.00	0.56	0.44	1.00	1.78	0.22	1.00	1.39	0.61
Final Sat.:	1750	3800	1750	3150	1009	791	1750	3296	403	1750	2593	1105
Capacity Analysis Module:												
Vol/Sat:	0.07	0.14	0.12	0.03	0.16	0.16	0.10	0.14	0.14	0.03	0.24	0.24
Crit Moves:	****				****		****				****	
Green Time:	15.7	38.5	38.5	13.7	36.5	36.5	21.7	56.0	56.0	19.8	54.1	54.1
Volume/Cap:	0.62	0.51	0.42	0.27	0.62	0.62	0.62	0.35	0.35	0.25	0.62	0.62
Uniform Del:	59.3	42.8	41.6	58.5	45.6	45.6	55.3	29.4	29.4	53.5	34.6	34.6
IncremntDel:	13.6	1.8	2.7	2.1	5.9	5.9	10.1	0.7	0.7	2.4	2.0	2.0
InitQueuDel:	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:	72.9	44.6	44.2	60.7	51.5	51.5	65.3	30.0	30.0	55.8	36.6	36.6
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:	72.9	44.6	44.2	60.7	51.5	51.5	65.3	30.0	30.0	55.8	36.6	36.6
LOS by Move:	E	D	D	E	D-	D-	E	C	C	E+	D+	D+
HCM2kAvgQ:	157	245	192	54	299	299	201	196	196	65	392	392

Note: Queue reported is the distance per lane in feet.

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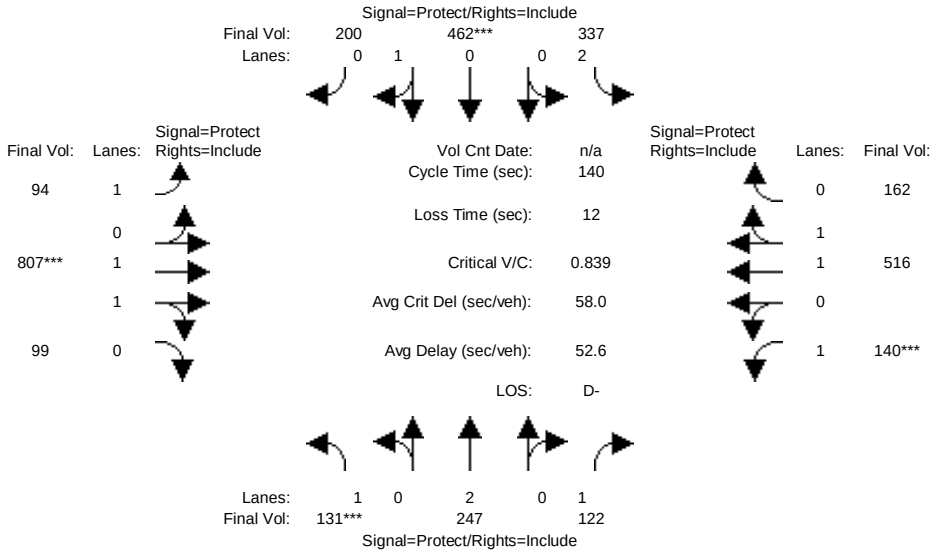
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #37: Miller Avenue/Bollinger Road



Street Name:	Miller Avenue						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	131	175	122	314	384	171	67	807	99	140	516	141
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	131	175	122	314	384	171	67	807	99	140	516	141
Added Vol:	0	72	0	23	78	29	27	0	0	0	0	21
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	131	247	122	337	462	200	94	807	99	140	516	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:	131	247	122	337	462	200	94	807	99	140	516	162
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	131	247	122	337	462	200	94	807	99	140	516	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:	131	247	122	337	462	200	94	807	99	140	516	162
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	2.00	1.00	2.00	0.70	0.30	1.00	1.78	0.22	1.00	1.51	0.49
Final Sat.:	1750	3800	1750	3150	1256	544	1750	3295	404	1750	2815	884
Capacity Analysis Module:												
Vol/Sat:	0.07	0.07	0.07	0.11	0.37	0.37	0.05	0.24	0.24	0.08	0.18	0.18
Crit Moves:	****				****			****			****	
Green Time:	12.5	29.6	29.6	44.3	61.3	61.3	12.3	40.8	40.8	13.3	41.9	41.9
Volume/Cap:	0.84	0.31	0.33	0.34	0.84	0.84	0.61	0.84	0.84	0.84	0.61	0.61
Uniform Del:	62.8	46.6	46.8	36.7	35.0	35.0	61.6	46.5	46.5	62.3	42.1	42.1
IncremntDel:	39.1	1.0	2.4	0.9	10.4	10.4	16.9	7.9	7.9	37.2	2.5	2.5
InitQueuDel:	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:	101.9	47.6	49.2	37.6	45.4	45.4	78.5	54.4	54.4	99.5	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:	101.9	47.6	49.2	37.6	45.4	45.4	78.5	54.4	54.4	99.5	44.6	44.6
LOS by Move:	F	D	D	D+	D	D	E-	D-	D-	F	D	D
HCM2kAvgQ:	207	112	121	164	708	708	129	521	521	218	328	328

Note: Queue reported is the distance per lane in feet.

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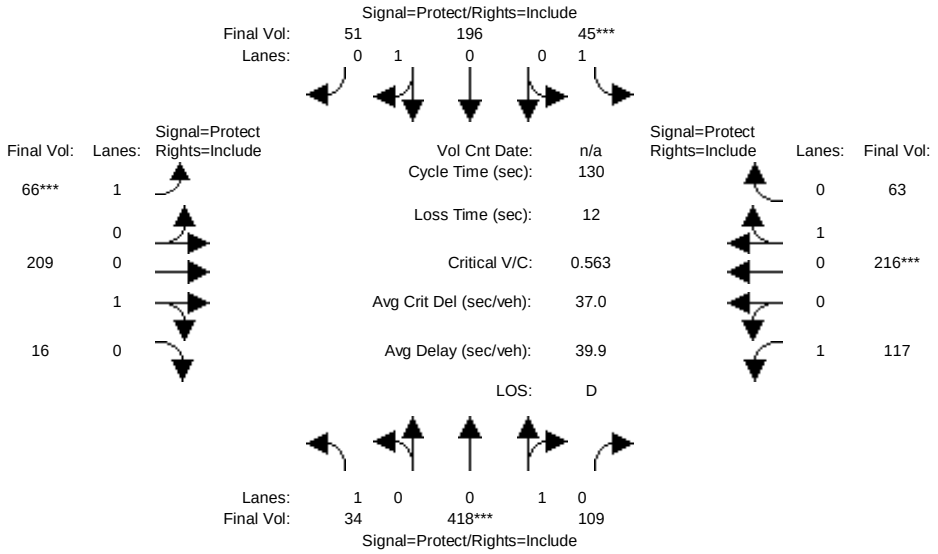
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #38: Miller Avenue/Rainbow Drive



Street Name:	Miller Avenue						Rainbow Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	34	398	109	44	184	51	66	209	16	117	216	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:	34	398	109	44	184	51	66	209	16	117	216	61
Added Vol:	0	20	0	1	12	0	0	0	0	0	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	418	109	45	196	51	66	209	16	117	216	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	418	109	45	196	51	66	209	16	117	216	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	418	109	45	196	51	66	209	16	117	216	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	418	109	45	196	51	66	209	16	117	216	63
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	0.79	0.21	1.00	0.79	0.21	1.00	0.93	0.07	1.00	0.77	0.23
Final Sat.:	1750	1428	372	1750	1428	372	1750	1672	128	1750	1394	406
Capacity Analysis Module:												
Vol/Sat:	0.02	0.29	0.29	0.03	0.14	0.14	0.04	0.13	0.13	0.07	0.16	0.16
Crit Moves:		****		****			****				****	
Green Time:	20.8	66.9	66.9	7.0	53.1	53.1	8.6	28.7	28.7	15.4	35.4	35.4
Volume/Cap:	0.12	0.57	0.57	0.48	0.34	0.34	0.57	0.57	0.57	0.57	0.57	0.57
Uniform Del:	46.7	21.6	21.6	59.7	26.4	26.4	58.9	45.1	45.1	54.2	40.7	40.7
IncremntDel:	0.9	2.5	2.5	16.3	1.2	1.2	18.6	5.7	5.7	10.8	4.7	4.7
InitQueuDel:	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	24.2	24.2	76.1	27.6	27.6	77.5	50.8	50.8	64.9	45.4	45.4
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:	47.6	24.2	24.2	76.1	27.6	27.6	77.5	50.8	50.8	64.9	45.4	45.4
LOS by Move:	D	C	C	E-	C	C	E-	D	D	E	D	D
HCM2kAvgQ:	32	377	377	63	174	174	91	222	222	138	260	260

Note: Queue reported is the distance per lane in feet.

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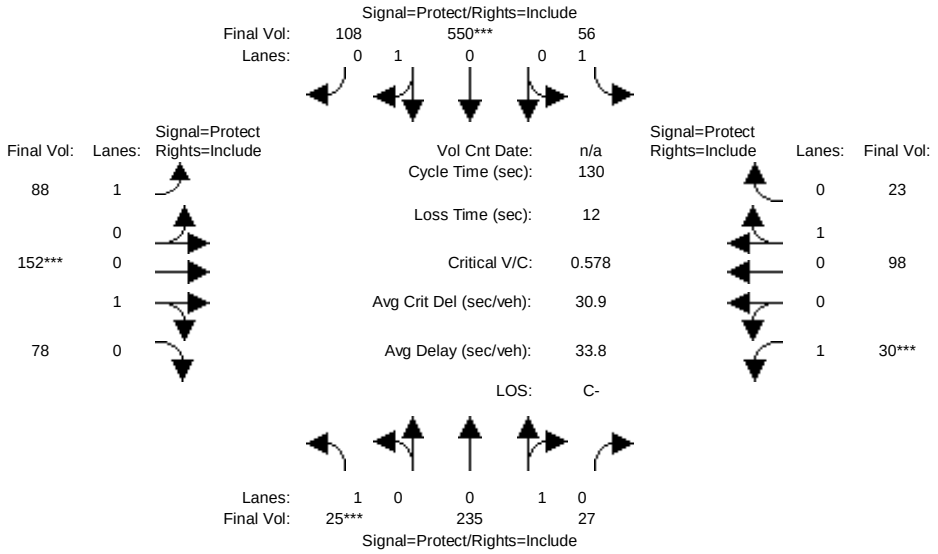
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #38: Miller Avenue/Rainbow Drive



Street Name:	Miller Avenue						Rainbow Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	25	168	27	50	477	108	88	152	78	30	98	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	168	27	50	477	108	88	152	78	30	98	18
Added Vol:	0	67	0	6	73	0	0	0	0	0	0	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	25	235	27	56	550	108	88	152	78	30	98	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:	25	235	27	56	550	108	88	152	78	30	98	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	235	27	56	550	108	88	152	78	30	98	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:	25	235	27	56	550	108	88	152	78	30	98	23
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	0.90	0.10	1.00	0.84	0.16	1.00	0.66	0.34	1.00	0.81	0.19
Final Sat.:	1750	1615	185	1750	1505	295	1750	1190	610	1750	1458	342
Capacity Analysis Module:												
Vol/Sat:	0.01	0.15	0.15	0.03	0.37	0.37	0.05	0.13	0.13	0.02	0.07	0.07
Crit Moves:	****				****			****			****	
Green Time:	7.0	61.4	61.4	22.7	77.1	77.1	14.0	26.9	26.9	7.0	20.0	20.0
Volume/Cap:	0.27	0.31	0.31	0.18	0.62	0.62	0.47	0.62	0.62	0.32	0.44	0.44
Uniform Del:	59.0	21.2	21.2	45.7	17.0	17.0	54.5	46.8	46.8	59.2	49.9	49.9
IncremntDel:	6.8	0.9	0.9	1.3	2.7	2.7	8.1	7.4	7.4	8.7	5.0	5.0
InitQueuDel:	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:	65.8	22.1	22.1	47.1	19.7	19.7	62.7	54.3	54.3	67.9	54.9	54.9
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:	65.8	22.1	22.1	47.1	19.7	19.7	62.7	54.3	54.3	67.9	54.9	54.9
LOS by Move:	E	C+	C+	D	B-	B-	E	D-	D-	E	D-	D-
HCM2kAvgQ:	32	165	165	52	442	442	102	236	236	39	123	123

Note: Queue reported is the distance per lane in feet.

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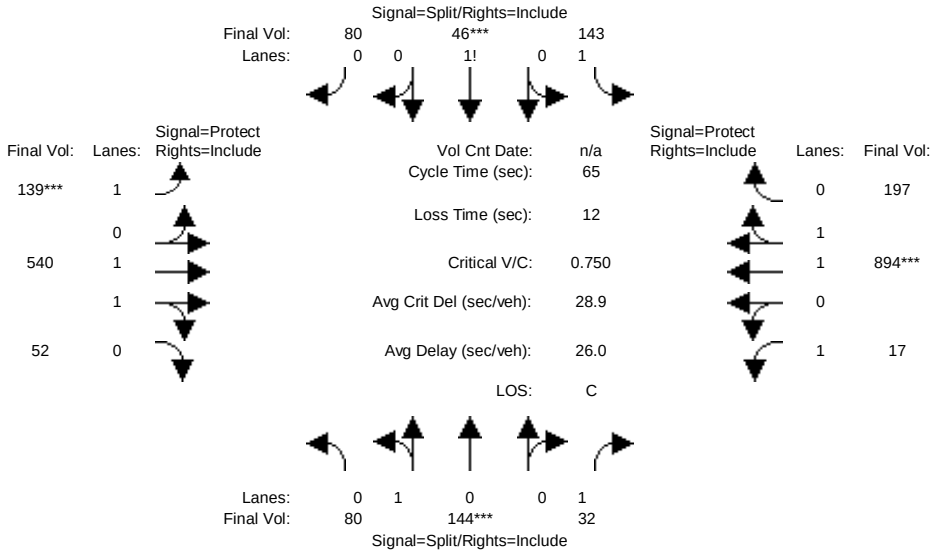
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #39: Miller Avenue/Prospect Road



Street Name:	Miller Avenue						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	80	139	32	140	43	74	130	540	52	17	894	192
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	80	139	32	140	43	74	130	540	52	17	894	192
Added Vol:	0	5	0	3	3	6	9	0	0	0	0	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	80	144	32	143	46	80	139	540	52	17	894	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:	80	144	32	143	46	80	139	540	52	17	894	197
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	144	32	143	46	80	139	540	52	17	894	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:	80	144	32	143	46	80	139	540	52	17	894	197
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	0.36	0.64	1.00	1.36	0.23	0.41	1.00	1.82	0.18	1.00	1.63	0.37
Final Sat.:	643	1157	1750	2384	408	709	1750	3375	325	1750	3031	668
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.02	0.06	0.11	0.11	0.08	0.16	0.16	0.01	0.29	0.29
Crit Moves:		****			****		****				****	
Green Time:	10.7	10.7	10.7	10.0	10.0	10.0	7.0	19.3	19.3	13.0	25.3	25.3
Volume/Cap:	0.76	0.76	0.11	0.39	0.73	0.73	0.74	0.54	0.54	0.05	0.76	0.76
Uniform Del:	25.9	25.9	23.1	24.8	26.2	26.2	28.1	19.1	19.1	21.0	17.2	17.2
IncremntDel:	16.5	16.5	0.8	1.7	12.3	12.3	22.5	1.9	1.9	0.3	3.8	3.8
InitQueuDel:	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:	42.4	42.4	23.9	26.4	38.5	38.5	50.6	21.0	21.0	21.3	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:	42.4	42.4	23.9	26.4	38.5	38.5	50.6	21.0	21.0	21.3	20.9	20.9
LOS by Move:	D	D	C	C	D+	D+	D	C+	C+	C+	C+	C+
HCM2kAvgQ:	164	164	16	62	148	148	119	143	143	8	288	288

Note: Queue reported is the distance per lane in feet.

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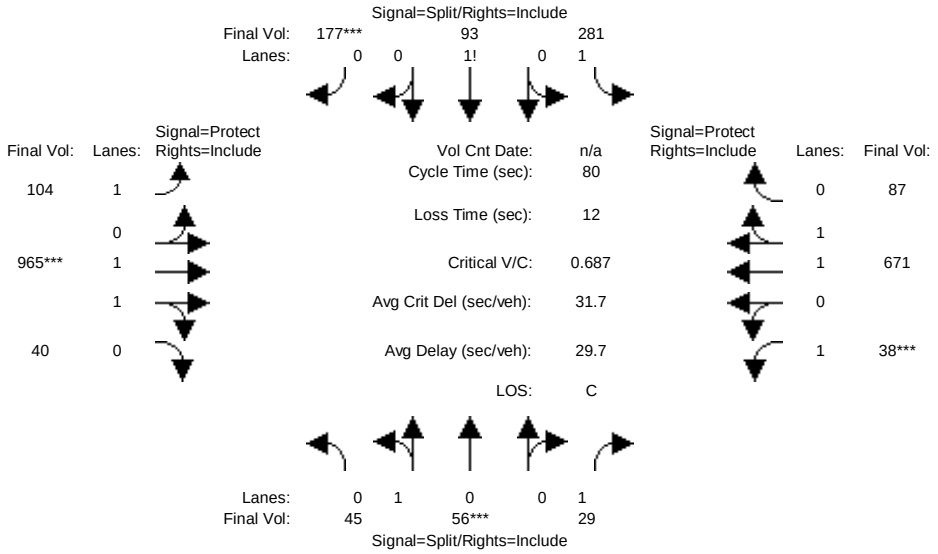
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #39: Miller Avenue/Prospect Road



Street Name:	Miller Avenue						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	45	40	29	261	76	142	72	965	40	38	671	68
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	40	29	261	76	142	72	965	40	38	671	68
Added Vol:	0	16	0	20	17	35	32	0	0	0	0	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	56	29	281	93	177	104	965	40	38	671	87
User Adj:	1.00	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:	45	56	29	281	93	177	104	965	40	38	671	87
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	56	29	281	93	177	104	965	40	38	671	87
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	45	56	29	281	93	177	104	965	40	38	671	87
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.97	0.95	0.92	0.98	0.95
Lanes:	0.45	0.55	1.00	1.34	0.23	0.43	1.00	1.92	0.08	1.00	1.76	0.24
Final Sat.:	802	998	1750	2349	396	755	1750	3553	147	1750	3275	425
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.02	0.12	0.23	0.23	0.06	0.27	0.27	0.02	0.20	0.20
Crit Moves:		****				****		****		****		
Green Time:	10.0	10.0	10.0	23.6	23.6	23.6	10.3	27.4	27.4	7.0	24.1	24.1
Volume/Cap:	0.45	0.45	0.13	0.40	0.79	0.79	0.46	0.79	0.79	0.25	0.68	0.68
Uniform Del:	32.4	32.4	31.1	22.6	25.9	25.9	32.3	23.8	23.8	34.0	24.6	24.6
IncremntDel:	6.4	6.4	1.3	0.9	9.1	9.1	6.7	5.2	5.2	3.8	3.4	3.4
InitQueuDel:	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:	38.8	38.8	32.4	23.5	35.0	35.0	39.0	29.0	29.0	37.9	27.9	27.9
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:	38.8	38.8	32.4	23.5	35.0	35.0	39.0	29.0	29.0	37.9	27.9	27.9
LOS by Move:	D+	D+	C-	C	D+	D+	D+	C	C	D+	C	C
HCM2kAvgQ:	74	74	19	118	307	307	79	340	340	29	239	239

Note: Queue reported is the distance per lane in feet.

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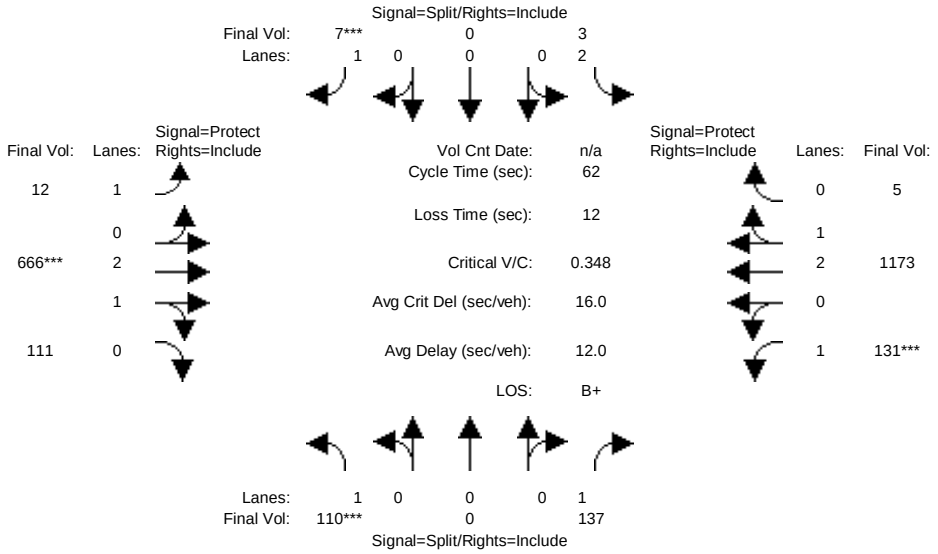
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #40: Stevens Creek Boulevard/Finch Avenue



Street Name:	Finch Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	0	10	0	0	0	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	110	0	137	3	0	7	12	624	111	131	1149	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:	110	0	137	3	0	7	12	624	111	131	1149	5
Added Vol:	0	0	0	0	0	0	0	42	0	0	24	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	110	0	137	3	0	7	12	666	111	131	1173	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:	110	0	137	3	0	7	12	666	111	131	1173	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	110	0	137	3	0	7	12	666	111	131	1173	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:	110	0	137	3	0	7	12	666	111	131	1173	5
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.99	0.95	0.92	0.98	0.95
Lanes:	1.00	0.00	1.00	2.00	0.00	1.00	1.00	2.56	0.44	1.00	2.99	0.01
Final Sat.:	1750	0	1750	3150	0	1750	1750	4799	800	1750	5576	24
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.08	0.00	0.00	0.00	0.01	0.14	0.14	0.07	0.21	0.21
Crit Moves:	****					****		****		****		
Green Time:	14.0	0.0	14.0	0.7	0.0	0.7	1.2	24.7	24.7	13.3	36.9	36.9
Volume/Cap:	0.28	0.00	0.35	0.08	0.00	0.35	0.35	0.35	0.35	0.35	0.35	0.35
Uniform Del:	19.9	0.0	20.2	30.3	0.0	30.4	30.0	13.0	13.0	20.6	6.4	6.4
IncremntDel:	1.8	0.0	2.4	4.4	0.0	41.8	26.6	0.4	0.4	2.5	0.3	0.3
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	21.6	0.0	22.6	34.8	0.0	72.2	56.6	13.4	13.4	23.2	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:	21.6	0.0	22.6	34.8	0.0	72.2	56.6	13.4	13.4	23.2	6.7	6.7
LOS by Move:	C+	A	C+	C-	A	E	E+	B	B	C	A	A
HCM2kAvgQ:	52	0	67	3	0	14	17	92	92	65	102	102

Note: Queue reported is the distance per lane in feet.

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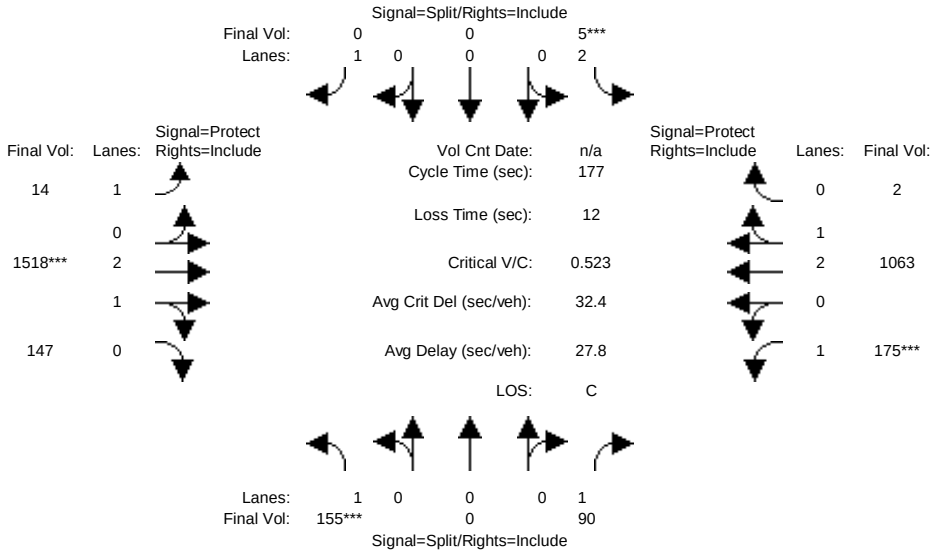
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #40: Stevens Creek Boulevard/Finch Avenue



Street Name:	Finch Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	0	10	0	0	0	7	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	155	0	90	5	0	0	14	1264	147	175	983	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	155	0	90	5	0	0	14	1264	147	175	983	2
Added Vol:	0	0	0	0	0	0	0	254	0	0	80	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	155	0	90	5	0	0	14	1518	147	175	1063	2
User Adj:	1.00	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:	155	0	90	5	0	0	14	1518	147	175	1063	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	155	0	90	5	0	0	14	1518	147	175	1063	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	155	0	90	5	0	0	14	1518	147	175	1063	2
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.99	0.95	0.92	0.98	0.95
Lanes:	1.00	0.00	1.00	2.00	0.00	1.00	1.00	2.73	0.27	1.00	2.99	0.01
Final Sat.:	1750	0	1750	3150	0	1750	1750	5105	494	1750	5589	11
Capacity Analysis Module:												
Vol/Sat:	0.09	0.00	0.05	0.00	0.00	0.00	0.01	0.30	0.30	0.10	0.19	0.19
Crit Moves:	****			****				****		****		
Green Time:	30.0	0.0	30.0	0.5	0.0	0.0	23.2	101	100.6	33.8	111	111.3
Volume/Cap:	0.52	0.00	0.30	0.52	0.00	0.00	0.06	0.52	0.52	0.52	0.30	0.30
Uniform Del:	67.0	0.0	64.4	88.1	0.0	0.0	67.4	23.4	23.4	64.3	15.0	15.0
IncremntDel:	6.5	0.0	2.6	128.9	0.0	0.0	0.5	0.6	0.6	5.7	0.2	0.2
InitQueuDel:	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	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	73.5	0.0	67.0	217.1	0.0	0.0	67.9	24.1	24.1	70.1	15.3	15.3
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:	73.5	0.0	67.0	217.1	0.0	0.0	67.9	24.1	24.1	70.1	15.3	15.3
LOS by Move:	E	A	E	F	A	A	E	C	C	E	B	B
HCM2kAvgQ:	215	0	116	15	0	0	18	453	453	236	214	214

Note: Queue reported is the distance per lane in feet.

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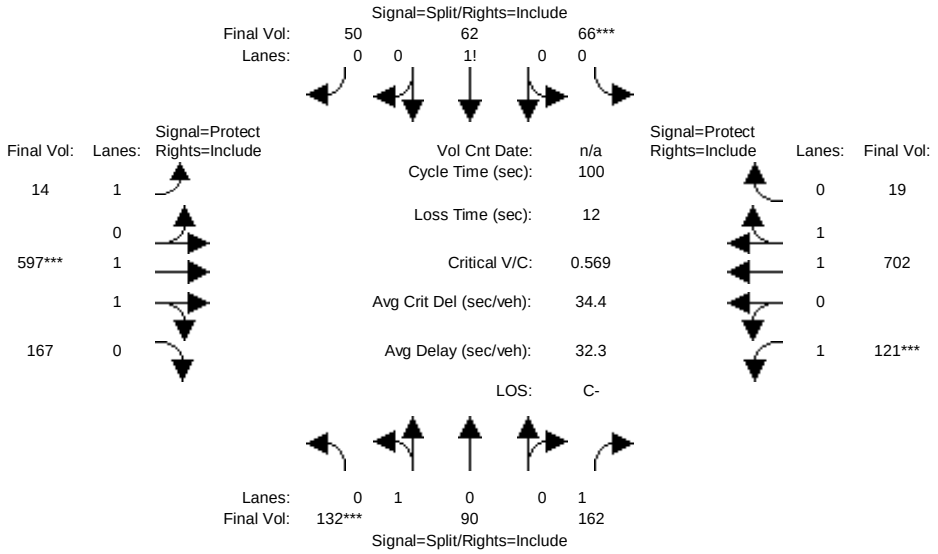
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #41: Tantau Avenue/Homestead Road



Street Name:	Tantau Avenu						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	124	90	162	66	62	50	14	578	167	121	655	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	124	90	162	66	62	50	14	578	167	121	655	19
Added Vol:	8	0	0	0	0	0	0	19	0	0	47	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	132	90	162	66	62	50	14	597	167	121	702	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:	132	90	162	66	62	50	14	597	167	121	702	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	132	90	162	66	62	50	14	597	167	121	702	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:	132	90	162	66	62	50	14	597	167	121	702	19
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.98	0.95	0.92	0.97	0.95
Lanes:	0.59	0.41	1.00	0.37	0.35	0.28	1.00	1.55	0.45	1.00	1.95	0.05
Final Sat.:	1070	730	1750	649	610	492	1750	2891	809	1750	3602	98
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.09	0.10	0.10	0.10	0.01	0.21	0.21	0.07	0.19	0.19
Crit Moves:	****			****				****		****		
Green Time:	21.7	21.7	21.7	17.9	17.9	17.9	12.8	36.3	36.3	12.2	35.6	35.6
Volume/Cap:	0.57	0.57	0.43	0.57	0.57	0.57	0.06	0.57	0.57	0.57	0.55	0.55
Uniform Del:	35.0	35.0	33.8	37.5	37.5	37.5	38.3	25.6	25.6	41.5	25.7	25.7
IncremntDel:	5.9	5.9	3.5	7.3	7.3	7.3	0.5	1.8	1.8	10.6	1.6	1.6
InitQueuDel:	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:	40.9	40.9	37.3	44.9	44.9	44.9	38.9	27.3	27.3	52.0	27.4	27.4
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:	40.9	40.9	37.3	44.9	44.9	44.9	38.9	27.3	27.3	52.0	27.4	27.4
LOS by Move:	D	D	D+	D	D	D	D+	C	C	D-	C	C
HCM2kAvgQ:	177	177	124	154	154	154	11	251	251	116	235	235

Note: Queue reported is the distance per lane in feet.

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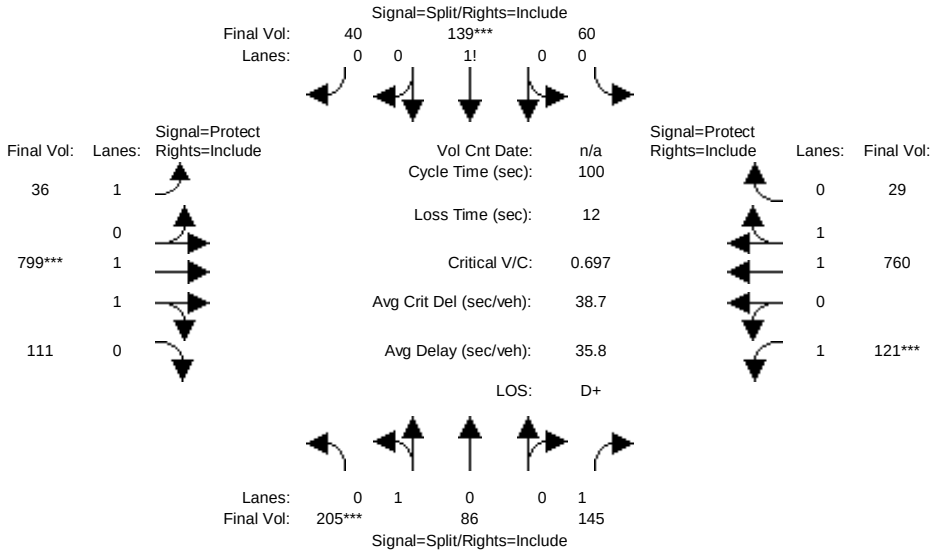
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #41: Tantau Avenue/Homestead Road



Street Name:	Tantau Avenu						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	178	86	145	60	139	40	36	683	111	121	599	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	178	86	145	60	139	40	36	683	111	121	599	29
Added Vol:	27	0	0	0	0	0	0	116	0	0	161	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	205	86	145	60	139	40	36	799	111	121	760	29
User Adj:	1.00	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:	205	86	145	60	139	40	36	799	111	121	760	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	205	86	145	60	139	40	36	799	111	121	760	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	205	86	145	60	139	40	36	799	111	121	760	29
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.98	0.95	0.92	0.97	0.95
Lanes:	0.70	0.30	1.00	0.25	0.58	0.17	1.00	1.75	0.25	1.00	1.92	0.08
Final Sat.:	1268	532	1750	439	1018	293	1750	3248	451	1750	3564	136
Capacity Analysis Module:												
Vol/Sat:	0.16	0.16	0.08	0.14	0.14	0.14	0.02	0.25	0.25	0.07	0.21	0.21
Crit Moves:	****				****			****			****	
Green Time:	23.2	23.2	23.2	19.6	19.6	19.6	11.2	35.3	35.3	9.9	34.0	34.0
Volume/Cap:	0.70	0.70	0.36	0.70	0.70	0.70	0.18	0.70	0.70	0.70	0.63	0.63
Uniform Del:	35.2	35.2	32.2	37.4	37.4	37.4	40.3	27.8	27.8	43.6	27.7	27.7
IncremntDel:	9.3	9.3	2.4	11.2	11.2	11.2	2.1	3.1	3.1	20.7	2.4	2.4
InitQueuDel:	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:	44.5	44.5	34.6	48.6	48.6	48.6	42.3	30.9	30.9	64.3	30.0	30.0
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:	44.5	44.5	34.6	48.6	48.6	48.6	42.3	30.9	30.9	64.3	30.0	30.0
LOS by Move:	D	D	C-	D	D	D	D	C	C	E	C	C
HCM2kAvgQ:	247	247	105	218	218	218	30	332	332	134	276	276

Note: Queue reported is the distance per lane in feet.

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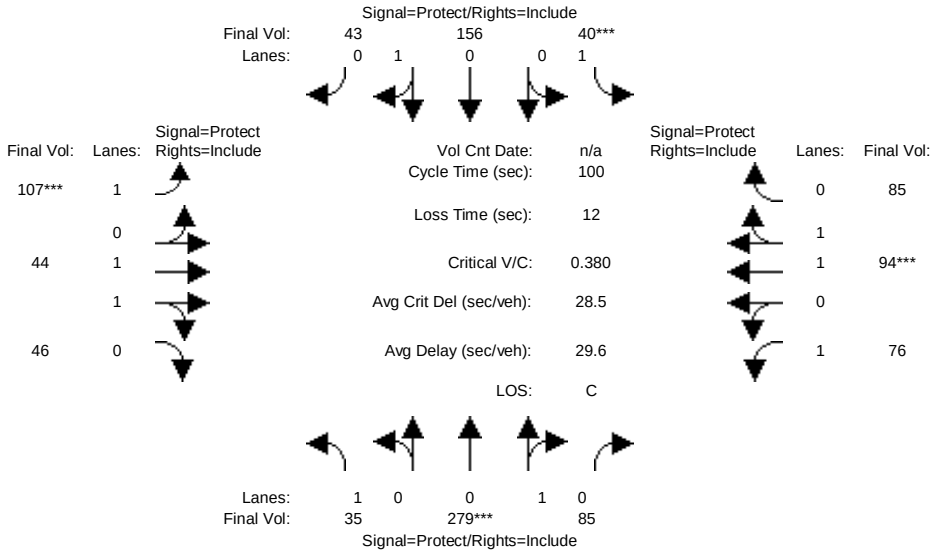
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #42: Tantau Avenue/Pruneridge Avenue



Street Name:	Tantau Avenu						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	35	279	80	40	156	43	107	44	46	76	94	77
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	35	279	80	40	156	43	107	44	46	76	94	77
Added Vol:	0	0	5	0	0	0	0	0	0	0	0	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	35	279	85	40	156	43	107	44	46	76	94	85
User Adj:	1.00	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	279	85	40	156	43	107	44	46	76	94	85
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	279	85	40	156	43	107	44	46	76	94	85
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	279	85	40	156	43	107	44	46	76	94	85
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	1.00	0.92	0.92	1.00	0.95
Lanes:	1.00	0.77	0.23	1.00	0.78	0.22	1.00	1.00	1.00	1.00	1.02	0.98
Final Sat.:	1750	1380	420	1750	1411	389	1750	1900	1750	1750	1942	1756
Capacity Analysis Module:												
Vol/Sat:	0.02	0.20	0.20	0.02	0.11	0.11	0.06	0.02	0.03	0.04	0.05	0.05
Crit Moves:		****		****			****				****	
Green Time:	23.1	52.5	52.5	7.0	36.5	36.5	15.9	16.7	16.7	11.7	12.6	12.6
Volume/Cap:	0.09	0.38	0.38	0.33	0.30	0.30	0.38	0.14	0.16	0.37	0.38	0.38
Uniform Del:	30.2	14.1	14.1	44.3	22.7	22.7	37.7	35.5	35.6	40.7	40.2	40.2
IncremntDel:	0.4	1.2	1.2	7.0	1.2	1.2	4.0	0.4	0.6	5.1	2.4	2.4
InitQueuDel:	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:	30.6	15.3	15.3	51.2	23.9	23.9	41.7	35.9	36.2	45.8	42.6	42.6
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:	30.6	15.3	15.3	51.2	23.9	23.9	41.7	35.9	36.2	45.8	42.6	42.6
LOS by Move:	C	B	B	D-	C	C	D	D+	D+	D	D	D
HCM2kAvgQ:	23	174	174	40	115	115	88	30	34	67	74	74

Note: Queue reported is the distance per lane in feet.

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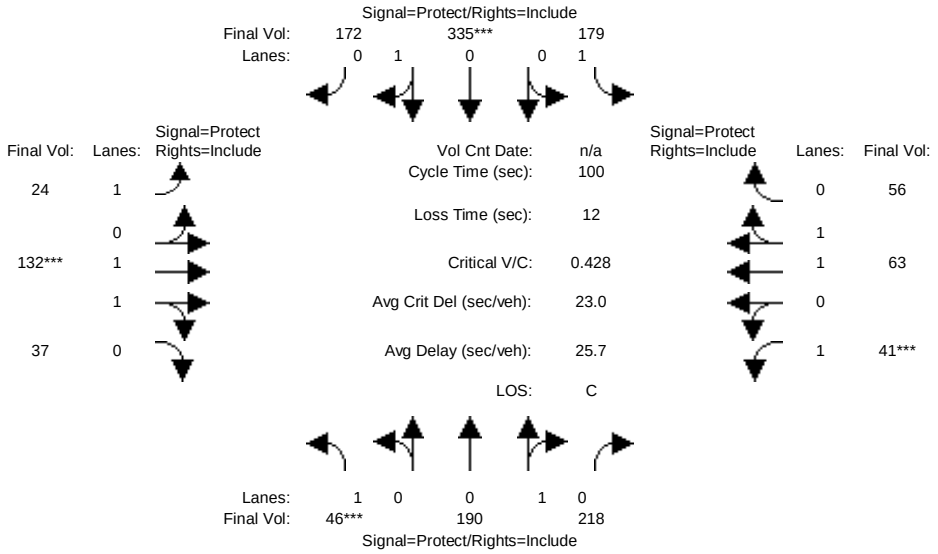
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #42: Tantau Avenue/Pruneridge Avenue



Street Name:	Tantau Avenu						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	46	190	189	179	335	172	24	132	37	41	63	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	46	190	189	179	335	172	24	132	37	41	63	29
Added Vol:	0	0	29	0	0	0	0	0	0	0	0	27
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	46	190	218	179	335	172	24	132	37	41	63	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:	46	190	218	179	335	172	24	132	37	41	63	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	190	218	179	335	172	24	132	37	41	63	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:	46	190	218	179	335	172	24	132	37	41	63	56
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.98	0.95	0.92	1.00	0.95
Lanes:	1.00	0.47	0.53	1.00	0.66	0.34	1.00	1.55	0.45	1.00	1.03	0.97
Final Sat.:	1750	838	962	1750	1189	611	1750	2889	810	1750	1958	1740
Capacity Analysis Module:												
Vol/Sat:	0.03	0.23	0.23	0.10	0.28	0.28	0.01	0.05	0.05	0.02	0.03	0.03
Crit Moves:	****				****			****		****		
Green Time:	7.0	48.7	48.7	22.0	63.7	63.7	7.1	10.3	10.3	7.0	10.2	10.2
Volume/Cap:	0.38	0.47	0.47	0.47	0.44	0.44	0.19	0.44	0.44	0.33	0.32	0.32
Uniform Del:	44.4	17.0	17.0	33.9	9.2	9.2	43.7	42.1	42.1	44.3	41.7	41.7
IncremntDel:	8.6	1.8	1.8	4.0	1.2	1.2	3.4	3.7	3.7	7.2	2.2	2.2
InitQueuDel:	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:	53.0	18.8	18.8	37.9	10.4	10.4	47.1	45.8	45.8	51.5	43.9	43.9
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:	53.0	18.8	18.8	37.9	10.4	10.4	47.1	45.8	45.8	51.5	43.9	43.9
LOS by Move:	D-	B-	B-	D+	B+	B+	D	D	D	D-	D	D
HCM2kAvgQ:	47	220	220	138	208	208	23	75	75	41	51	51

Note: Queue reported is the distance per lane in feet.

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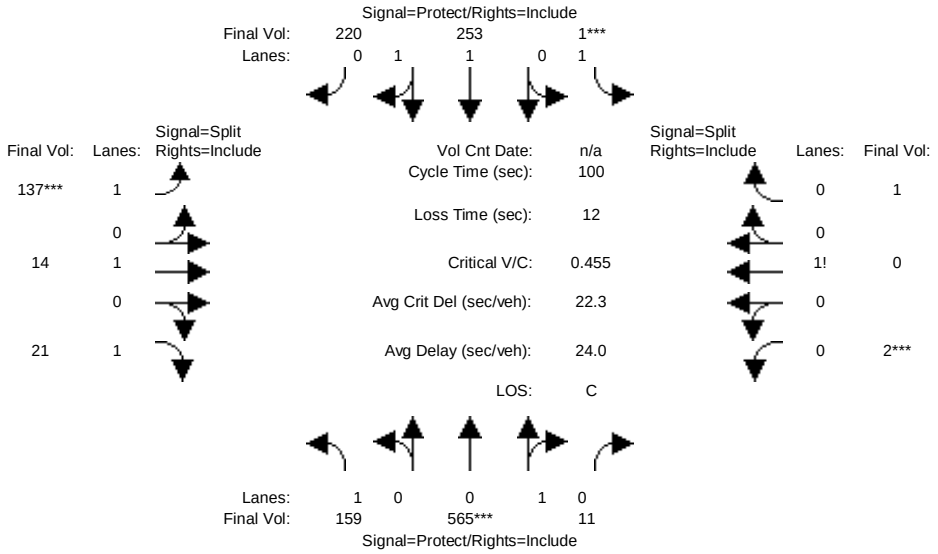
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #43: Tantau Avenue/Vallco Parkway



Street Name:	Tantau Avenu						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	159	565	11	1	253	220	137	14	21	2	0	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	159	565	11	1	253	220	137	14	21	2	0	1
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:	159	565	11	1	253	220	137	14	21	2	0	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	159	565	11	1	253	220	137	14	21	2	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	159	565	11	1	253	220	137	14	21	2	0	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	159	565	11	1	253	220	137	14	21	2	0	1
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	1.00	0.95	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	0.98	0.02	1.00	1.04	0.96	1.00	1.00	1.00	0.67	0.00	0.33
Final Sat.:	1750	1766	34	1750	1978	1720	1750	1900	1750	1167	0	583
Capacity Analysis Module:												
Vol/Sat:	0.09	0.32	0.32	0.00	0.13	0.13	0.08	0.01	0.01	0.00	0.00	0.00
Crit Moves:		****			****			****			****	
Green Time:	26.6	57.0	57.0	7.0	37.4	37.4	14.0	14.0	14.0	10.0	0.0	10.0
Volume/Cap:	0.34	0.56	0.56	0.01	0.34	0.34	0.56	0.05	0.09	0.02	0.00	0.02
Uniform Del:	29.6	13.6	13.6	43.3	22.4	22.4	40.2	37.3	37.5	40.6	0.0	40.6
IncremntDel:	2.0	2.2	2.2	0.1	0.7	0.7	9.0	0.4	0.7	0.2	0.0	0.2
InitQueuDel:	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	0.00	1.00
Delay/Veh:	31.6	15.8	15.8	43.4	23.1	23.1	49.2	37.7	38.2	40.7	0.0	40.7
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:	31.6	15.8	15.8	43.4	23.1	23.1	49.2	37.7	38.2	40.7	0.0	40.7
LOS by Move:	C	B	B	D	C	C	D	D+	D+	D	A	D
HCM2kAvgQ:	110	298	298	1	134	134	126	10	16	2	0	2

Note: Queue reported is the distance per lane in feet.

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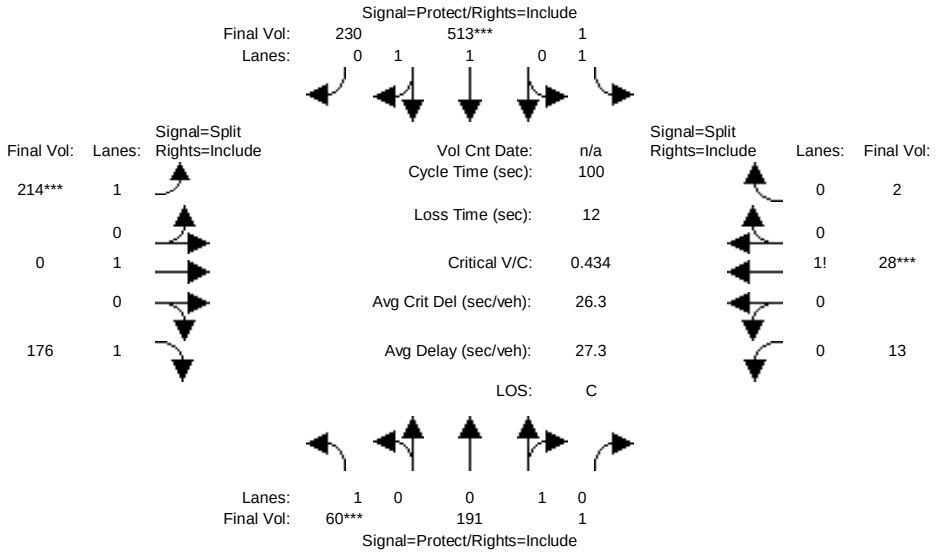
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #43: Tantau Avenue/Vallco Parkway



Street Name:	Tantau Avenu						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	60	191	1	1	513	230	214	0	176	13	28	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	60	191	1	1	513	230	214	0	176	13	28	2
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:	60	191	1	1	513	230	214	0	176	13	28	2
User Adj:	1.00	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:	60	191	1	1	513	230	214	0	176	13	28	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	191	1	1	513	230	214	0	176	13	28	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	60	191	1	1	513	230	214	0	176	13	28	2
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.99	0.95	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	0.99	0.01	1.00	1.36	0.64	1.00	1.00	1.00	0.30	0.65	0.05
Final Sat.:	1750	1791	9	1750	2554	1145	1750	1900	1750	529	1140	81
Capacity Analysis Module:												
Vol/Sat:	0.03	0.11	0.11	0.00	0.20	0.20	0.12	0.00	0.10	0.02	0.02	0.02
Crit Moves:	****				****		****				****	
Green Time:	7.5	31.0	31.0	20.3	43.8	43.8	26.7	0.0	26.7	10.0	10.0	10.0
Volume/Cap:	0.46	0.34	0.34	0.00	0.46	0.46	0.46	0.00	0.38	0.25	0.25	0.25
Uniform Del:	44.3	26.7	26.7	31.8	19.7	19.7	30.6	0.0	29.9	41.5	41.5	41.5
IncremntDel:	11.1	1.7	1.7	0.0	0.9	0.9	3.2	0.0	2.3	3.3	3.3	3.3
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00
Delay/Veh:	55.4	28.3	28.3	31.8	20.7	20.7	33.8	0.0	32.2	44.8	44.8	44.8
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:	55.4	28.3	28.3	31.8	20.7	20.7	33.8	0.0	32.2	44.8	44.8	44.8
LOS by Move:	E+	C	C	C	C+	C+	C-	A	C-	D	D	D
HCM2kAvgQ:	63	122	122	1	207	207	155	0	123	38	38	38

Note: Queue reported is the distance per lane in feet.

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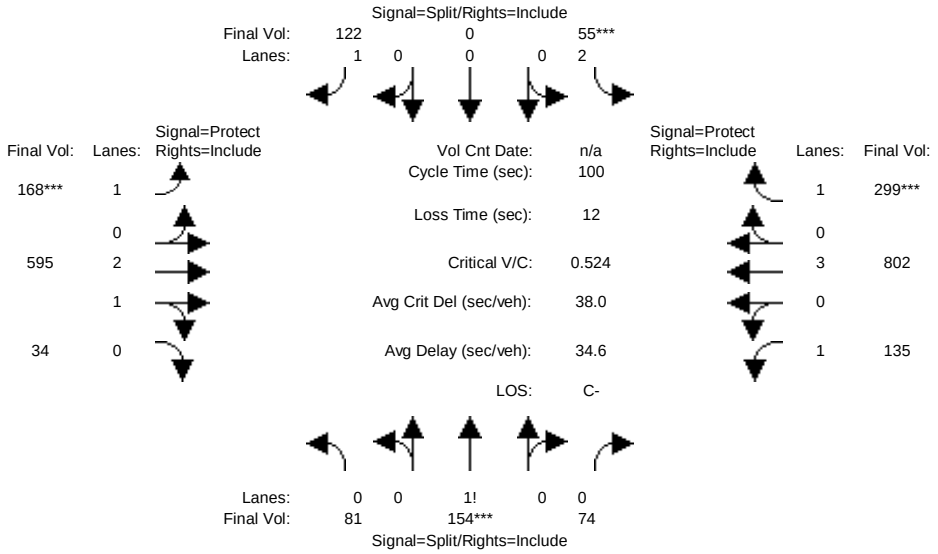
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #44: Tantau Avenue/Stevens Creek Boulevard



Street Name:	Tantau Avenu						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	81	154	74	55	0	122	168	595	34	135	802	299
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	81	154	74	55	0	122	168	595	34	135	802	299
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:	81	154	74	55	0	122	168	595	34	135	802	299
User Adj:	1.00	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	154	74	55	0	122	168	595	34	135	802	299
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	154	74	55	0	122	168	595	34	135	802	299
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	154	74	55	0	122	168	595	34	135	802	299
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.83	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92
Lanes:	0.26	0.50	0.24	2.00	0.00	1.00	1.00	2.83	0.17	1.00	3.00	1.00
Final Sat.:	459	872	419	3150	0	1750	1750	5297	303	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.18	0.18	0.18	0.02	0.00	0.07	0.10	0.11	0.11	0.08	0.14	0.17
Crit Moves:		****		****			****					****
Green Time:	29.7	29.7	29.7	13.3	0.0	13.3	16.2	26.6	26.6	18.3	28.8	28.8
Volume/Cap:	0.59	0.59	0.59	0.13	0.00	0.52	0.59	0.42	0.42	0.42	0.49	0.59
Uniform Del:	30.0	30.0	30.0	38.2	0.0	40.4	38.9	30.3	30.3	36.2	29.5	30.6
IncremntDel:	4.9	4.9	4.9	0.6	0.0	8.2	8.9	0.9	0.9	4.0	1.0	5.1
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	34.9	34.9	34.9	38.9	0.0	48.6	47.7	31.2	31.2	40.2	30.6	35.7
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:	34.9	34.9	34.9	38.9	0.0	48.6	47.7	31.2	31.2	40.2	30.6	35.7
LOS by Move:	C-	C-	C-	D+	A	D	D	C	C	D	C	D+
HCM2kAvgQ:	234	234	234	24	0	111	151	140	140	108	177	228

Note: Queue reported is the distance per lane in feet.

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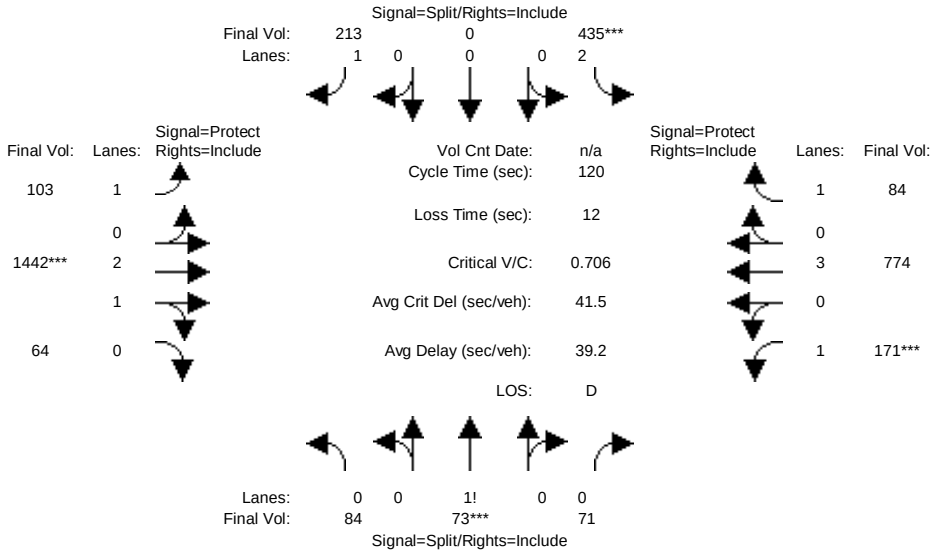
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #44: Tantau Avenue/Stevens Creek Boulevard



Street Name:	Tantau Avenu						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	84	73	71	435	0	213	103	1442	64	171	774	84
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	84	73	71	435	0	213	103	1442	64	171	774	84
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	84	73	71	435	0	213	103	1442	64	171	774	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:	84	73	71	435	0	213	103	1442	64	171	774	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	73	71	435	0	213	103	1442	64	171	774	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:	84	73	71	435	0	213	103	1442	64	171	774	84
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.83	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92
Lanes:	0.37	0.32	0.31	2.00	0.00	1.00	1.00	2.87	0.13	1.00	3.00	1.00
Final Sat.:	645	560	545	3150	0	1750	1750	5362	238	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.13	0.13	0.13	0.14	0.00	0.12	0.06	0.27	0.27	0.10	0.14	0.05
Crit Moves:		****		****				****		****		
Green Time:	22.2	22.2	22.2	23.5	0.0	23.5	18.9	45.7	45.7	16.6	43.5	43.5
Volume/Cap:	0.71	0.71	0.71	0.71	0.00	0.62	0.37	0.71	0.71	0.71	0.37	0.13
Uniform Del:	45.9	45.9	45.9	45.0	0.0	44.2	45.3	31.4	31.4	49.4	28.2	25.6
IncremntDel:	12.2	12.2	12.2	6.7	0.0	8.2	3.9	2.0	2.0	15.9	0.5	0.4
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	58.1	58.1	58.1	51.7	0.0	52.4	49.2	33.4	33.4	65.2	28.7	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:	58.1	58.1	58.1	51.7	0.0	52.4	49.2	33.4	33.4	65.2	28.7	26.0
LOS by Move:	E+	E+	E+	D-	A	D-	D	C-	C-	E	C	C
HCM2kAvgQ:	245	245	245	256	0	214	98	416	416	197	173	55

Note: Queue reported is the distance per lane in feet.

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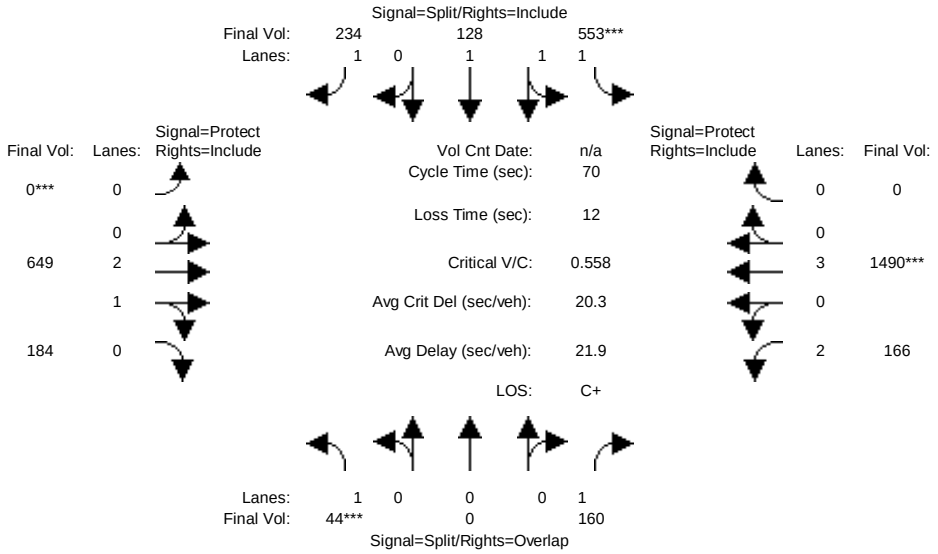
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #45: Stevens Creek Boulevard/Calvert Drive/I-280 Ramps



Street Name:	Stevens Creek Boulevard						Calvert Drive/I-280 Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	0	10	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	44	0	160	553	128	234	0	625	137	166	1419	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:	44	0	160	553	128	234	0	625	137	166	1419	0
Added Vol:	0	0	0	0	0	0	0	24	47	0	71	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	0	160	553	128	234	0	649	184	166	1490	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:	44	0	160	553	128	234	0	649	184	166	1490	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	0	160	553	128	234	0	649	184	166	1490	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:	44	0	160	553	128	234	0	649	184	166	1490	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.99	0.95	0.83	1.00	0.92
Lanes:	1.00	0.00	1.00	2.00	1.00	1.00	0.00	2.31	0.69	2.00	3.00	0.00
Final Sat.:	1750	0	1750	3150	1900	1750	0	4361	1237	3150	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.09	0.18	0.07	0.13	0.00	0.15	0.15	0.05	0.26	0.00
Crit Moves:	****			****			****				****	
Green Time:	10.0	0.0	21.5	19.3	19.3	19.3	0.0	17.2	17.2	11.5	28.7	0.0
Volume/Cap:	0.18	0.00	0.30	0.64	0.24	0.49	0.00	0.61	0.61	0.32	0.64	0.00
Uniform Del:	26.4	0.0	18.5	22.3	19.7	21.2	0.0	23.4	23.4	25.8	16.5	0.0
IncremntDel:	1.5	0.0	1.4	2.9	0.2	3.5	0.0	2.0	2.0	1.6	1.3	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	27.9	0.0	19.9	25.2	19.9	24.7	0.0	25.4	25.4	27.4	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:	27.9	0.0	19.9	25.2	19.9	24.7	0.0	25.4	25.4	27.4	17.8	0.0
LOS by Move:	C	A	B-	C	B-	C	A	C	C	C	B	A
HCM2kAvgQ:	26	0	75	184	56	126	0	158	158	54	235	0

Note: Queue reported is the distance per lane in feet.

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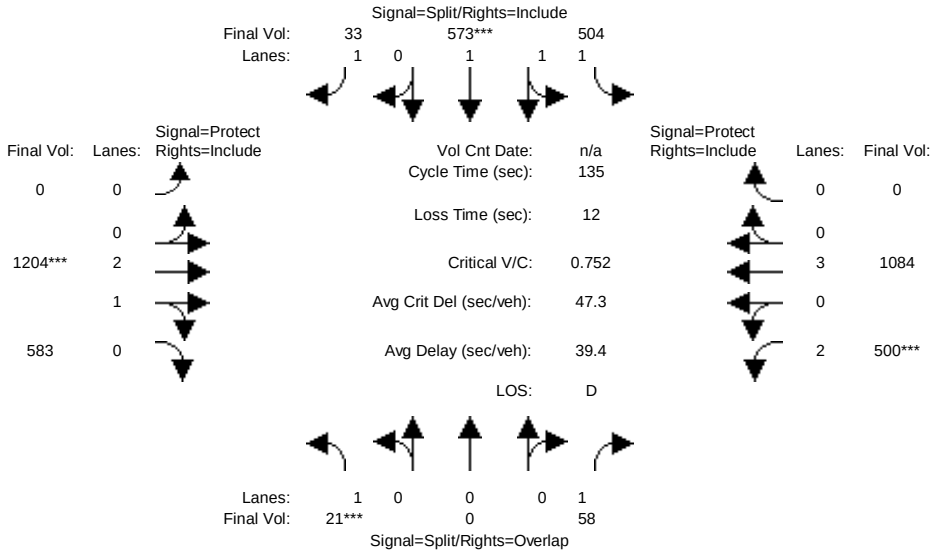
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #45: Stevens Creek Boulevard/Calvert Drive/I-280 Ramps



Street Name:	Stevens Creek Boulevard						Calvert Drive/I-280 Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	0	10	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	21	0	58	504	573	33	0	1059	300	500	843	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:	21	0	58	504	573	33	0	1059	300	500	843	0
Added Vol:	0	0	0	0	0	0	0	145	283	0	241	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	0	58	504	573	33	0	1204	583	500	1084	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:	21	0	58	504	573	33	0	1204	583	500	1084	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	0	58	504	573	33	0	1204	583	500	1084	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:	21	0	58	504	573	33	0	1204	583	500	1084	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.93	0.98	0.92	0.92	1.00	0.95	0.83	1.00	0.92
Lanes:	1.00	0.00	1.00	1.44	1.56	1.00	0.00	2.00	1.00	2.00	3.00	0.00
Final Sat.:	1750	0	1750	2549	2897	1750	0	3798	1800	3150	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.03	0.20	0.20	0.02	0.00	0.32	0.32	0.16	0.19	0.00
Crit Moves:	****				****			****		****		
Green Time:	10.0	0.0	36.6	33.2	33.2	33.2	0.0	53.2	53.2	26.6	79.8	0.0
Volume/Cap:	0.16	0.00	0.12	0.80	0.80	0.08	0.00	0.80	0.82	0.80	0.32	0.00
Uniform Del:	58.6	0.0	37.1	47.9	47.9	39.1	0.0	36.3	36.7	51.7	13.9	0.0
IncremntDel:	2.7	0.0	0.5	5.2	5.2	0.3	0.0	3.2	3.7	10.6	0.3	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	61.2	0.0	37.6	53.1	53.1	39.5	0.0	39.5	40.3	62.3	14.2	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:	61.2	0.0	37.6	53.1	53.1	39.5	0.0	39.5	40.3	62.3	14.2	0.0
LOS by Move:	E	A	D+	D-	D-	D	A	D	D	E	B	A
HCM2kAvgQ:	25	0	48	412	412	28	0	588	611	347	183	0

Note: Queue reported is the distance per lane in feet.

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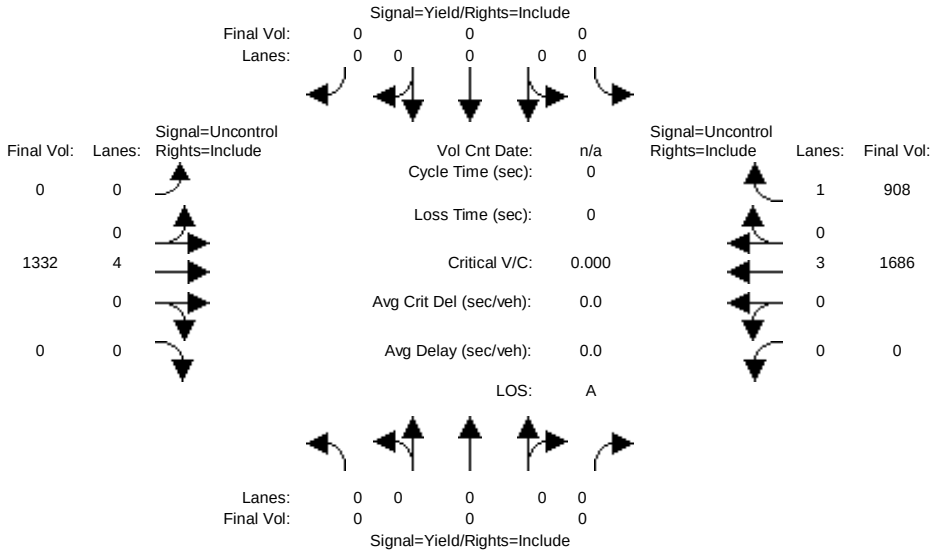
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 AM

Intersection #46: Stevens Creek Boulevard/I-280 Ramps East

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Street Name:     Stevens Creek Boulevard              I-280 Ramps East
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0     0    0     0     0 1308     0     0 1615   908
Growth Adj:  1.00 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     0    0     0     0 1308     0     0 1615   908
Added Vol:      0    0     0     0    0     0     0   24     0     0   71     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     0     0    0     0     0 1332     0     0 1686   908
User Adj:    1.00 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     0    0     0     0 1332     0     0 1686   908
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0     0    0     0     0 1332     0     0 1686   908
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         *                *                *                *
Note: Queue reported is the distance per lane in feet.
                  Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #46 Stevens Creek Boulevard/I-280 Ramps East
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 0			0 0 4 0 0			0 0 3 0 1		
Initial Vol:	0	0	0	0	0	0	0	1332	0	0	1686	908
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #46 Stevens Creek Boulevard/I-280 Ramps East

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 0			0 0 4 0 0			0 0 3 0 1		
Initial Vol:	0	0	0	0	0	0	0	1332	0	0	1686	908

Major Street Volume: 3926
Minor Approach Volume: 0
Minor Approach Volume Threshold: -186 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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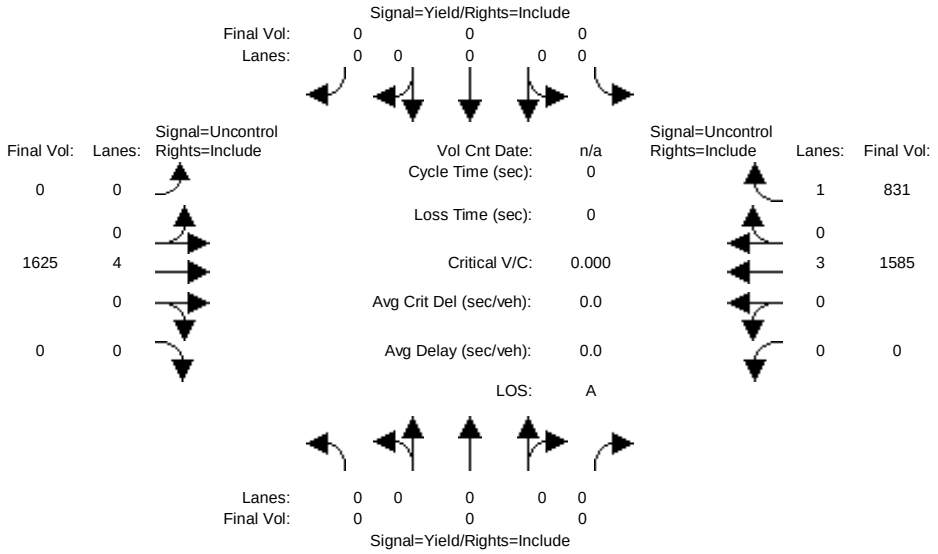
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 PM

Intersection #46: Stevens Creek Boulevard/I-280 Ramps East




```
Street Name:     Stevens Creek Boulevard              I-280 Ramps East
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0     0    0     0     0 1480     0     0 1344   831
Growth Adj:  1.00 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     0    0     0     0 1480     0     0 1344   831
Added Vol:      0    0     0     0    0     0     0  145     0     0  241     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     0     0    0     0     0 1625     0     0 1585   831
User Adj:    1.00 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     0    0     0     0 1625     0     0 1585   831
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0     0    0     0     0 1625     0     0 1585   831
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         *                *                *                *
Note: Queue reported is the distance per lane in feet.
                  Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #46 Stevens Creek Boulevard/I-280 Ramps East
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0	0 0	0	0 0 0	0 0	0	0 0 4	0 0	0	0 0 3	0 1	
Initial Vol:	0	0	0	0	0	0	0	1625	0	0	1585	831
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #46 Stevens Creek Boulevard/I-280 Ramps East

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0	0 0	0	0 0 0	0 0	0	0 0 4	0 0	0	0 0 3	0 1	
Initial Vol:	0	0	0	0	0	0	0	1625	0	0	1585	831

Major Street Volume: 4041
Minor Approach Volume: 0
Minor Approach Volume Threshold: -196 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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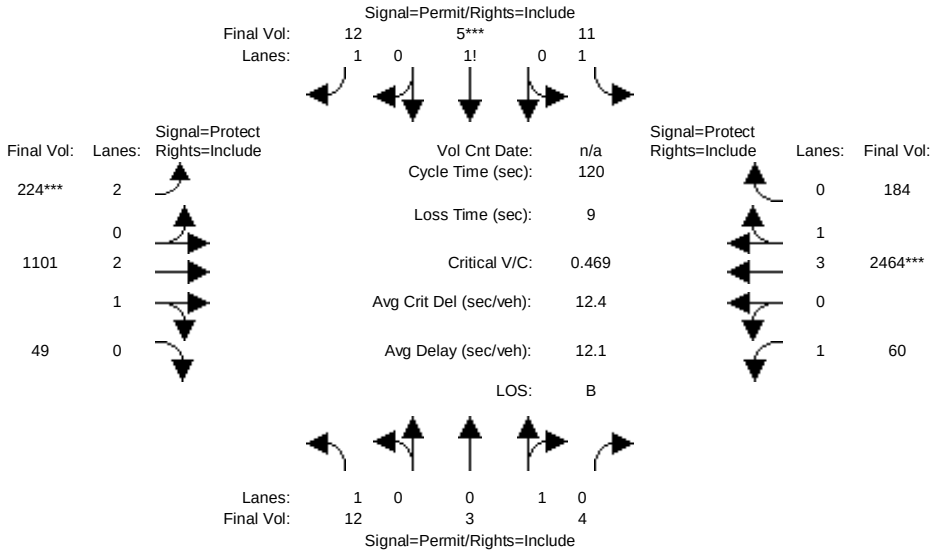
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #47: Stevens Creek Boulevard/Agilent Driveway



Street Name:	Stevens Creek Boulevard						Agilent Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	12	3	4	11	5	12	224	1077	49	60	2393	184
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	3	4	11	5	12	224	1077	49	60	2393	184
Added Vol:	0	0	0	0	0	0	0	24	0	0	71	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	3	4	11	5	12	224	1101	49	60	2464	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:	12	3	4	11	5	12	224	1101	49	60	2464	184
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	3	4	11	5	12	224	1101	49	60	2464	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:	12	3	4	11	5	12	224	1101	49	60	2464	184
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.92	0.92	0.83	0.98	0.95	0.92	0.99	0.95
Lanes:	1.00	0.43	0.57	1.33	0.30	1.37	2.00	2.87	0.13	1.00	3.71	0.29
Final Sat.:	1750	771	1029	2333	530	2386	3150	5361	239	1750	6978	521
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.00	0.00	0.01	0.01	0.07	0.21	0.21	0.03	0.35	0.35
Crit Moves:					****		****				****	
Green Time:	10.0	10.0	10.0	10.0	10.0	10.0	16.9	78.7	78.7	22.3	84.1	84.1
Volume/Cap:	0.08	0.05	0.05	0.06	0.11	0.06	0.50	0.31	0.31	0.18	0.50	0.50
Uniform Del:	50.8	50.6	50.6	50.7	50.9	50.7	47.7	9.0	9.0	41.1	8.3	8.3
IncremntDel:	1.1	0.6	0.6	0.2	0.9	0.2	4.0	0.2	0.2	1.2	0.3	0.3
InitQueuDel:	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:	51.9	51.2	51.2	50.9	51.8	50.9	51.7	9.2	9.2	42.4	8.7	8.7
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:	51.9	51.2	51.2	50.9	51.8	50.9	51.7	9.2	9.2	42.4	8.7	8.7
LOS by Move:	D-	D-	D-	D	D-	D	D-	A	A	D	A	A
HCM2kAvgQ:	12	7	7	8	17	9	128	152	152	51	284	284

Note: Queue reported is the distance per lane in feet.

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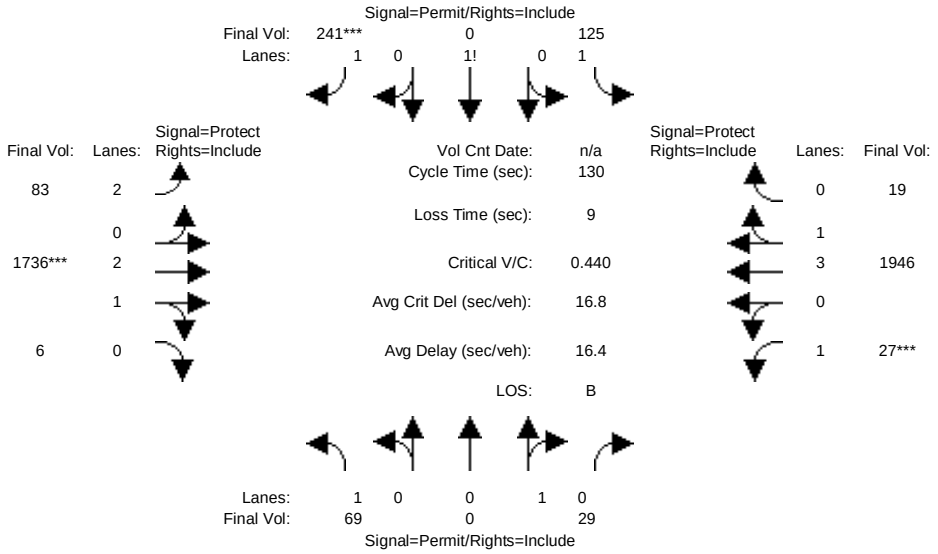
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #47: Stevens Creek Boulevard/Agilent Driveway



Street Name:	Stevens Creek Boulevard						Agilent Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	69	0	29	125	0	241	83	1591	6	27	1705	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	69	0	29	125	0	241	83	1591	6	27	1705	19
Added Vol:	0	0	0	0	0	0	0	145	0	0	241	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	69	0	29	125	0	241	83	1736	6	27	1946	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:	69	0	29	125	0	241	83	1736	6	27	1946	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	69	0	29	125	0	241	83	1736	6	27	1946	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:	69	0	29	125	0	241	83	1736	6	27	1946	19
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.95	0.92	1.00	0.92	0.83	0.98	0.95	0.92	0.99	0.95
Lanes:	1.00	0.00	1.00	1.34	0.00	1.66	2.00	2.99	0.01	1.00	3.96	0.04
Final Sat.:	1750	0	1800	2348	0	2902	3150	5581	19	1750	7427	73
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.02	0.05	0.00	0.08	0.03	0.31	0.31	0.02	0.26	0.26
Crit Moves:						****		****		****		
Green Time:	24.0	0.0	24.0	24.0	0.0	24.0	16.5	90.0	90.0	7.0	80.4	80.4
Volume/Cap:	0.21	0.00	0.09	0.29	0.00	0.45	0.21	0.45	0.45	0.29	0.42	0.42
Uniform Del:	45.0	0.0	43.9	45.6	0.0	47.1	50.9	8.9	8.9	59.1	12.8	12.8
IncremntDel:	1.5	0.0	0.5	0.6	0.0	1.8	1.2	0.4	0.4	7.5	0.3	0.3
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	46.5	0.0	44.4	46.2	0.0	48.9	52.0	9.3	9.3	66.6	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:	46.5	0.0	44.4	46.2	0.0	48.9	52.0	9.3	9.3	66.6	13.1	13.1
LOS by Move:	D	A	D	D	A	D	D-	A	A	E	B	B
HCM2kAvgQ:	64	0	25	89	0	146	47	259	259	35	250	250

Note: Queue reported is the distance per lane in feet.

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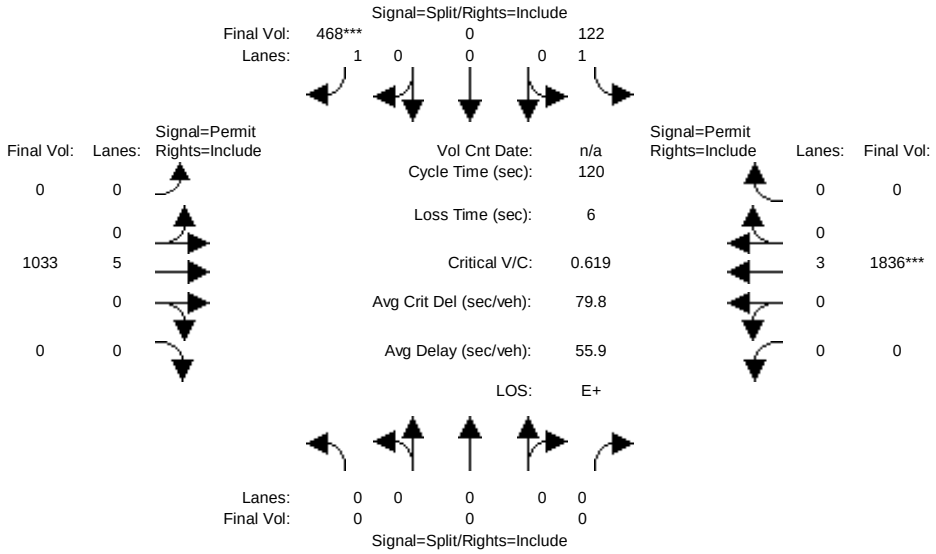
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #48: Stevens Creek Boulevard/Lawrence Expressway Ramps West



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps West					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	0	0	20	0	20	0	100	0	0	100	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	122	0	468	0	1009	0	0	1765	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	122	0	468	0	1009	0	0	1765	0
Added Vol:	0	0	0	0	0	0	0	24	0	0	71	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	122	0	468	0	1033	0	0	1836	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	0	0	122	0	468	0	1033	0	0	1836	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	122	0	468	0	1033	0	0	1836	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	122	0	468	0	1033	0	0	1836	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	5.00	0.00	0.00	3.00	0.00
Final Sat.:	0	0	0	1750	0	1750	0	9500	0	0	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.07	0.00	0.27	0.00	0.11	0.00	0.00	0.32	0.00
Crit Moves:						****					****	
Green Time:	0.0	0.0	0.0	19.0	0.0	19.0	0.0	95.2	0.0	0.0	95.2	0.0
Volume/Cap:	0.00	0.00	0.00	0.44	0.00	1.68	0.00	0.14	0.00	0.00	0.41	0.00
Uniform Del:	0.0	0.0	0.0	47.9	0.0	53.0	0.0	3.0	0.0	0.0	4.0	0.0
IncremntDel:	0.0	0.0	0.0	5.0	0.0	323.4	0.0	0.0	0.0	0.0	0.3	0.0
InitQueuDel:	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	52.9	0.0	376.4	0.0	3.0	0.0	0.0	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:	0.0	0.0	0.0	52.9	0.0	376.4	0.0	3.0	0.0	0.0	4.2	0.0
LOS by Move:	A	A	A	D-	A	F	A	A	A	A	A	A
HCM2kAvgQ:	0	0	0	124	0	1147	0	46	0	0	186	0

Note: Queue reported is the distance per lane in feet.

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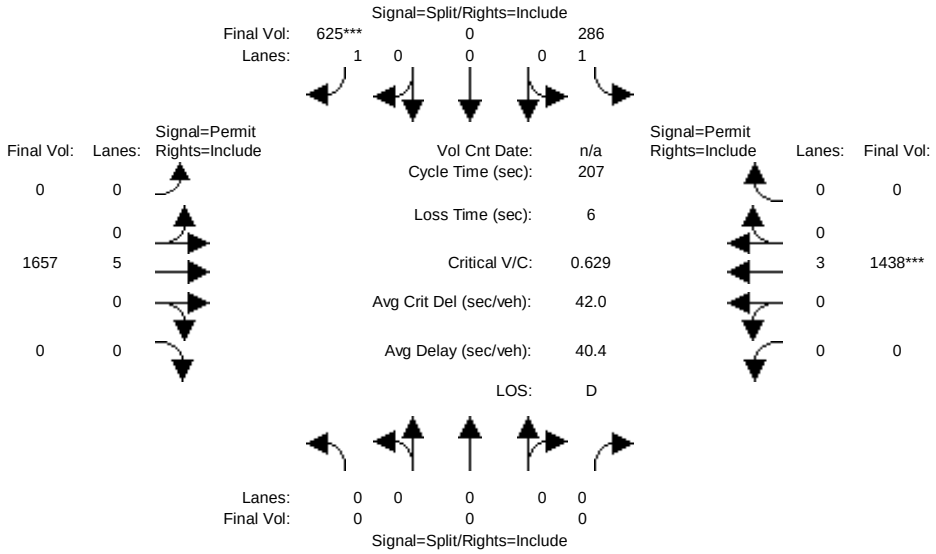
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #48: Stevens Creek Boulevard/Lawrence Expressway Ramps West



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps West					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	0	10	0	10	0	0	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	286	0	625	0	1512	0	0	1197	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	286	0	625	0	1512	0	0	1197	0
Added Vol:	0	0	0	0	0	0	0	145	0	0	241	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	286	0	625	0	1657	0	0	1438	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	0	0	286	0	625	0	1657	0	0	1438	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	286	0	625	0	1657	0	0	1438	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	286	0	625	0	1657	0	0	1438	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	5.00	0.00	0.00	3.00	0.00
Final Sat.:	0	0	0	1750	0	1750	0	9500	0	0	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.36	0.00	0.17	0.00	0.00	0.25	0.00
Crit Moves:						****					****	
Green Time:	0.0	0.0	0.0	117.5	0.0	117.5	0.0	83.0	0.0	0.0	83.0	0.0
Volume/Cap:	0.00	0.00	0.00	0.29	0.00	0.63	0.00	0.44	0.00	0.00	0.63	0.00
Uniform Del:	0.0	0.0	0.0	21.2	0.0	27.6	0.0	41.3	0.0	0.0	45.6	0.0
IncremntDel:	0.0	0.0	0.0	0.7	0.0	3.0	0.0	0.4	0.0	0.0	1.3	0.0
InitQueuDel:	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	22.0	0.0	30.7	0.0	41.7	0.0	0.0	46.9	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	22.0	0.0	30.7	0.0	41.7	0.0	0.0	46.9	0.0
LOS by Move:	A	A	A	C+	A	C	A	D	A	A	D	A
HCM2kAvgQ:	0	0	0	222	0	643	0	336	0	0	558	0

Note: Queue reported is the distance per lane in feet.

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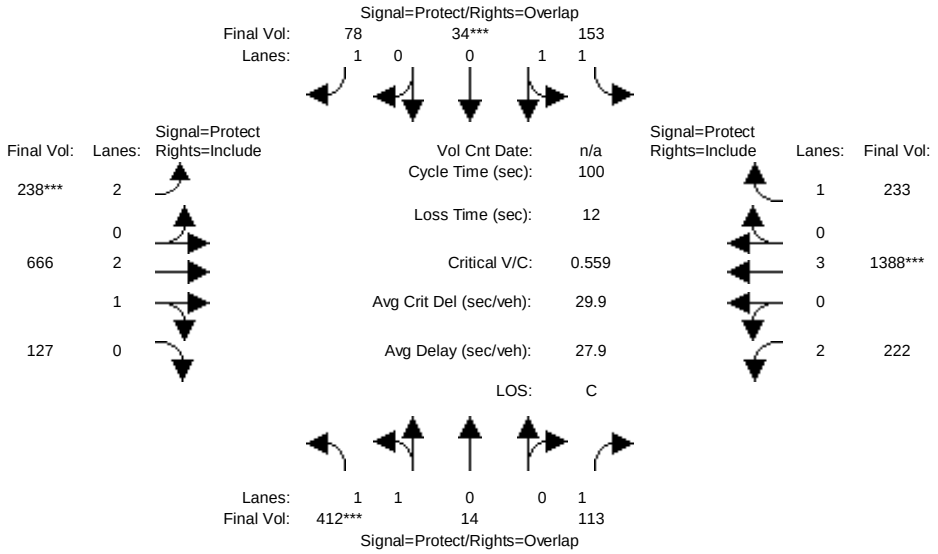
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #49: Lawrence Expressway Ramps/El Camino Real



Street Name:	Lawrence Expressway Ramp						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	412	14	113	153	34	78	238	666	127	222	1388	233
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	412	14	113	153	34	78	238	666	127	222	1388	233
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:	412	14	113	153	34	78	238	666	127	222	1388	233
User Adj:	1.00	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:	412	14	113	153	34	78	238	666	127	222	1388	233
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	412	14	113	153	34	78	238	666	127	222	1388	233
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	412	14	113	153	34	78	238	666	127	222	1388	233
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.93	0.95	0.92	0.83	0.99	0.95	0.83	1.00	0.92
Lanes:	1.94	0.06	1.00	1.64	0.36	1.00	2.00	2.50	0.50	2.00	3.00	1.00
Final Sat.:	3433	117	1750	2904	645	1750	3150	4702	897	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.06	0.05	0.05	0.04	0.08	0.14	0.14	0.07	0.24	0.13
Crit Moves:	****				****		****				****	
Green Time:	21.3	19.8	38.6	11.5	10.0	23.4	13.4	37.8	37.8	18.8	43.3	43.3
Volume/Cap:	0.56	0.61	0.17	0.46	0.53	0.19	0.56	0.37	0.37	0.37	0.56	0.31
Uniform Del:	35.2	36.6	20.1	41.3	42.8	30.7	40.5	22.5	22.5	35.4	21.3	18.6
IncremntDel:	3.0	3.9	0.5	3.6	5.5	1.0	5.3	0.5	0.5	1.8	0.9	1.1
InitQueuDel:	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:	38.2	40.4	20.7	44.9	48.3	31.7	45.9	23.0	23.0	37.2	22.2	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:	38.2	40.4	20.7	44.9	48.3	31.7	45.9	23.0	23.0	37.2	22.2	19.6
LOS by Move:	D+	D	C+	D	D	C	D	C	C	D+	C+	B-
HCM2kAvgQ:	172	180	61	85	92	53	123	150	150	96	272	126

Note: Queue reported is the distance per lane in feet.

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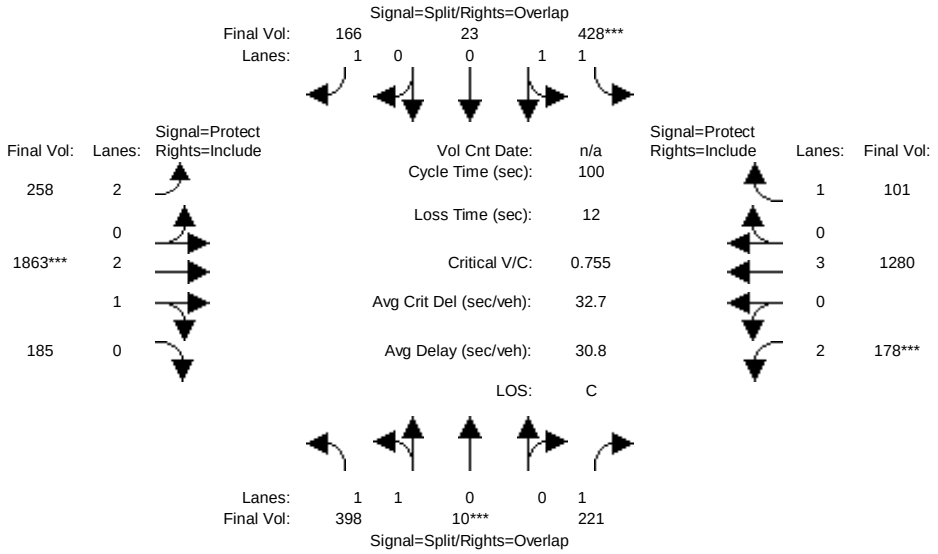
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #49: Lawrence Expressway Ramps/El Camino Real



Street Name:	Lawrence Expressway Ramp						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	398	10	221	428	23	166	258	1863	185	178	1280	101
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	398	10	221	428	23	166	258	1863	185	178	1280	101
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:	398	10	221	428	23	166	258	1863	185	178	1280	101
User Adj:	1.00	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:	398	10	221	428	23	166	258	1863	185	178	1280	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	398	10	221	428	23	166	258	1863	185	178	1280	101
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	398	10	221	428	23	166	258	1863	185	178	1280	101
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.93	0.95	0.92	0.83	0.99	0.95	0.83	1.00	0.92
Lanes:	1.95	0.05	1.00	1.90	0.10	1.00	2.00	2.72	0.28	2.00	3.00	1.00
Final Sat.:	3463	87	1750	3369	181	1750	3150	5093	506	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.11	0.11	0.13	0.13	0.13	0.09	0.08	0.37	0.37	0.06	0.22	0.06
Crit Moves:		****		****				****		****		
Green Time:	15.2	15.2	22.7	16.8	16.8	31.8	15.0	48.5	48.5	7.5	41.0	41.0
Volume/Cap:	0.75	0.75	0.56	0.75	0.75	0.30	0.55	0.75	0.75	0.75	0.55	0.14
Uniform Del:	40.6	40.6	34.2	39.6	39.6	25.7	39.4	20.9	20.9	45.4	22.5	18.5
IncremntDel:	9.4	9.4	5.5	8.6	8.6	1.4	4.5	2.0	2.0	19.9	0.9	0.4
InitQueuDel:	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	39.7	48.2	48.2	27.1	43.9	23.0	23.0	65.3	23.4	18.9
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:	50.0	50.0	39.7	48.2	48.2	27.1	43.9	23.0	23.0	65.3	23.4	18.9
LOS by Move:	D	D	D	D	D	C	D	C+	C+	E	C	B-
HCM2kAvgQ:	206	206	177	221	221	105	128	462	462	125	255	52

Note: Queue reported is the distance per lane in feet.

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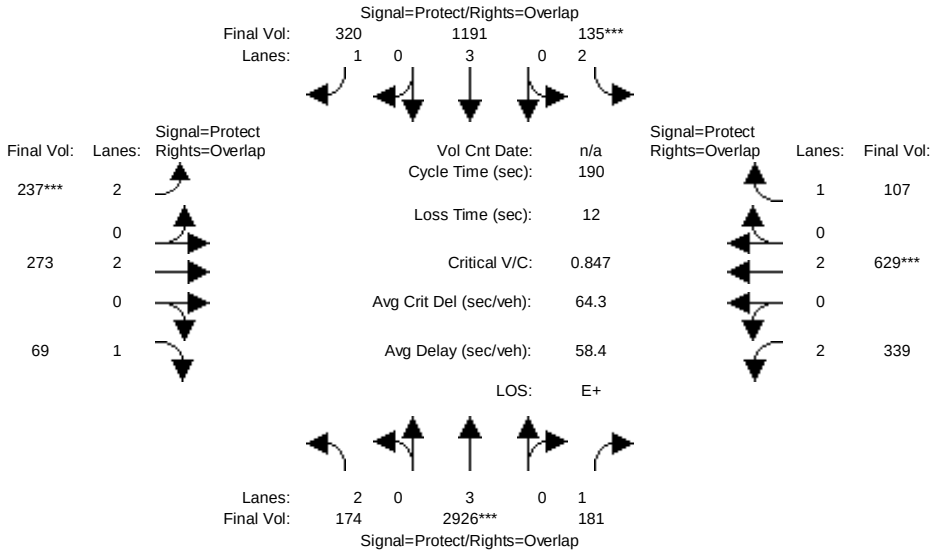
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #50: Lawrence Expressway/Homestead Road



Street Name:	Lawrence Expressway						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	22	107	107	17	102	102	23	43	43	23	43	43
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	158	3363	181	135	1369	308	230	261	69	339	609	107
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	158	3363	181	135	1369	308	230	261	69	339	609	107
Added Vol:	16	0	0	0	0	12	7	12	0	0	20	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	174	3363	181	135	1369	320	237	273	69	339	629	107
User Adj:	1.00	0.87	1.00	1.00	0.87	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:	174	2926	181	135	1191	320	237	273	69	339	629	107
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	174	2926	181	135	1191	320	237	273	69	339	629	107
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	174	2926	181	135	1191	320	237	273	69	339	629	107
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.51	0.10	0.04	0.21	0.18	0.08	0.07	0.04	0.11	0.17	0.06
Crit Moves:		****			****			****			****	
Green Time:	20.7	101	122.3	16.0	95.9	117.6	21.6	40.4	61.1	21.6	40.4	56.4
Volume/Cap:	0.51	0.97	0.16	0.51	0.41	0.30	0.66	0.34	0.12	0.95	0.78	0.21
Uniform Del:	84.9	45.9	14.3	88.5	31.3	18.0	85.8	67.4	48.4	88.9	75.0	53.2
IncremntDel:	5.3	10.6	0.3	6.8	0.4	0.7	9.2	1.1	0.4	35.5	7.3	0.9
InitQueuDel:	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:	90.2	56.5	14.6	95.3	31.7	18.7	95.0	68.5	48.8	124.4	82.2	54.1
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:	90.2	56.5	14.6	95.3	31.7	18.7	95.0	68.5	48.8	124.4	82.2	54.1
LOS by Move:	F	E+	B	F	C	B-	F	E	D	F	F	D-
HCM2kAvgQ:	163	1554	114	133	366	238	233	175	78	394	486	128

Note: Queue reported is the distance per lane in feet.

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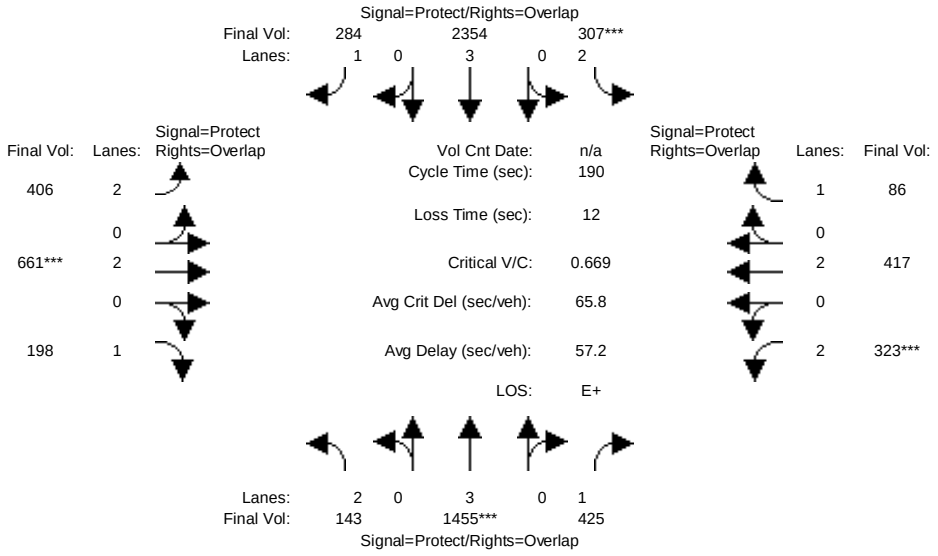
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #50: Lawrence Expressway/Homestead Road



Street Name:	Lawrence Expressway						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	17	95	95	27	105	105	27	38	38	30	41	41
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	89	1842	425	307	2980	244	362	588	198	323	350	86
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	89	1842	425	307	2980	244	362	588	198	323	350	86
Added Vol:	54	0	0	0	0	40	44	73	0	0	67	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	143	1842	425	307	2980	284	406	661	198	323	417	86
User Adj:	1.00	0.79	1.00	1.00	0.79	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:	143	1455	425	307	2354	284	406	661	198	323	417	86
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	143	1455	425	307	2354	284	406	661	198	323	417	86
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	143	1455	425	307	2354	284	406	661	198	323	417	86
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.26	0.24	0.10	0.41	0.16	0.13	0.17	0.11	0.10	0.11	0.05
Crit Moves:		****		****				****		****		
Green Time:	16.0	89.4	117.6	25.4	98.8	124.2	25.4	35.7	51.7	28.2	38.6	64.0
Volume/Cap:	0.54	0.54	0.39	0.73	0.79	0.25	0.96	0.92	0.42	0.69	0.54	0.15
Uniform Del:	88.7	38.1	19.4	84.0	39.7	14.5	87.0	80.6	60.3	81.6	72.1	46.7
IncremntDel:	7.7	0.8	1.1	10.6	2.3	0.5	35.8	19.6	2.7	8.1	2.7	0.5
InitQueuDel:	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:	96.4	38.8	20.5	94.6	42.0	15.0	122.8	100	63.0	89.7	74.8	47.3
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:	96.4	38.8	20.5	94.6	42.0	15.0	122.8	100	63.0	89.7	74.8	47.3
LOS by Move:	F	D+	C+	F	D	B	F	F	E	F	E	D
HCM2kAvgQ:	142	513	342	303	986	187	467	580	265	307	290	96

Note: Queue reported is the distance per lane in feet.

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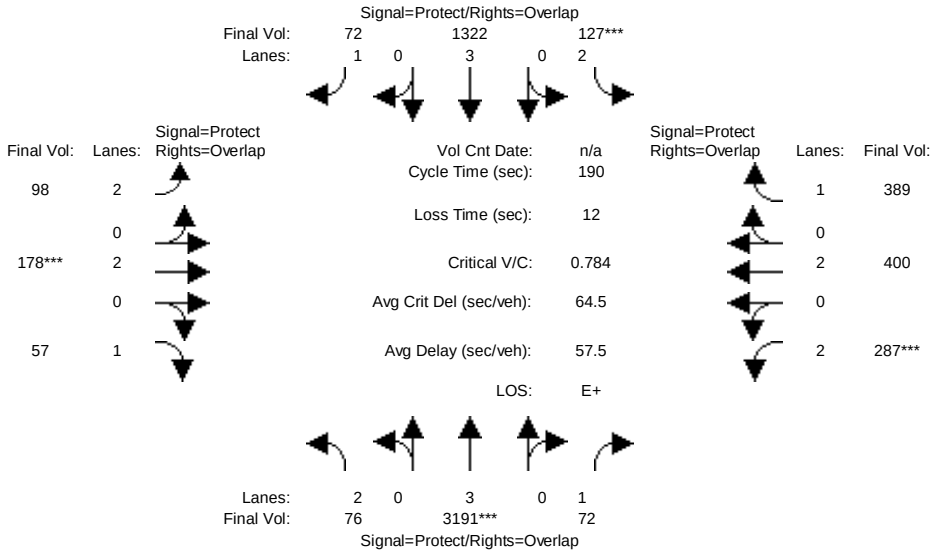
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #51: Lawrence Expressway/Pruneridge Avenue



Street Name:	Lawrence Expressway						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	19	113	113	16	111	111	19	37	37	24	42	42
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	76	3652	72	127	1519	72	98	173	57	287	392	389
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	76	3652	72	127	1519	72	98	173	57	287	392	389
Added Vol:	0	16	0	0	0	0	0	5	0	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	76	3668	72	127	1519	72	98	178	57	287	400	389
User Adj:	1.00	0.87	1.00	1.00	0.87	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:	76	3191	72	127	1322	72	98	178	57	287	400	389
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	3191	72	127	1322	72	98	178	57	287	400	389
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	76	3191	72	127	1322	72	98	178	57	287	400	389
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.56	0.04	0.04	0.23	0.04	0.03	0.05	0.03	0.09	0.11	0.22
Crit Moves:		****		****				****		****		
Green Time:	17.8	107	129.2	15.0	104	121.7	17.8	34.6	52.4	22.5	39.3	54.3
Volume/Cap:	0.26	1.00	0.06	0.51	0.42	0.06	0.33	0.26	0.12	0.77	0.51	0.78
Uniform Del:	85.5	44.3	10.9	89.7	27.1	13.7	86.1	71.2	55.0	86.8	71.4	66.6
IncremntDel:	2.1	15.2	0.1	7.3	0.4	0.1	3.0	0.9	0.5	14.3	2.3	11.3
InitQueuDel:	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	59.5	11.0	97.1	27.6	13.8	89.1	72.1	55.5	101.1	73.7	77.9
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:	87.6	59.5	11.0	97.1	27.6	13.8	89.1	72.1	55.5	101.1	73.7	77.9
LOS by Move:	F	E+	B+	F	C	B	F	E	E+	F	E	E-
HCM2kAvgQ:	69	1777	38	127	385	43	90	116	69	298	275	620

Note: Queue reported is the distance per lane in feet.

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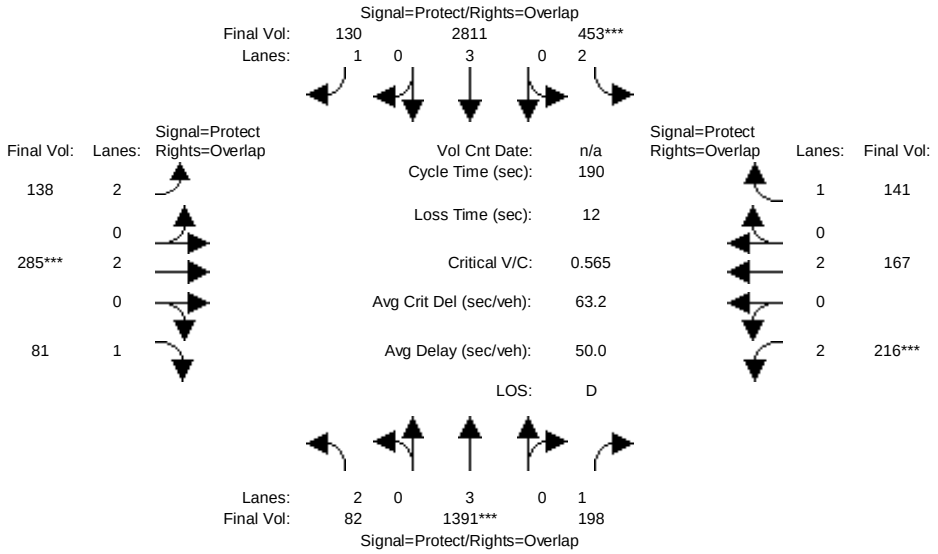
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #51: Lawrence Expressway/Pruneridge Avenue



Street Name:	Lawrence Expressway						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	18	107	107	28	117	117	17	33	33	22	38	38
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	82	1752	198	453	3428	130	138	256	81	216	140	141
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	82	1752	198	453	3428	130	138	256	81	216	140	141
Added Vol:	0	54	0	0	0	0	0	29	0	0	27	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	82	1806	198	453	3428	130	138	285	81	216	167	141
User Adj:	1.00	0.77	1.00	1.00	0.82	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:	82	1391	198	453	2811	130	138	285	81	216	167	141
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	82	1391	198	453	2811	130	138	285	81	216	167	141
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	82	1391	198	453	2811	130	138	285	81	216	167	141
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.24	0.11	0.14	0.49	0.07	0.04	0.08	0.05	0.07	0.04	0.08
Crit Moves:		****		****				****		****		
Green Time:	16.9	101	121.3	26.3	110	126.0	16.0	31.0	48.0	20.7	35.7	62.1
Volume/Cap:	0.29	0.46	0.18	1.04	0.85	0.11	0.52	0.46	0.18	0.63	0.23	0.25
Uniform Del:	86.0	29.5	14.9	87.0	35.3	12.4	88.6	76.4	59.2	86.1	69.6	49.8
IncremntDel:	2.6	0.5	0.3	53.1	3.0	0.2	7.1	2.4	0.9	8.5	0.8	1.0
InitQueuDel:	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:	88.7	30.1	15.2	140.1	38.3	12.6	95.7	78.9	60.1	94.6	70.4	50.8
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:	88.7	30.1	15.2	140.1	38.3	12.6	95.7	78.9	60.1	94.6	70.4	50.8
LOS by Move:	F	C	B	F	D+	B	F	E-	E	F	E	D
HCM2kAvgQ:	75	426	128	546	1208	75	136	201	102	212	107	165

Note: Queue reported is the distance per lane in feet.

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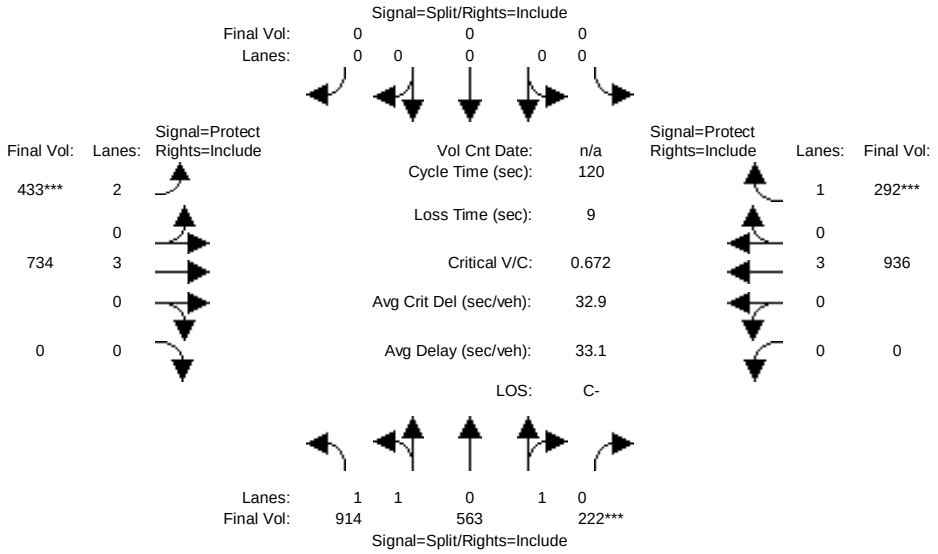
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #52: Stevens Creek Boulevard/Lawrence Expressway Ramps East



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps East					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	0	0	0	7	10	0	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	883	563	222	0	0	0	433	710	0	0	897	292
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	883	563	222	0	0	0	433	710	0	0	897	292
Added Vol:	31	0	0	0	0	0	0	24	0	0	39	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	914	563	222	0	0	0	433	734	0	0	936	292
User Adj:	1.00	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:	914	563	222	0	0	0	433	734	0	0	936	292
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	914	563	222	0	0	0	433	734	0	0	936	292
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	914	563	222	0	0	0	433	734	0	0	936	292
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.95	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	1.63	0.98	0.39	0.00	0.00	0.00	2.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	2878	1773	699	0	0	0	3150	5700	0	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.32	0.32	0.32	0.00	0.00	0.00	0.14	0.13	0.00	0.00	0.16	0.17
Crit Moves:			****				****					****
Green Time:	56.7	56.7	56.7	0.0	0.0	0.0	24.5	54.3	0.0	0.0	29.8	29.8
Volume/Cap:	0.67	0.67	0.67	0.00	0.00	0.00	0.67	0.28	0.00	0.00	0.66	0.67
Uniform Del:	24.5	24.5	24.5	0.0	0.0	0.0	44.0	20.6	0.0	0.0	40.6	40.7
IncremntDel:	1.4	1.4	1.4	0.0	0.0	0.0	5.5	0.3	0.0	0.0	2.4	8.1
InitQueuDel:	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	1.00	1.00	0.00	0.00	1.00	1.00
Delay/Veh:	25.9	25.9	25.9	0.0	0.0	0.0	49.6	20.9	0.0	0.0	43.0	48.8
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:	25.9	25.9	25.9	0.0	0.0	0.0	49.6	20.9	0.0	0.0	43.0	48.8
LOS by Move:	C	C	C	A	A	A	D	C+	A	A	D	D
HCM2kAvgQ:	438	438	438	0	0	0	235	140	0	0	279	285

Note: Queue reported is the distance per lane in feet.

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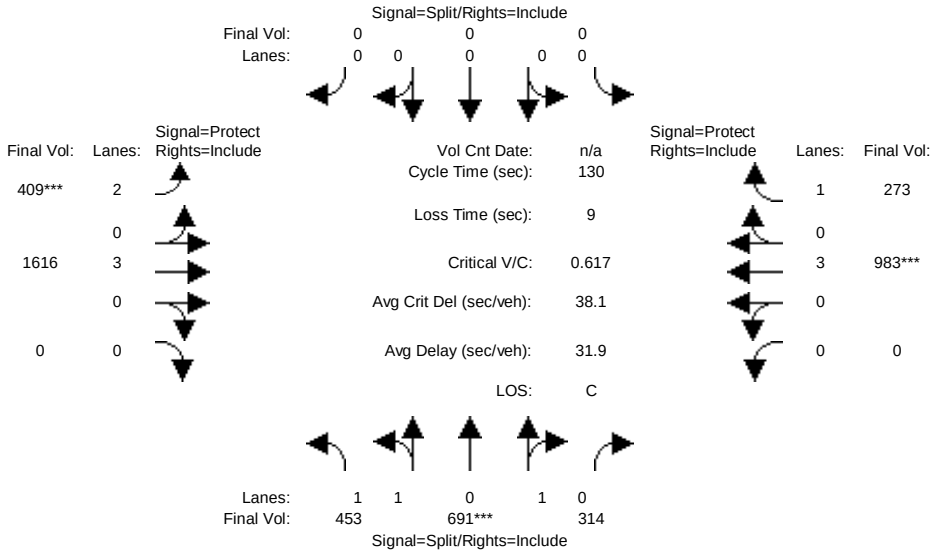
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #52: Stevens Creek Boulevard/Lawrence Expressway Ramps East



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps East					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	50	50	50	0	0	0	30	70	0	0	40	40
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	346	691	314	0	0	0	409	1471	0	0	849	273
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	346	691	314	0	0	0	409	1471	0	0	849	273
Added Vol:	107	0	0	0	0	0	0	145	0	0	134	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	453	691	314	0	0	0	409	1616	0	0	983	273
User Adj:	1.00	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:	453	691	314	0	0	0	409	1616	0	0	983	273
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	453	691	314	0	0	0	409	1616	0	0	983	273
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	453	691	314	0	0	0	409	1616	0	0	983	273
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	1.36	0.64	0.00	0.00	0.00	2.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	1750	2543	1156	0	0	0	3150	5700	0	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.26	0.27	0.27	0.00	0.00	0.00	0.13	0.28	0.00	0.00	0.17	0.16
Crit Moves:		****					****				****	
Green Time:	51.0	51.0	51.0	0.0	0.0	0.0	30.0	70.0	0.0	0.0	40.0	40.0
Volume/Cap:	0.66	0.69	0.69	0.00	0.00	0.00	0.56	0.53	0.00	0.00	0.56	0.51
Uniform Del:	32.4	33.0	33.0	0.0	0.0	0.0	44.2	19.3	0.0	0.0	37.6	36.9
IncremntDel:	1.6	1.9	1.9	0.0	0.0	0.0	3.1	0.7	0.0	0.0	1.3	3.4
InitQueuDel:	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	1.00	1.00	0.00	0.00	1.00	1.00
Delay/Veh:	34.0	34.9	34.9	0.0	0.0	0.0	47.3	20.0	0.0	0.0	38.9	40.3
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:	34.0	34.9	34.9	0.0	0.0	0.0	47.3	20.0	0.0	0.0	38.9	40.3
LOS by Move:	C-	C-	C-	A	A	A	D	B-	A	A	D+	D
HCM2kAvgQ:	410	441	441	0	0	0	220	350	0	0	278	245

Note: Queue reported is the distance per lane in feet.

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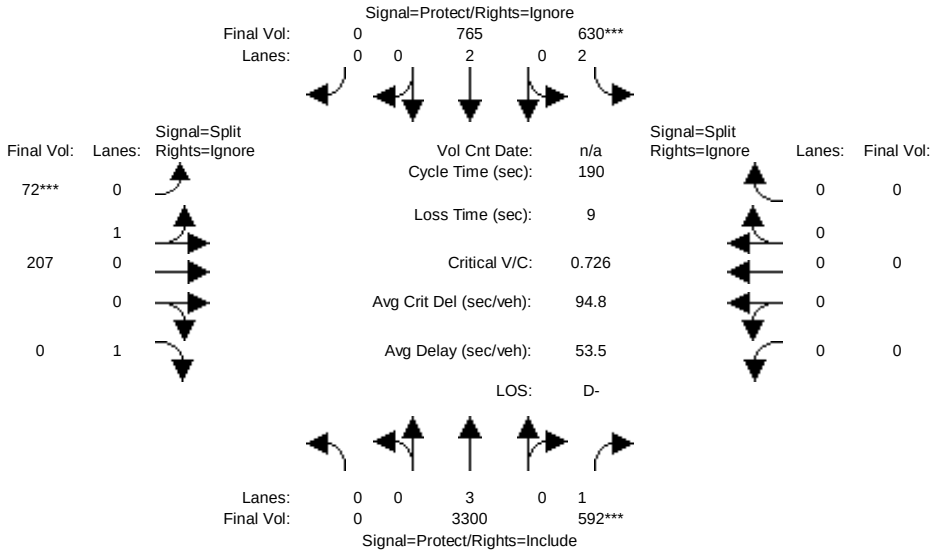
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #53: Lawrence Expressway/I-280 Ramps South



Street Name:	Lawrence Expressway						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	102	120	36	156	0	34	34	34	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	3253	592	630	765	0	72	189	272	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	3253	592	630	765	0	72	189	272	0	0	0
Added Vol:	0	47	0	0	0	0	0	18	29	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	3300	592	630	765	0	72	207	301	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	3300	592	630	765	0	72	207	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	3300	592	630	765	0	72	207	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	3300	592	630	765	0	72	207	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.95	0.95	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	0.26	0.74	1.00	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	465	1335	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.58	0.34	0.20	0.20	0.00	0.16	0.16	0.00	0.00	0.00	0.00
Crit Moves:			****	****			****					
Green Time:	0.0	115	114.6	34.4	149	0.0	32.5	32.5	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.96	0.56	1.11	0.26	0.00	0.91	0.91	0.00	0.00	0.00	0.00
Uniform Del:	0.0	37.2	23.7	81.5	5.8	0.0	81.0	81.0	0.0	0.0	0.0	0.0
IncremntDel:	0.0	8.5	2.2	70.0	0.2	0.0	32.3	32.3	0.0	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	45.8	25.9	151.5	6.0	0.0	113.2	113	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	45.8	25.9	151.5	6.0	0.0	113.2	113	0.0	0.0	0.0	0.0
LOS by Move:	A	D	C	F	A	A	F	F	A	A	A	A
HCM2kAvgQ:	0	1664	564	763	152	0	511	511	0	0	0	0

Note: Queue reported is the distance per lane in feet.

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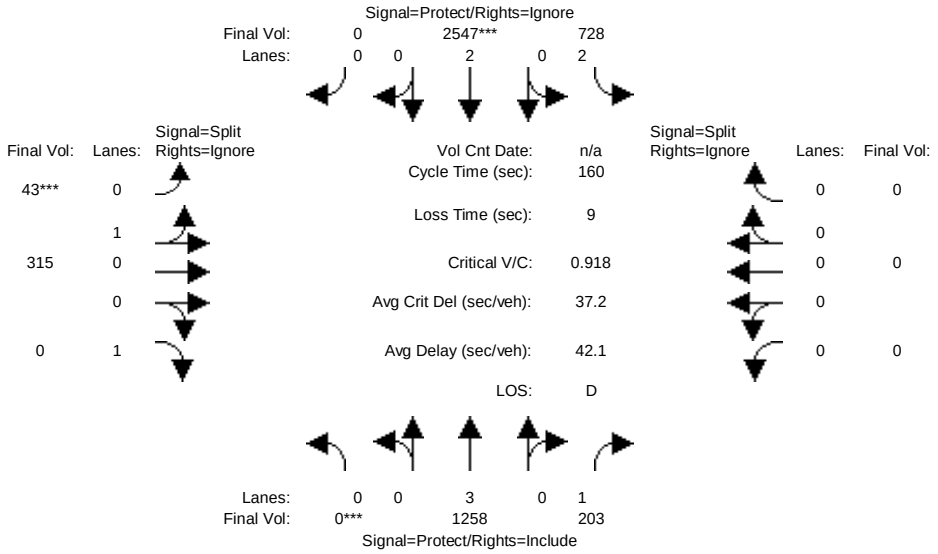
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #53: Lawrence Expressway/I-280 Ramps South



Street Name:	Lawrence Expressway						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	43	43	50	119	0	41	41	41	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1097	203	728	2547	0	43	206	643	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1097	203	728	2547	0	43	206	643	0	0	0
Added Vol:	0	161	0	0	0	0	0	109	174	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1258	203	728	2547	0	43	315	817	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	1258	203	728	2547	0	43	315	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1258	203	728	2547	0	43	315	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	1258	203	728	2547	0	43	315	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.95	0.95	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	0.12	0.88	1.00	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	216	1584	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.22	0.12	0.23	0.67	0.00	0.20	0.20	0.00	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green Time:	0.0	52.1	52.1	60.6	113	0.0	38.8	38.8	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.68	0.36	0.61	0.95	0.00	0.82	0.82	0.00	0.00	0.00	0.00
Uniform Del:	0.0	49.3	43.5	42.4	22.4	0.0	60.5	60.5	0.0	0.0	0.0	0.0
IncremntDel:	0.0	2.0	1.7	2.3	9.3	0.0	15.7	15.7	0.0	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	51.3	45.2	44.8	31.7	0.0	76.2	76.2	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	51.3	45.2	44.8	31.7	0.0	76.2	76.2	0.0	0.0	0.0	0.0
LOS by Move:	A	D-	D	D	C	A	E-	E-	A	A	A	A
HCM2kAvgQ:	0	475	211	454	1572	0	505	505	0	0	0	0

Note: Queue reported is the distance per lane in feet.

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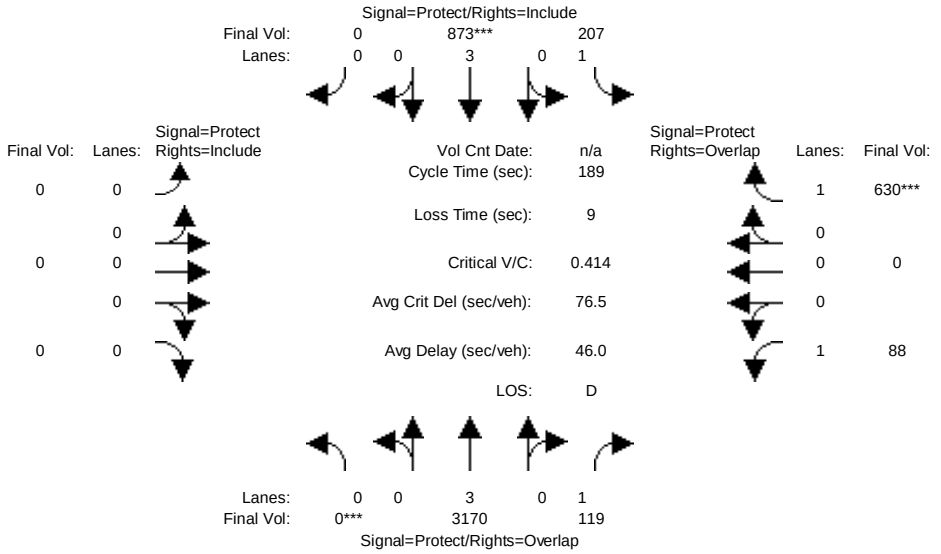
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #54: Lawrence Expressway/Mitty Way



Street Name:	Lawrence Expressway						Mitty Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	129	129	32	161	0	0	0	0	27	0	27
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	3123	119	207	844	0	0	0	0	88	0	630
Growth Adj:	1.00	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	3123	119	207	844	0	0	0	0	88	0	630
Added Vol:	0	47	0	0	29	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	3170	119	207	873	0	0	0	0	88	0	630
User Adj:	1.00	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	3170	119	207	873	0	0	0	0	88	0	630
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	3170	119	207	873	0	0	0	0	88	0	630
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	3170	119	207	873	0	0	0	0	88	0	630
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	3.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5700	0	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.56	0.07	0.12	0.15	0.00	0.00	0.00	0.00	0.05	0.00	0.36
Crit Moves:	****				****							****
Green Time:	0.0	124	149.7	30.7	154	0.0	0.0	0.0	0.0	25.9	0.0	56.6
Volume/Cap:	0.00	0.85	0.09	0.73	0.19	0.00	0.00	0.00	0.00	0.37	0.00	1.20
Uniform Del:	0.0	26.4	4.6	78.4	3.9	0.0	0.0	0.0	0.0	77.2	0.0	69.0
IncremntDel:	0.0	2.6	0.1	15.1	0.1	0.0	0.0	0.0	0.0	4.3	0.0	108.1
InitQueuDel:	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	29.1	4.7	93.5	4.0	0.0	0.0	0.0	0.0	81.5	0.0	177.1
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	29.1	4.7	93.5	4.0	0.0	0.0	0.0	0.0	81.5	0.0	177.1
LOS by Move:	A	C	A	F	A	A	A	A	A	F	A	F
HCM2kAvgQ:	0	1242	42	347	92	0	0	0	0	133	0	1408

Note: Queue reported is the distance per lane in feet.

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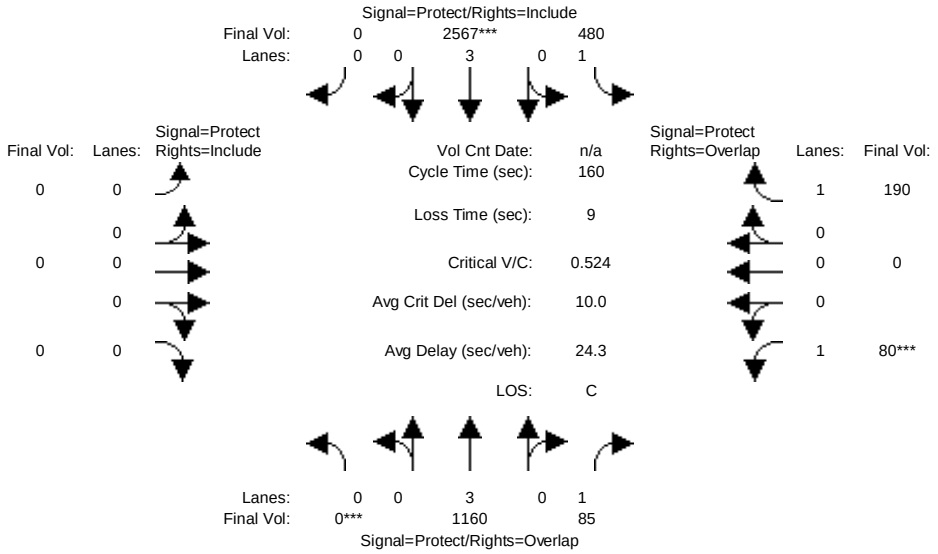
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #54: Lawrence Expressway/Mitty Way



Street Name:	Lawrence Expressway						Mitty Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	82	82	22	131	0	0	0	0	29	0	29
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	999	85	480	2393	0	0	0	0	80	0	190
Growth Adj:	1.00	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	999	85	480	2393	0	0	0	0	80	0	190
Added Vol:	0	161	0	0	174	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1160	85	480	2567	0	0	0	0	80	0	190
User Adj:	1.00	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	1160	85	480	2567	0	0	0	0	80	0	190
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1160	85	480	2567	0	0	0	0	80	0	190
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1160	85	480	2567	0	0	0	0	80	0	190
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	3.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5700	0	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.20	0.05	0.27	0.45	0.00	0.00	0.00	0.00	0.05	0.00	0.11
Crit Moves:	****				****					****		
Green Time:	0.0	79.2	106.7	44.8	124	0.0	0.0	0.0	0.0	27.5	0.0	72.2
Volume/Cap:	0.00	0.41	0.07	0.98	0.58	0.00	0.00	0.00	0.00	0.27	0.00	0.24
Uniform Del:	0.0	27.0	9.9	60.4	7.8	0.0	0.0	0.0	0.0	60.8	0.0	28.5
IncremntDel:	0.0	0.4	0.1	36.0	0.6	0.0	0.0	0.0	0.0	2.2	0.0	0.7
InitQueuDel:	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	27.5	10.0	96.3	8.3	0.0	0.0	0.0	0.0	62.9	0.0	29.2
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	27.5	10.0	96.3	8.3	0.0	0.0	0.0	0.0	62.9	0.0	29.2
LOS by Move:	A	C	A	F	A	A	A	A	A	E	A	C
HCM2kAvgQ:	0	305	40	793	445	0	0	0	0	97	0	157

Note: Queue reported is the distance per lane in feet.

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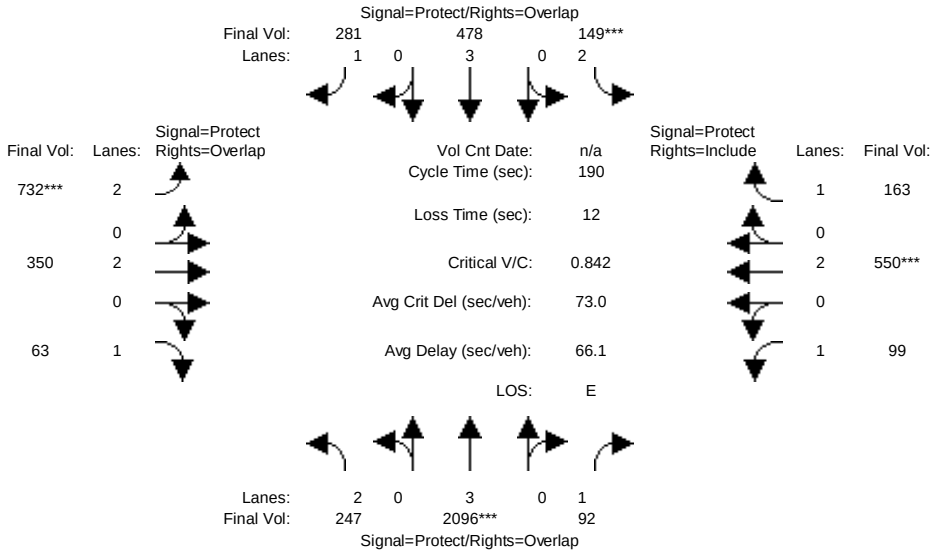
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #55: Lawrence Expressway/Bollinger Road



Street Name:	Lawrence Expressway						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	22	82	82	18	78	78	52	71	71	19	38	38
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	247	2057	92	144	454	281	732	350	63	99	550	155
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	247	2057	92	144	454	281	732	350	63	99	550	155
Added Vol:	0	39	0	5	24	0	0	0	0	0	0	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	247	2096	92	149	478	281	732	350	63	99	550	163
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	247	2096	92	149	478	281	732	350	63	99	550	163
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	247	2096	92	149	478	281	732	350	63	99	550	163
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	247	2096	92	149	478	281	732	350	63	99	550	163
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.37	0.05	0.05	0.08	0.16	0.23	0.09	0.04	0.06	0.14	0.09
Crit Moves:		****		****			****				****	
Green Time:	20.7	77.1	95.0	16.9	73.4	122.3	48.9	66.8	87.5	17.9	35.7	35.7
Volume/Cap:	0.72	0.91	0.11	0.53	0.22	0.25	0.90	0.26	0.08	0.60	0.77	0.50
Uniform Del:	87.0	56.4	26.7	88.0	41.5	15.3	72.6	46.8	30.5	87.9	77.8	73.4
IncremntDel:	12.3	6.5	0.2	7.0	0.2	0.5	15.3	0.5	0.2	15.2	7.8	5.2
InitQueuDel:	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:	99.3	62.9	26.9	95.0	41.8	15.8	87.8	47.3	30.7	103.1	85.7	78.7
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:	99.3	62.9	26.9	95.0	41.8	15.8	87.8	47.3	30.7	103.1	85.7	78.7
LOS by Move:	F	E	C	F	D	B	F	D	C	F	F	E-
HCM2kAvgQ:	252	1067	77	146	157	190	725	184	56	178	433	246

Note: Queue reported is the distance per lane in feet.

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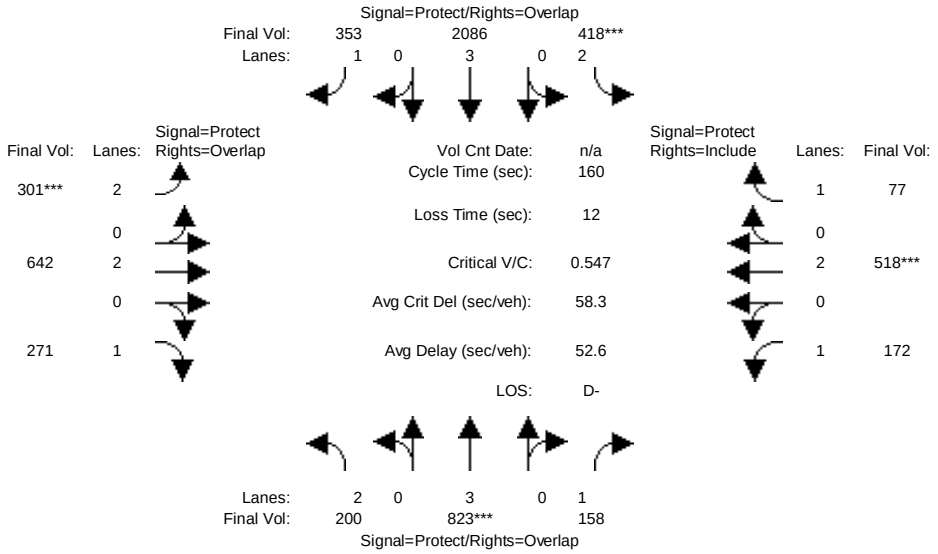
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #55: Lawrence Expressway/Bollinger Road



Street Name:	Lawrence Expressway						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	21	67	67	28	74	74	25	42	42	23	39	39
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	200	689	158	389	1941	353	301	642	271	172	518	50
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	200	689	158	389	1941	353	301	642	271	172	518	50
Added Vol:	0	134	0	29	145	0	0	0	0	0	0	27
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	200	823	158	418	2086	353	301	642	271	172	518	77
User Adj:	1.00	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:	200	823	158	418	2086	353	301	642	271	172	518	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	200	823	158	418	2086	353	301	642	271	172	518	77
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	200	823	158	418	2086	353	301	642	271	172	518	77
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.14	0.09	0.13	0.37	0.20	0.10	0.17	0.15	0.10	0.14	0.04
Crit Moves:		****		****			****				****	
Green Time:	19.7	62.3	83.4	27.0	69.6	92.8	23.3	38.5	58.2	21.1	36.3	36.3
Volume/Cap:	0.51	0.37	0.17	0.79	0.84	0.35	0.66	0.70	0.43	0.75	0.60	0.19
Uniform Del:	70.6	37.5	21.7	68.5	43.3	19.0	69.5	59.7	41.2	71.9	59.5	53.8
IncremntDel:	4.8	0.5	0.4	11.2	3.7	0.9	7.2	4.5	2.1	19.6	3.1	1.1
InitQueuDel:	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:	75.4	37.9	22.1	79.8	47.0	19.9	76.7	64.2	43.3	91.5	62.6	54.9
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:	75.4	37.9	22.1	79.8	47.0	19.9	76.7	64.2	43.3	91.5	62.6	54.9
LOS by Move:	E-	D+	C+	E-	D	B-	E-	E	D	F	E	D-
HCM2kAvgQ:	160	248	113	358	846	254	247	403	283	272	312	87

Note: Queue reported is the distance per lane in feet.

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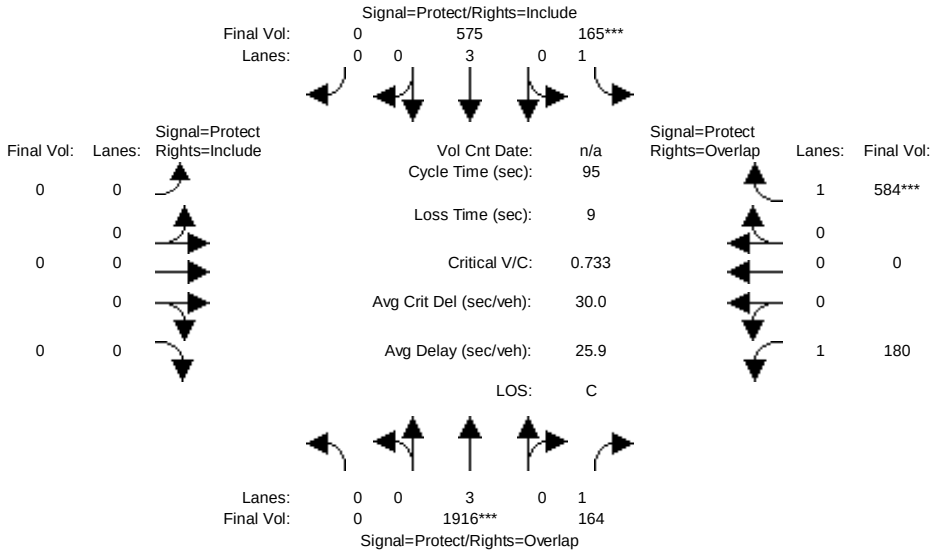
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #56: Lawrence Expressway/Doyle Road



Street Name:	Lawrence Expressway						Doyle Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	61	61	19	79	0	0	0	0	15	0	15
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1877	164	165	551	0	0	0	0	180	0	584
Growth Adj:	1.00	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	1877	164	165	551	0	0	0	0	180	0	584
Added Vol:	0	39	0	0	24	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1916	164	165	575	0	0	0	0	180	0	584
User Adj:	1.00	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	1916	164	165	575	0	0	0	0	180	0	584
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1916	164	165	575	0	0	0	0	180	0	584
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1916	164	165	575	0	0	0	0	180	0	584
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	3.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5700	0	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.34	0.09	0.09	0.10	0.00	0.00	0.00	0.00	0.10	0.00	0.33
Crit Moves:		****		****								****
Green Time:	0.0	55.7	69.4	17.4	73.1	0.0	0.0	0.0	0.0	13.7	0.0	31.1
Volume/Cap:	0.00	0.57	0.13	0.52	0.13	0.00	0.00	0.00	0.00	0.71	0.00	1.02
Uniform Del:	0.0	13.4	4.2	38.4	3.1	0.0	0.0	0.0	0.0	42.4	0.0	35.0
IncremntDel:	0.0	0.7	0.2	5.8	0.1	0.0	0.0	0.0	0.0	15.8	0.0	43.0
InitQueuDel:	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	14.1	4.4	44.2	3.1	0.0	0.0	0.0	0.0	58.2	0.0	78.0
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	14.1	4.4	44.2	3.1	0.0	0.0	0.0	0.0	58.2	0.0	78.0
LOS by Move:	A	B	A	D	A	A	A	A	A	E+	A	E-
HCM2kAvgQ:	0	320	42	142	39	0	0	0	0	186	0	702

Note: Queue reported is the distance per lane in feet.

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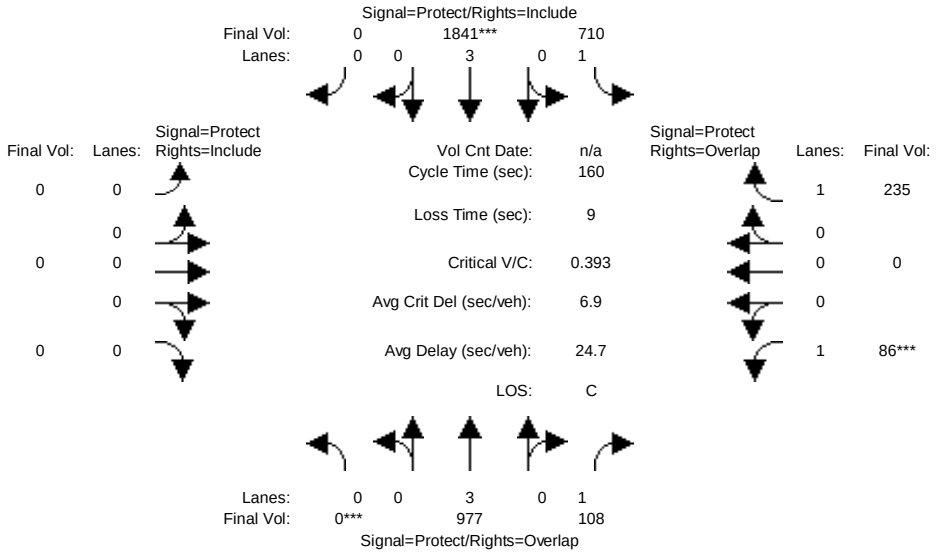
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #56: Lawrence Expressway/Doyle Road



Street Name:	Lawrence Expressway						Doyle Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	31	31	38	141	0	0	0	0	19	0	19
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	843	108	710	1696	0	0	0	0	86	0	235
Growth Adj:	1.00	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	843	108	710	1696	0	0	0	0	86	0	235
Added Vol:	0	134	0	0	145	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	977	108	710	1841	0	0	0	0	86	0	235
User Adj:	1.00	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	977	108	710	1841	0	0	0	0	86	0	235
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	977	108	710	1841	0	0	0	0	86	0	235
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	977	108	710	1841	0	0	0	0	86	0	235
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	3.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5700	0	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.17	0.06	0.41	0.32	0.00	0.00	0.00	0.00	0.05	0.00	0.13
Crit Moves:	****				****					****		
Green Time:	0.0	41.6	59.6	91.9	133	0.0	0.0	0.0	0.0	18.0	0.0	109.9
Volume/Cap:	0.00	0.66	0.17	0.71	0.39	0.00	0.00	0.00	0.00	0.44	0.00	0.20
Uniform Del:	0.0	55.9	35.5	25.7	3.4	0.0	0.0	0.0	0.0	70.0	0.0	9.6
IncremntDel:	0.0	2.3	0.5	4.2	0.2	0.0	0.0	0.0	0.0	6.9	0.0	0.4
InitQueuDel:	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	58.2	36.0	29.9	3.7	0.0	0.0	0.0	0.0	76.9	0.0	9.9
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	58.2	36.0	29.9	3.7	0.0	0.0	0.0	0.0	76.9	0.0	9.9
LOS by Move:	A	E+	D+	C	A	A	A	A	A	E-	A	A
HCM2kAvgQ:	0	386	97	705	192	0	0	0	0	121	0	114

Note: Queue reported is the distance per lane in feet.

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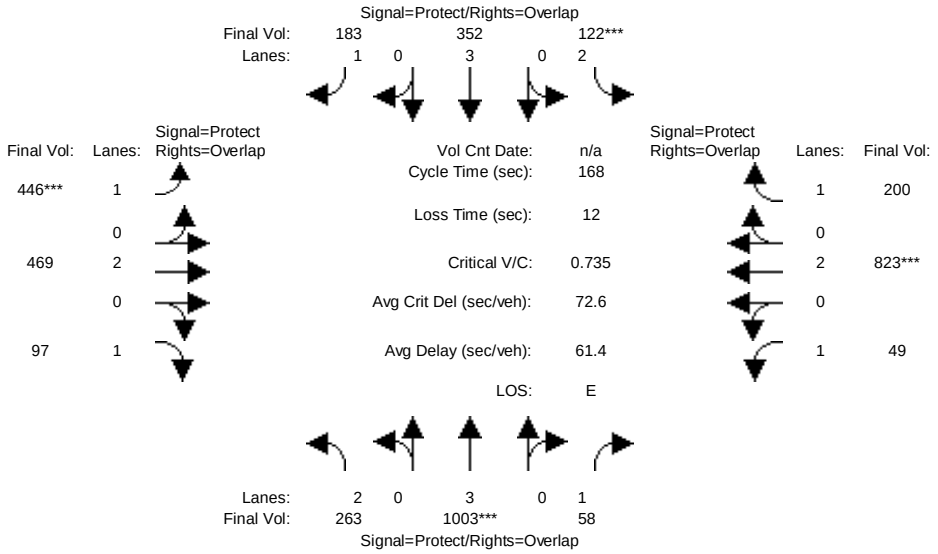
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #57: Lawrence Expressway/Prospect Road



Street Name:	Lawrence Expressway						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	22	57	57	21	56	56	48	75	75	16	43	43
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	263	964	58	122	328	183	446	469	97	49	823	200
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	263	964	58	122	328	183	446	469	97	49	823	200
Added Vol:	0	39	0	0	24	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	263	1003	58	122	352	183	446	469	97	49	823	200
User Adj:	1.00	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:	263	1003	58	122	352	183	446	469	97	49	823	200
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	263	1003	58	122	352	183	446	469	97	49	823	200
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	263	1003	58	122	352	183	446	469	97	49	823	200
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.18	0.03	0.04	0.06	0.10	0.25	0.12	0.06	0.03	0.22	0.11
Crit Moves:		****		****			****				****	
Green Time:	20.4	52.9	67.8	19.5	52.0	96.5	44.6	69.6	90.0	14.9	39.9	59.4
Volume/Cap:	0.69	0.56	0.08	0.33	0.20	0.18	0.96	0.30	0.10	0.32	0.91	0.32
Uniform Del:	76.2	51.5	33.3	73.6	46.0	18.3	65.6	35.4	20.6	77.4	67.2	42.7
IncremntDel:	9.7	1.3	0.2	2.4	0.3	0.4	33.1	0.5	0.2	5.3	15.0	1.4
InitQueuDel:	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:	85.9	52.8	33.6	76.0	46.3	18.7	98.7	35.9	20.9	82.7	82.1	44.1
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:	85.9	52.8	33.6	76.0	46.3	18.7	98.7	35.9	20.9	82.7	82.1	44.1
LOS by Move:	F	D-	C-	E-	D	B-	F	D+	C+	F	F	D
HCM2kAvgQ:	237	380	51	97	115	124	766	207	68	74	631	211

Note: Queue reported is the distance per lane in feet.

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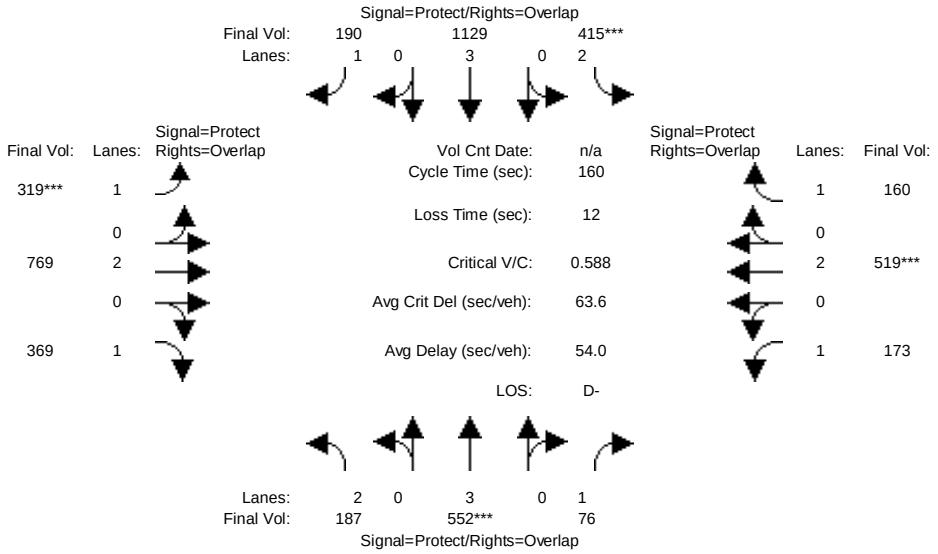
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #57: Lawrence Expressway/Prospect Road



Street Name:	Lawrence Expressway						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	20	49	49	34	62	62	38	52	52	26	39	39
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	187	418	76	415	984	190	319	769	369	173	519	160
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	187	418	76	415	984	190	319	769	369	173	519	160
Added Vol:	0	134	0	0	145	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	187	552	76	415	1129	190	319	769	369	173	519	160
User Adj:	1.00	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:	187	552	76	415	1129	190	319	769	369	173	519	160
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	187	552	76	415	1129	190	319	769	369	173	519	160
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	187	552	76	415	1129	190	319	769	369	173	519	160
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.10	0.04	0.13	0.20	0.11	0.18	0.20	0.21	0.10	0.14	0.09
Crit Moves:		****		****			****				****	
Green Time:	18.7	45.3	69.4	31.4	58.0	94.1	36.1	48.1	66.8	24.0	36.1	67.5
Volume/Cap:	0.51	0.34	0.10	0.67	0.55	0.18	0.81	0.67	0.50	0.66	0.61	0.22
Uniform Del:	71.7	49.2	29.0	64.3	43.8	16.5	63.5	53.1	37.2	69.3	60.1	31.8
IncremntDel:	4.9	0.6	0.3	5.7	1.0	0.4	16.2	3.2	2.5	12.2	3.2	0.7
InitQueuDel:	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:	76.6	49.8	29.3	70.0	44.8	16.9	79.7	56.2	39.7	81.5	63.3	32.5
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:	76.6	49.8	29.3	70.0	44.8	16.9	79.7	56.2	39.7	81.5	63.3	32.5
LOS by Move:	E-	D	C	E	D	B	E-	E+	D	F	E	C-
HCM2kAvgQ:	151	188	61	324	388	120	475	453	380	255	316	140

Note: Queue reported is the distance per lane in feet.

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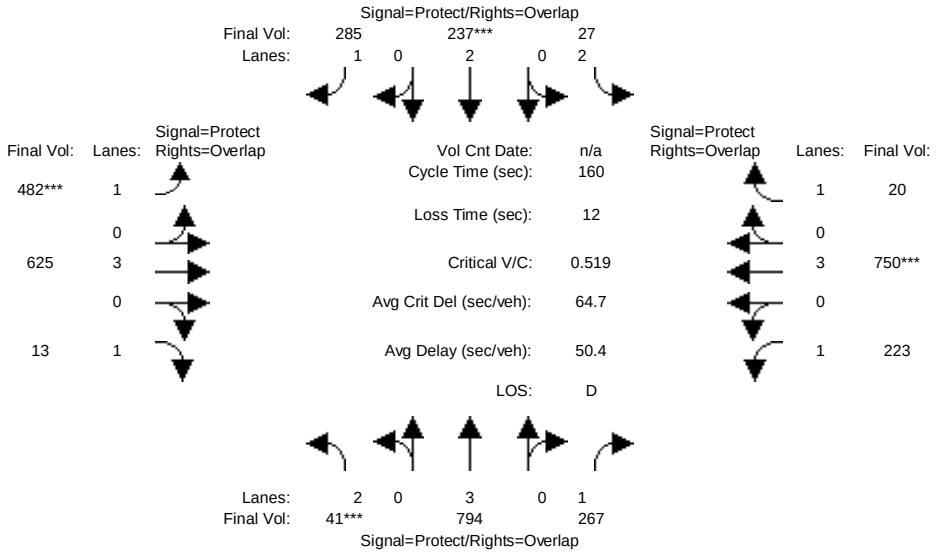
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #58: Lawrence Expressway/Saratoga Avenue



Street Name:	Lawrence Expressway						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	14	61	61	9	55	55	51	61	61	29	39	39
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	41	770	267	27	223	275	466	625	13	223	750	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	770	267	27	223	275	466	625	13	223	750	20
Added Vol:	0	24	0	0	14	10	16	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	41	794	267	27	237	285	482	625	13	223	750	20
User Adj:	1.00	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:	41	794	267	27	237	285	482	625	13	223	750	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	794	267	27	237	285	482	625	13	223	750	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	41	794	267	27	237	285	482	625	13	223	750	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	5700	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.14	0.15	0.01	0.06	0.16	0.28	0.11	0.01	0.13	0.13	0.01
Crit Moves:	****				****		****				****	
Green Time:	13.0	55.9	83.2	8.3	51.2	99.5	48.4	57.4	70.4	27.3	36.3	44.5
Volume/Cap:	0.16	0.40	0.29	0.17	0.20	0.26	0.91	0.31	0.02	0.75	0.58	0.04
Uniform Del:	73.5	42.3	23.4	78.0	42.4	14.7	57.8	39.7	27.2	67.8	59.2	45.3
IncremntDel:	1.3	0.6	0.8	2.2	0.4	0.6	22.4	0.4	0.0	15.7	1.9	0.2
InitQueuDel:	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:	74.9	42.9	24.2	80.2	42.8	15.3	80.1	40.1	27.2	83.5	61.1	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:	74.9	42.9	24.2	80.2	42.8	15.3	80.1	40.1	27.2	83.5	61.1	45.5
LOS by Move:	E	D	C	F	D	B	F	D	C	F	E	D
HCM2kAvgQ:	32	255	206	23	109	176	739	190	10	335	299	20

Note: Queue reported is the distance per lane in feet.

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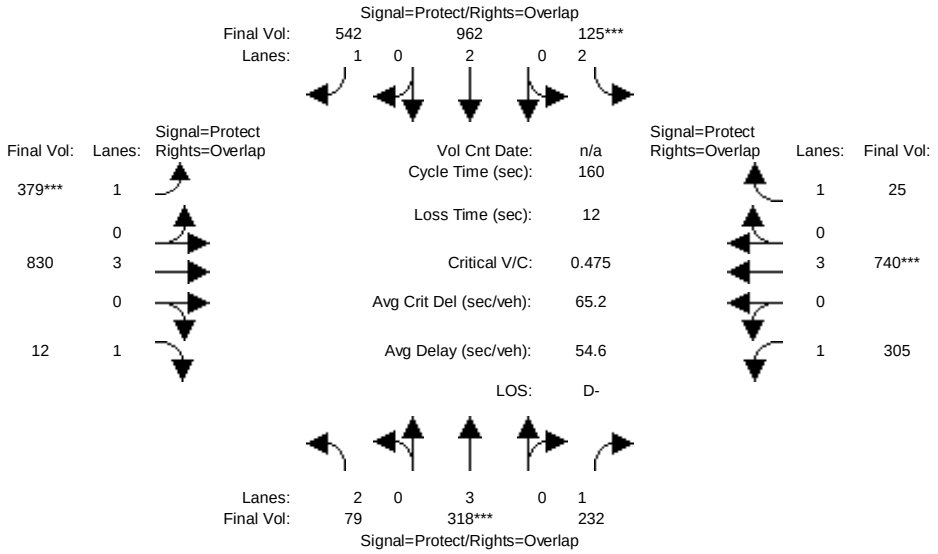
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #58: Lawrence Expressway/Saratoga Avenue



Street Name:	Lawrence Expressway						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	16	56	56	20	60	60	39	46	46	38	46	46
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	79	238	232	125	875	484	325	830	12	305	740	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	79	238	232	125	875	484	325	830	12	305	740	25
Added Vol:	0	80	0	0	87	58	54	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	79	318	232	125	962	542	379	830	12	305	740	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:	79	318	232	125	962	542	379	830	12	305	740	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	318	232	125	962	542	379	830	12	305	740	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:	79	318	232	125	962	542	379	830	12	305	740	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	5700	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.06	0.13	0.04	0.25	0.31	0.22	0.15	0.01	0.17	0.13	0.01
Crit Moves:		****		****			****				****	
Green Time:	14.8	51.8	87.4	18.5	55.5	91.6	36.1	43.0	57.8	35.6	42.5	61.0
Volume/Cap:	0.27	0.17	0.24	0.34	0.73	0.54	0.96	0.54	0.02	0.78	0.49	0.04
Uniform Del:	73.1	41.9	20.6	70.5	49.4	22.9	66.2	54.1	35.5	63.4	53.6	33.6
IncremntDel:	2.3	0.2	0.6	2.6	3.6	2.1	36.4	1.4	0.1	14.6	1.1	0.1
InitQueuDel:	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:	75.4	42.1	21.2	73.0	53.0	25.0	102.7	55.5	35.6	78.0	54.7	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:	75.4	42.1	21.2	73.0	53.0	25.0	102.7	55.5	35.6	78.0	54.7	33.7
LOS by Move:	E-	D	C+	E	D-	C	F	E+	D+	E-	D-	C-
HCM2kAvgQ:	62	96	166	96	566	467	644	313	11	447	273	21

Note: Queue reported is the distance per lane in feet.

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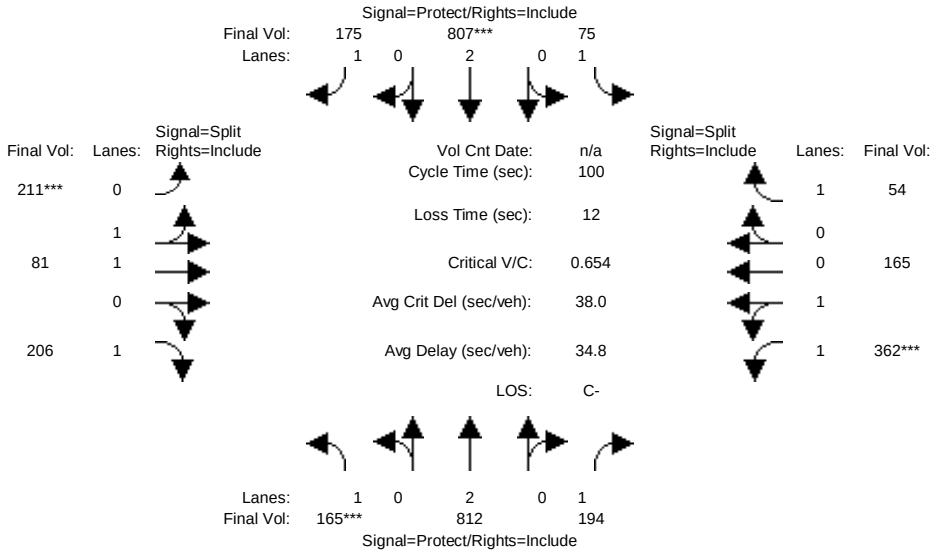
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #59: Saratoga Avenue/Cox Avenue



Street Name:	Cox Avenue						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	165	796	194	75	797	175	211	81	206	362	165	54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	165	796	194	75	797	175	211	81	206	362	165	54
Added Vol:	0	16	0	0	10	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	165	812	194	75	807	175	211	81	206	362	165	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:	165	812	194	75	807	175	211	81	206	362	165	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	165	812	194	75	807	175	211	81	206	362	165	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:	165	812	194	75	807	175	211	81	206	362	165	54
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.38	0.62	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	1900	1750	2438	1111	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.21	0.11	0.04	0.21	0.10	0.12	0.04	0.12	0.15	0.15	0.03
Crit Moves:	****				****		****			****		
Green Time:	14.4	35.3	35.3	11.6	32.5	32.5	18.4	18.4	18.4	22.7	22.7	22.7
Volume/Cap:	0.65	0.61	0.31	0.37	0.65	0.31	0.65	0.23	0.64	0.65	0.65	0.14
Uniform Del:	40.4	26.6	23.5	40.9	29.0	25.3	37.8	34.7	37.7	35.1	35.1	30.8
IncremntDel:	12.5	2.0	1.3	5.1	2.7	1.4	7.3	0.4	9.3	4.1	4.1	0.7
InitQueuDel:	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:	52.9	28.6	24.9	46.0	31.7	26.7	45.1	35.2	47.0	39.2	39.2	31.5
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:	52.9	28.6	24.9	46.0	31.7	26.7	45.1	35.2	47.0	39.2	39.2	31.5
LOS by Move:	D-	C	C	D	C	C	D	D+	D	D	D	C
HCM2kAvgQ:	159	269	118	66	285	110	190	55	184	221	221	36

Note: Queue reported is the distance per lane in feet.

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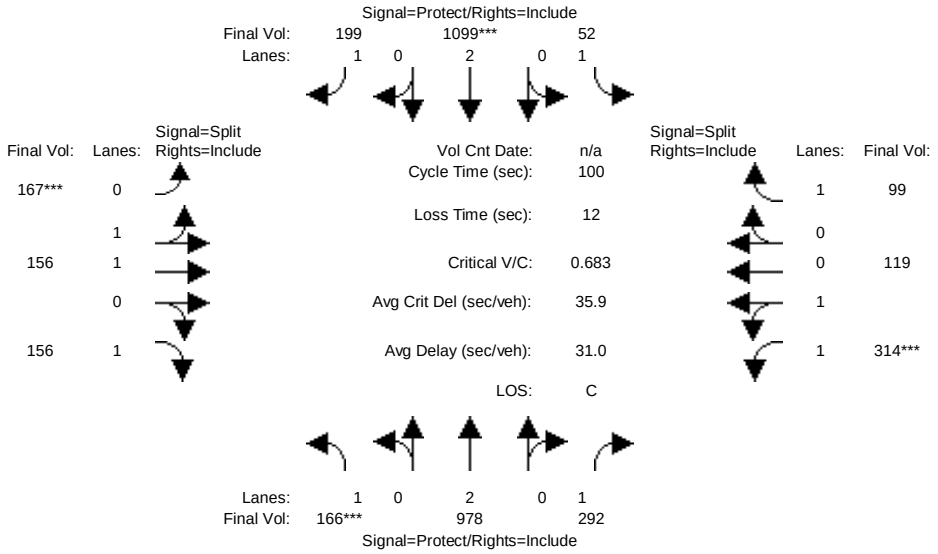
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #59: Saratoga Avenue/Cox Avenue



Street Name:	Cox Avenue						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	166	924	292	52	1041	199	167	156	156	314	119	99
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	166	924	292	52	1041	199	167	156	156	314	119	99
Added Vol:	0	54	0	0	58	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	166	978	292	52	1099	199	167	156	156	314	119	99
User Adj:	1.00	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:	166	978	292	52	1099	199	167	156	156	314	119	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	166	978	292	52	1099	199	167	156	156	314	119	99
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	166	978	292	52	1099	199	167	156	156	314	119	99
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.46	0.54	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	1900	1750	2574	976	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.26	0.17	0.03	0.29	0.11	0.10	0.08	0.09	0.12	0.12	0.06
Crit Moves:	****				****		****			****		
Green Time:	13.9	44.2	44.2	12.0	42.3	42.3	14.0	14.0	14.0	17.8	17.8	17.8
Volume/Cap:	0.68	0.58	0.38	0.25	0.68	0.27	0.68	0.59	0.64	0.68	0.68	0.32
Uniform Del:	41.0	21.0	18.7	39.9	23.4	18.8	40.9	40.3	40.6	38.4	38.4	35.8
IncremntDel:	14.5	1.5	1.4	2.8	2.4	0.9	7.8	4.6	12.1	5.9	5.9	2.7
InitQueuDel:	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:	55.5	22.5	20.1	42.7	25.8	19.7	48.7	44.9	52.7	44.3	44.3	38.4
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:	55.5	22.5	20.1	42.7	25.8	19.7	48.7	44.9	52.7	44.3	44.3	38.4
LOS by Move:	E+	C+	C+	D	C	B-	D	D	D-	D	D	D+
HCM2kAvgQ:	165	289	163	44	360	107	166	134	150	198	198	76

Note: Queue reported is the distance per lane in feet.

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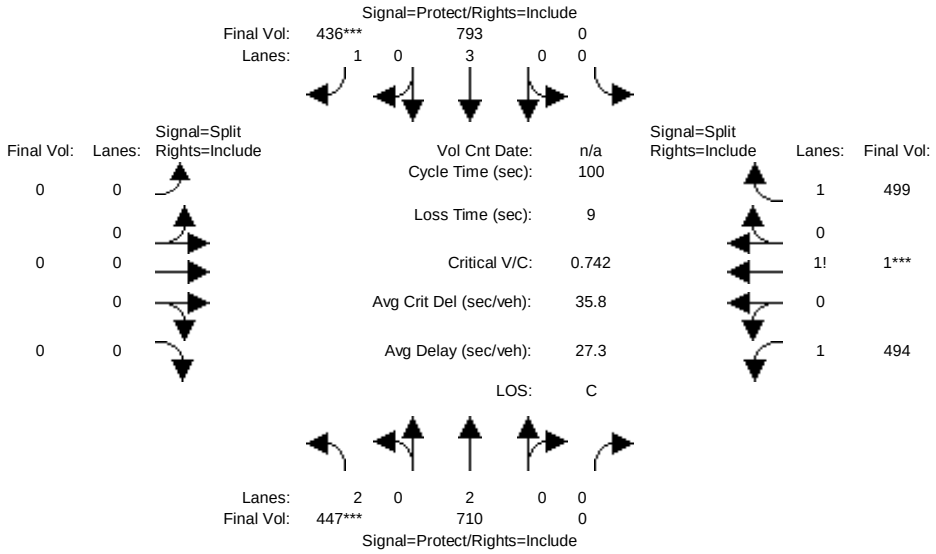
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #60: Saratoga Avenue/SR 85 Ramps North



Street Name:	Saratoga Avenue						SR 85 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	447	710	0	0	783	436	0	0	0	494	1	483
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	447	710	0	0	783	436	0	0	0	494	1	483
Added Vol:	0	0	0	0	10	0	0	0	0	0	0	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	447	710	0	0	793	436	0	0	0	494	1	499
User Adj:	1.00	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:	447	710	0	0	793	436	0	0	0	494	1	499
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	447	710	0	0	793	436	0	0	0	494	1	499
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	447	710	0	0	793	436	0	0	0	494	1	499
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	2.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.49	0.01	1.50
Final Sat.:	3150	3800	0	0	5700	1750	0	0	0	2619	4	2628
Capacity Analysis Module:												
Vol/Sat:	0.14	0.19	0.00	0.00	0.14	0.25	0.00	0.00	0.00	0.19	0.28	0.19
Crit Moves:	****					****					****	
Green Time:	19.1	52.7	0.0	0.0	33.6	33.6	0.0	0.0	0.0	38.3	38.3	38.3
Volume/Cap:	0.74	0.35	0.00	0.00	0.41	0.74	0.00	0.00	0.00	0.49	0.74	0.50
Uniform Del:	38.1	13.8	0.0	0.0	25.6	29.4	0.0	0.0	0.0	23.5	26.6	23.5
IncremntDel:	8.0	0.5	0.0	0.0	0.7	8.2	0.0	0.0	0.0	0.9	3.7	0.9
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	46.2	14.3	0.0	0.0	26.3	37.6	0.0	0.0	0.0	24.3	30.3	24.4
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:	46.2	14.3	0.0	0.0	26.3	37.6	0.0	0.0	0.0	24.3	30.3	24.4
LOS by Move:	D	B	A	A	C	D+	A	A	A	C	C	C
HCM2kAvgQ:	213	159	0	0	159	355	0	0	0	213	388	215

Note: Queue reported is the distance per lane in feet.

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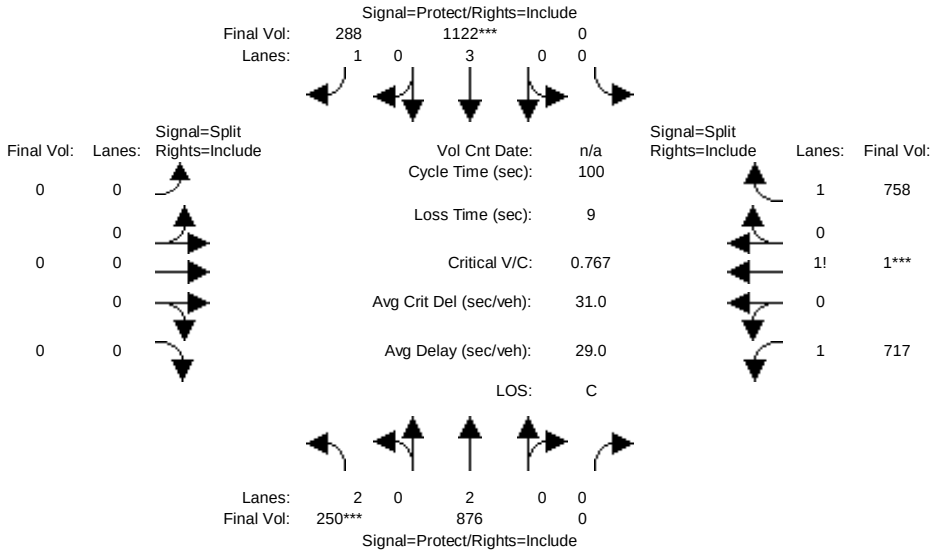
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #60: Saratoga Avenue/SR 85 Ramps North



Street Name:	Saratoga Avenue						SR 85 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	250	876	0	0	1064	288	0	0	0	717	1	704
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	250	876	0	0	1064	288	0	0	0	717	1	704
Added Vol:	0	0	0	0	58	0	0	0	0	0	0	54
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	250	876	0	0	1122	288	0	0	0	717	1	758
User Adj:	1.00	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:	250	876	0	0	1122	288	0	0	0	717	1	758
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	250	876	0	0	1122	288	0	0	0	717	1	758
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	250	876	0	0	1122	288	0	0	0	717	1	758
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	2.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.48	0.01	1.51
Final Sat.:	3150	3800	0	0	5700	1750	0	0	0	2600	2	2648
Capacity Analysis Module:												
Vol/Sat:	0.08	0.23	0.00	0.00	0.20	0.16	0.00	0.00	0.00	0.28	0.42	0.29
Crit Moves:	****				****						****	
Green Time:	10.3	36.0	0.0	0.0	25.7	25.7	0.0	0.0	0.0	55.0	55.0	55.0
Volume/Cap:	0.77	0.64	0.00	0.00	0.77	0.64	0.00	0.00	0.00	0.50	0.77	0.52
Uniform Del:	43.7	26.6	0.0	0.0	34.4	33.1	0.0	0.0	0.0	14.0	17.5	14.2
IncremntDel:	15.8	2.3	0.0	0.0	3.9	6.9	0.0	0.0	0.0	0.6	3.0	0.7
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	59.5	28.9	0.0	0.0	38.3	40.0	0.0	0.0	0.0	14.6	20.5	14.9
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:	59.5	28.9	0.0	0.0	38.3	40.0	0.0	0.0	0.0	14.6	20.5	14.9
LOS by Move:	E+	C	A	A	D+	D	A	A	A	B	C+	B
HCM2kAvgQ:	128	290	0	0	309	235	0	0	0	251	509	265

Note: Queue reported is the distance per lane in feet.

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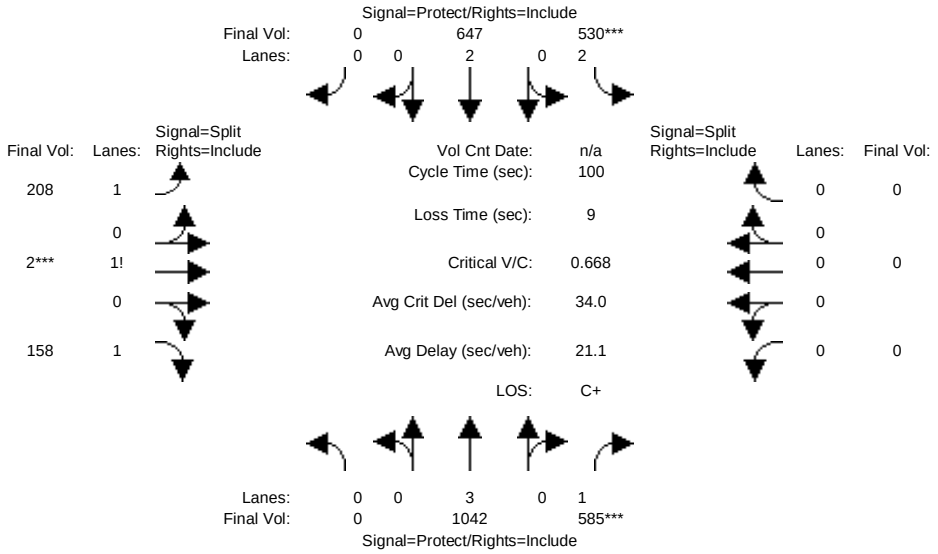
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #61: Saratoga Avenue/SR 85 Ramps South



Street Name:	Saratoga Avenue						SR 85 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1042	585	520	647	0	208	2	158	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1042	585	520	647	0	208	2	158	0	0	0
Added Vol:	0	0	0	10	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1042	585	530	647	0	208	2	158	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	1042	585	530	647	0	208	2	158	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1042	585	530	647	0	208	2	158	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	1042	585	530	647	0	208	2	158	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	1.56	0.01	1.43	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	2734	19	2497	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.33	0.17	0.17	0.00	0.08	0.11	0.06	0.00	0.00	0.00
Crit Moves:			****	****				****				
Green Time:	0.0	50.0	50.0	25.2	75.2	0.0	15.8	15.8	15.8	0.0	0.0	0.0
Volume/Cap:	0.00	0.37	0.67	0.67	0.23	0.00	0.48	0.67	0.40	0.00	0.00	0.00
Uniform Del:	0.0	15.3	18.8	33.7	3.7	0.0	38.4	39.6	37.8	0.0	0.0	0.0
IncremntDel:	0.0	0.4	4.0	4.4	0.2	0.0	2.2	6.3	1.3	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	15.7	22.8	38.1	3.9	0.0	40.5	45.9	39.1	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	15.7	22.8	38.1	3.9	0.0	40.5	45.9	39.1	0.0	0.0	0.0
LOS by Move:	A	B	C+	D+	A	A	D	D	D	A	A	A
HCM2kAvgQ:	0	162	379	231	78	0	114	175	91	0	0	0

Note: Queue reported is the distance per lane in feet.

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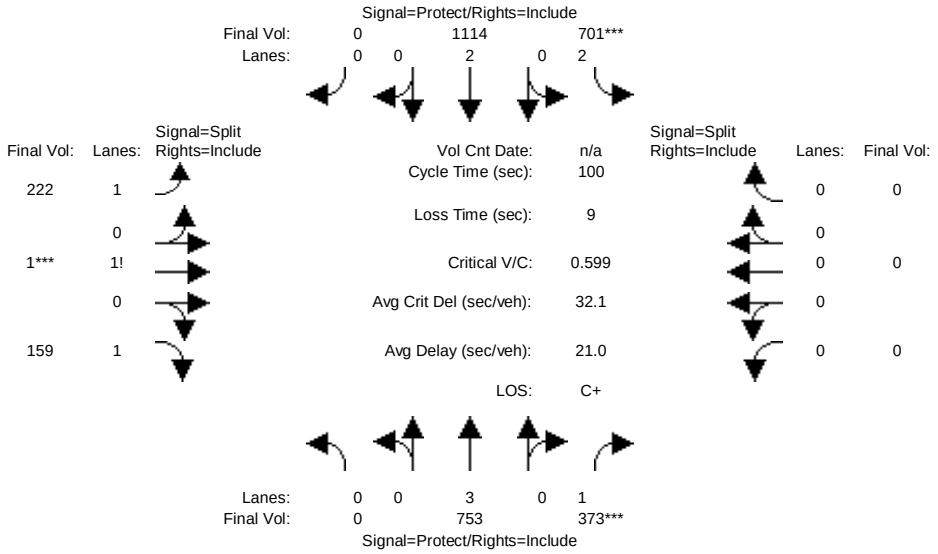
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #61: Saratoga Avenue/SR 85 Ramps South



Street Name:	Saratoga Avenue						SR 85 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	753	373	643	1114	0	222	1	159	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	753	373	643	1114	0	222	1	159	0	0	0
Added Vol:	0	0	0	58	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	753	373	701	1114	0	222	1	159	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	753	373	701	1114	0	222	1	159	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	753	373	701	1114	0	222	1	159	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	753	373	701	1114	0	222	1	159	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	1.58	0.01	1.41	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	2764	9	2477	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.13	0.21	0.22	0.29	0.00	0.08	0.11	0.06	0.00	0.00	0.00
Crit Moves:			****	****				****				
Green Time:	0.0	35.6	35.6	37.2	72.7	0.0	18.3	18.3	18.3	0.0	0.0	0.0
Volume/Cap:	0.00	0.37	0.60	0.60	0.40	0.00	0.44	0.60	0.35	0.00	0.00	0.00
Uniform Del:	0.0	23.9	26.4	25.4	5.3	0.0	36.3	37.5	35.7	0.0	0.0	0.0
IncremntDel:	0.0	0.5	4.2	2.3	0.4	0.0	1.6	4.1	0.9	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	24.4	30.6	27.7	5.7	0.0	37.9	41.6	36.6	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:	0.0	24.4	30.6	27.7	5.7	0.0	37.9	41.6	36.6	0.0	0.0	0.0
LOS by Move:	A	C	C	C	A	A	D+	D	D+	A	A	A
HCM2kAvgQ:	0	144	266	257	164	0	113	167	87	0	0	0

Note: Queue reported is the distance per lane in feet.

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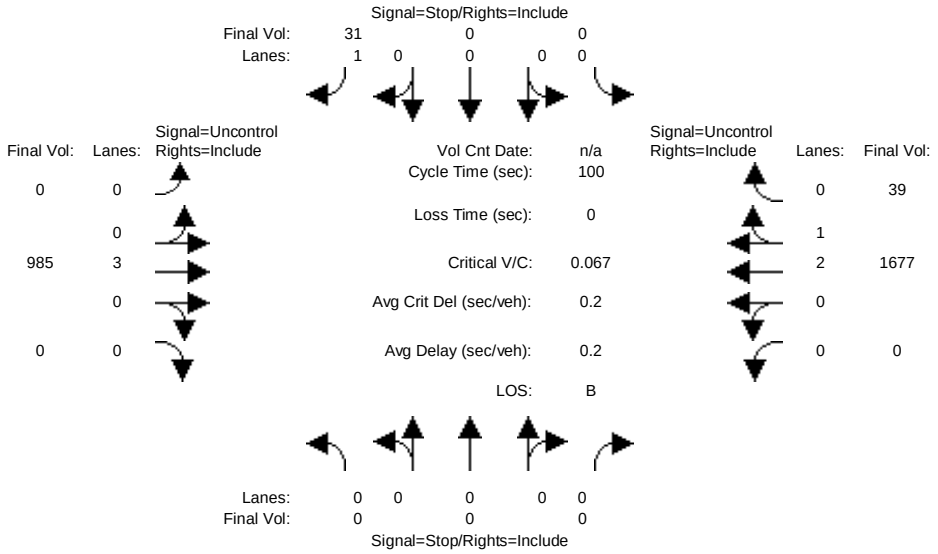
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 AM

Intersection #62: Stevens Creek Boulevard/Vallco Driveway 5



Street Name:	Vallco Driveway 5						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	0	0	0	0	0	31	0	985	0	0	1677	39
Growth Adj:	1.00	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	0	0	31	0	985	0	0	1677	39
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	0	0	31	0	985	0	0	1677	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:	0	0	0	0	0	31	0	985	0	0	1677	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	31	0	985	0	0	1677	39
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	579	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	464	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	464	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.07	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	5.4	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	13.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	B	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			13.3			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	31	0	985	0	0	1677	39
ApproachDel:	xxxxxx			13.3			xxxxxx			xxxxxx		

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=31]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=2732]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	31	0	985	0	0	1677	39

Major Street Volume: 2701
Minor Approach Volume: 31
Minor Approach Volume Threshold: -57 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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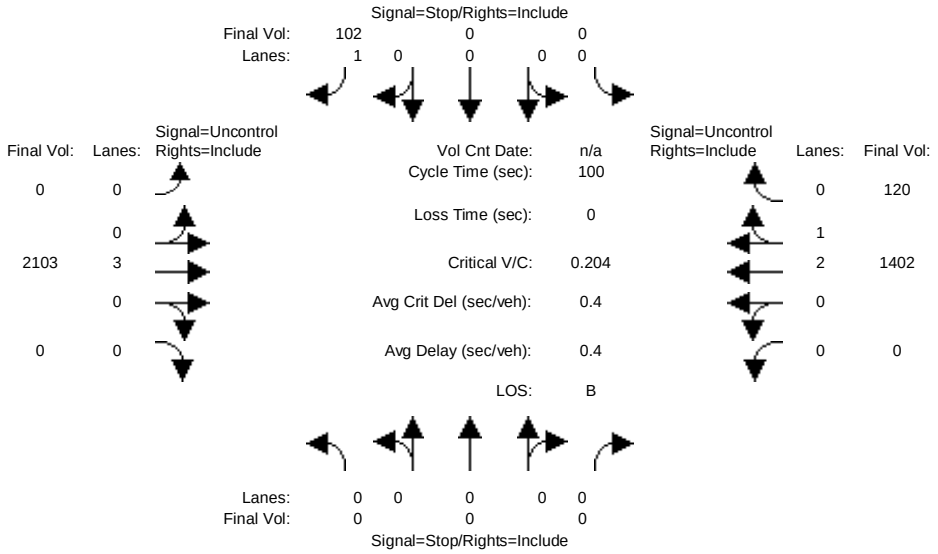
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 PM

Intersection #62: Stevens Creek Boulevard/Vallco Driveway 5



Street Name:	Vallco Driveway 5						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	0	0	0	0	102	0	2103	0	0	1402	120
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	102	0	2103	0	0	1402	120
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	0	0	102	0	2103	0	0	1402	120
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	0	0	102	0	2103	0	0	1402	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	102	0	2103	0	0	1402	120
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	527	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	501	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	501	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.20	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	18.9	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	14.0	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	B	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			14.0			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	102	0	2103	0	0	1402	120
ApproachDel:	xxxxxx			14.0			xxxxxx			xxxxxx		

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.4]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=102]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=3727]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	102	0	2103	0	0	1402	120

Major Street Volume: 3625
Minor Approach Volume: 102
Minor Approach Volume Threshold: -159 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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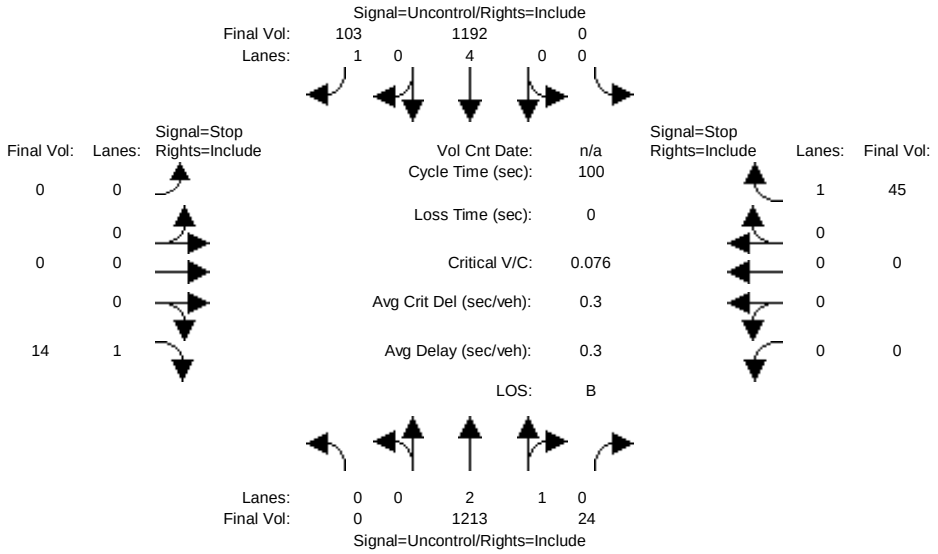
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 AM

Intersection #1163: Wolfe Road/Vallco Driveway 1



Street Name:	Wolfe Road						Vallco Driveway 1					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	1213	24	0	1192	103	0	0	14	0	0	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1213	24	0	1192	103	0	0	14	0	0	45
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	1213	24	0	1192	103	0	0	14	0	0	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	1213	24	0	1192	103	0	0	14	0	0	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1213	24	0	1192	103	0	0	14	0	0	45
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	298	xxxx	xxxx	416
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	704	xxxx	xxxx	591
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	704	xxxx	xxxx	591
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	0.08
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	1.5	xxxx	xxxx	6.2
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	10.2	xxxxx	xxxx	11.6
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			10.2			11.6		
ApproachLOS:	*			*			B			B		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #1163 Wolfe Road/Vallco Driveway 1

****

Future Volume Alternative: Peak Hour Warrant NOT Met

 Copyright (c) 2008 Dowling Associates, Inc.

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 4	0	1	0 0 0	0	1	0 0 0	0	1
Initial Vol:	0 1213	24		0 1192	103		0	0	14	0	0	45
ApproachDel:	xxxxxx			xxxxxx			10.2			11.6		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=14]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=2591]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=45]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=2591]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1163 Wolfe Road/Vallco Driveway 1

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 4	0	1	0 0 0	0	1	0 0 0	0	1
Initial Vol:	0 1213	24		0 1192	103		0	0	14	0	0	45

Major Street Volume: 2532
Minor Approach Volume: 45
Minor Approach Volume Threshold: -35 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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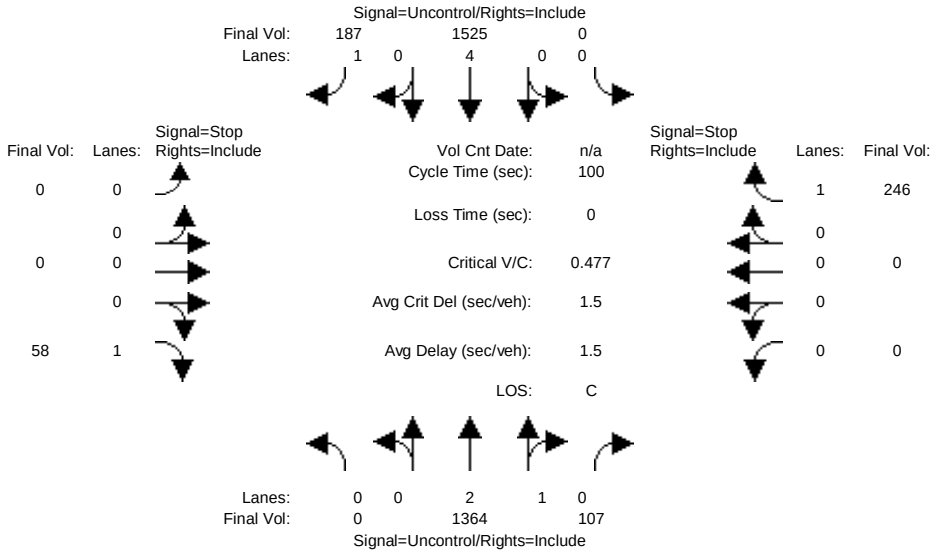
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 PM

Intersection #1163: Wolfe Road/Vallco Driveway 1



Street Name:	Wolfe Road						Vallco Driveway 1					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	0	1364	107	0	1525	187	0	0	58	0	0	246
Growth Adj:	1.00	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	1364	107	0	1525	187	0	0	58	0	0	246
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	1364	107	0	1525	187	0	0	58	0	0	246
User Adj:	1.00	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	1364	107	0	1525	187	0	0	58	0	0	246
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1364	107	0	1525	187	0	0	58	0	0	246
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	381	xxxx	xxxx	508
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	622	xxxx	xxxx	515
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	622	xxxx	xxxx	515
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.09	xxxx	xxxx	0.48
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	7.7	xxxx	xxxx	63.7
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	11.4	xxxxx	xxxx	18.2
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	C
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			11.4			18.2		
ApproachLOS:	*			*			B			C		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #1163 Wolfe Road/Vallco Driveway 1

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 4	0	1	0 0 0	0	1	0 0 0	0	1
Initial Vol:	0 1364	107		0 1525	187		0	0	58	0	0	246
ApproachDel:	xxxxxx			xxxxxx			11.4			18.2		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=58]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3487]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=246]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3487]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1163 Wolfe Road/Vallco Driveway 1

****

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 4	0	1	0 0 0	0	1	0 0 0	0	1
Initial Vol:	0 1364	107		0 1525	187		0	0	58	0	0	246

Major Street Volume: 3183
Minor Approach Volume: 246
Minor Approach Volume Threshold: -114 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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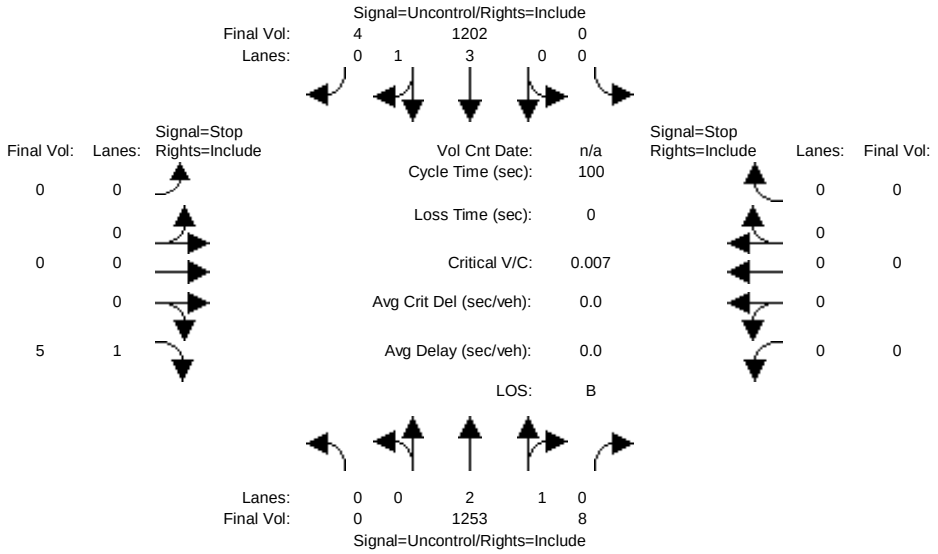
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 AM

Intersection #64: Wolfe Road/Vallco Driveway 2



Street Name:	Wolfe Road						Vallco Driveway 2					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	1253	8	0	1202	4	0	0	5	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1253	8	0	1202	4	0	0	5	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1253	8	0	1202	4	0	0	5	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	1253	8	0	1202	4	0	0	5	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1253	8	0	1202	4	0	0	5	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	303	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	700	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	700	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.5	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	10.2	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			10.2			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #64 Wolfe Road/Vallco Driveway 2

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 3	1	0	0 0 0	0	1	0 0 0	0	0
Initial Vol:	0 1253	8		0 1202	4		0 0		5	0 0		0
ApproachDel:	xxxxxx			xxxxxx			10.2			xxxxxx		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=5]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=2472]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #64 Wolfe Road/Vallco Driveway 2

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 3	1	0	0 0 0	0	1	0 0 0	0	0
Initial Vol:	0 1253	8		0 1202	4		0 0		5	0 0		0

Major Street Volume: 2467
Minor Approach Volume: 5
Minor Approach Volume Threshold: -26 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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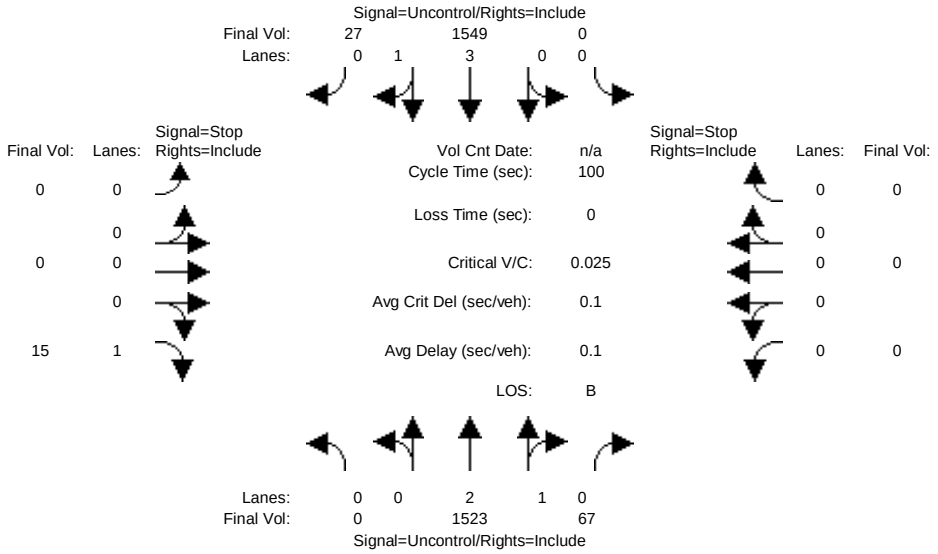
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 PM

Intersection #64: Wolfe Road/Vallco Driveway 2



Street Name:	Wolfe Road						Vallco Driveway 2					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	1523	67	0	1549	27	0	0	15	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1523	67	0	1549	27	0	0	15	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1523	67	0	1549	27	0	0	15	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	1523	67	0	1549	27	0	0	15	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1523	67	0	1549	27	0	0	15	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	401	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	605	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	605	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	1.9	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	11.1	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			11.1			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #64 Wolfe Road/Vallco Driveway 2

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 3	1	0	0 0 0	0	1	0 0 0	0	0
Initial Vol:	0 1523	67		0 1549	27		0 0	15		0 0	0	
ApproachDel:	xxxxxx			xxxxxx			11.1			xxxxxx		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=15]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=3181]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #64 Wolfe Road/Vallco Driveway 2

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 3	1	0	0 0 0	0	1	0 0 0	0	0
Initial Vol:	0 1523	67		0 1549	27		0 0	15		0 0	0	

Major Street Volume: 3166
Minor Approach Volume: 15
Minor Approach Volume Threshold: -112 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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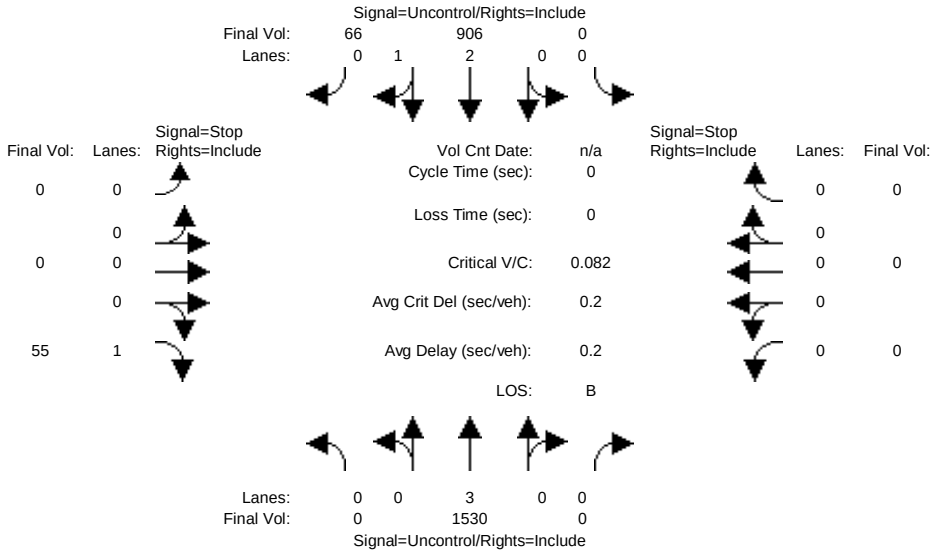
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 AM

Intersection #65: Wolfe Road/Vallco Driveway 3



Street Name:	Wolfe Road						Vallco Driveway 3					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	1530	0	0	906	66	0	0	55	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1530	0	0	906	66	0	0	55	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1530	0	0	906	66	0	0	55	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	1530	0	0	906	66	0	0	55	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1530	0	0	906	66	0	0	55	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	335	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	667	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	667	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.08	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	6.7	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	10.9	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			10.9			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 2	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0 1530	0		0 906	66		0	0	55	0	0	0
ApproachDel:	xxxxxx			xxxxxx			10.9			xxxxxx		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=55]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=2557]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 2	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0 1530	0		0 906	66		0	0	55	0	0	0

Major Street Volume: 2502
Minor Approach Volume: 55
Minor Approach Volume Threshold: -31 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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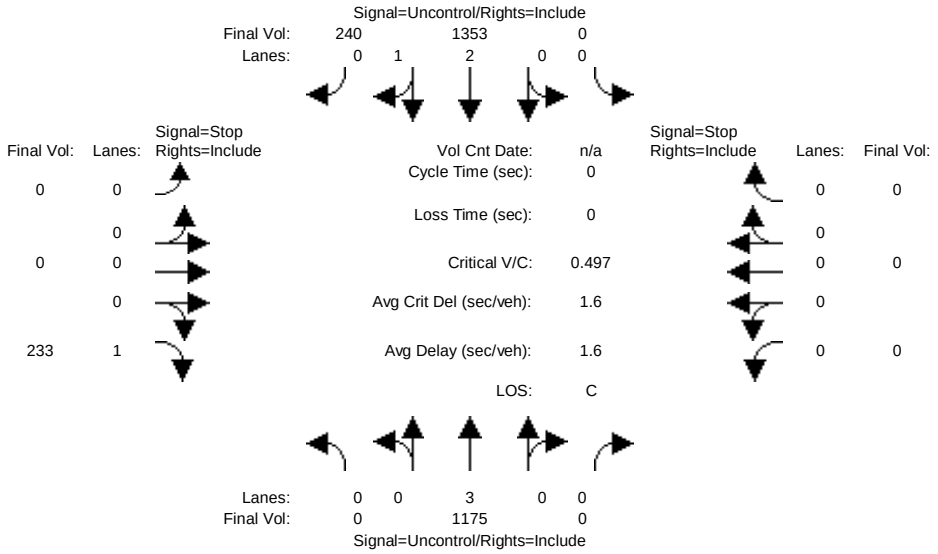
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 PM

Intersection #65: Wolfe Road/Vallco Driveway 3



Street Name:	Wolfe Road						Vallco Driveway 3					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	1175	0	0	1353	240	0	0	233	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1175	0	0	1353	240	0	0	233	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1175	0	0	1353	240	0	0	233	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	1175	0	0	1353	240	0	0	233	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1175	0	0	1353	240	0	0	233	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	571	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	469	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	469	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.50	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	67.8	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	20.0	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	C	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			20.0			xxxxxx		
ApproachLOS:	*			*			C			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 2	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0 1175	0		0 1353	240		0	0	233	0	0	0
ApproachDel:	xxxxxx			xxxxxx			20.0			xxxxxx		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.3]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=233]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=3001]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 2	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0 1175	0		0 1353	240		0	0	233	0	0	0

Major Street Volume: 2768
Minor Approach Volume: 233
Minor Approach Volume Threshold: -66 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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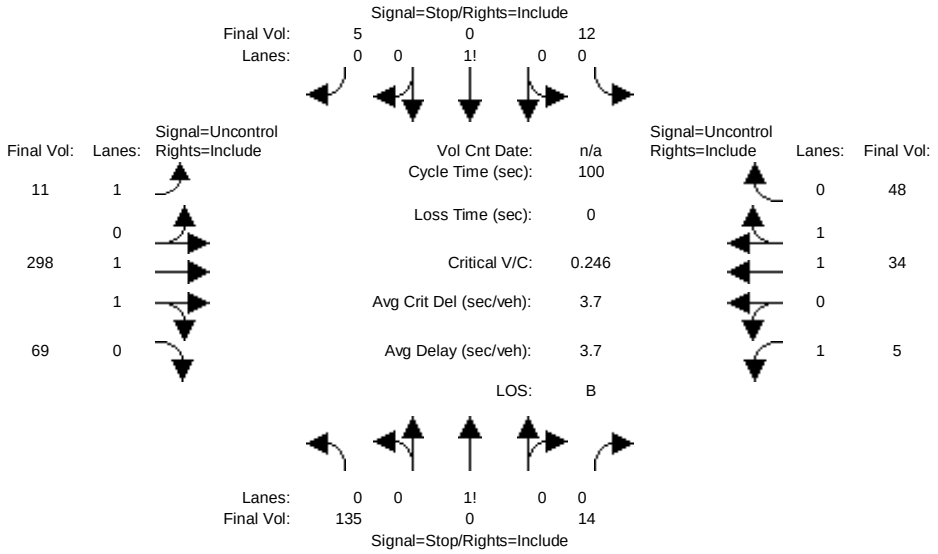
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 AM

Intersection #66: Vallco Parkway/Vallco Driveway 4



Street Name:	Vallco Driveway 4						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	135	0	14	12	0	5	11	298	69	5	34	48
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	135	0	14	12	0	5	11	298	69	5	34	48
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:	135	0	14	12	0	5	11	298	69	5	34	48
User Adj:	1.00	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:	135	0	14	12	0	5	11	298	69	5	34	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	135	0	14	12	0	5	11	298	69	5	34	48
Critical Gap Module:												
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	382	447	184	239	457	41	82	xxxx	xxxxx	367	xxxx	xxxxx
Potent Cap.:	556	510	834	701	503	1028	1528	xxxx	xxxxx	1203	xxxx	xxxxx
Move Cap.:	549	504	834	683	497	1028	1528	xxxx	xxxxx	1203	xxxx	xxxxx
Volume/Cap:	0.25	0.00	0.02	0.02	0.00	0.00	0.01	xxxx	xxxx	0.00	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.5	xxxx	xxxxx	0.3	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	8.0	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	567	xxxxx	xxxx	758	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	1.0	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	13.6	xxxxx	xxxxx	9.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	B	*	*	A	*	*	*	*	*	*	*
ApproachDel:		13.6			9.9		xxxxx			xxxxx		
ApproachLOS:		B			A		*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 1! 0	0		0 0 1! 0	0		1 0 1	1	0	1 0 1	1	0
Initial Vol:	135	0	14	12	0	5	11	298	69	5	34	48
ApproachDel:	13.6			9.9			xxxxx			xxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.6]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=149]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=631]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=17]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=631]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 1! 0	0		0 0 1! 0	0		1 0 1	1	0	1 0 1	1	0
Initial Vol:	135	0	14	12	0	5	11	298	69	5	34	48

Major Street Volume: 465
Minor Approach Volume: 149
Minor Approach Volume Threshold: 549

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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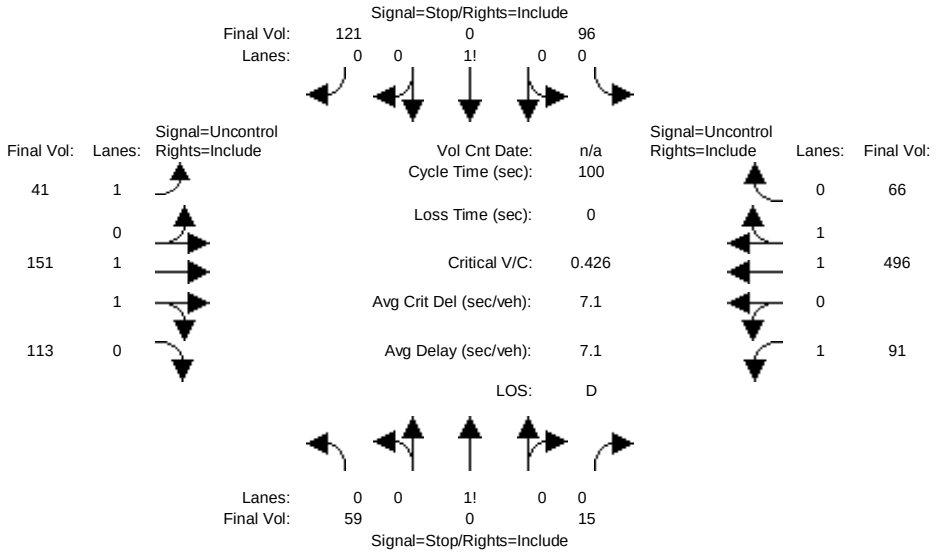
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 PM

Intersection #66: Vallco Parkway/Vallco Driveway 4



Street Name:	Vallco Driveway 4						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	59	0	15	96	0	121	41	151	113	91	496	66
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	59	0	15	96	0	121	41	151	113	91	496	66
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:	59	0	15	96	0	121	41	151	113	91	496	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:	59	0	15	96	0	121	41	151	113	91	496	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	59	0	15	96	0	121	41	151	113	91	496	66
Critical Gap Module:												
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	720	1034	132	869	1057	281	562	xxxx	xxxxx	264	xxxx	xxxxx
Potent Cap.:	319	234	899	249	227	722	1019	xxxx	xxxxx	1312	xxxx	xxxxx
Move Cap.:	244	209	899	225	203	722	1019	xxxx	xxxxx	1312	xxxx	xxxxx
Volume/Cap:	0.24	0.00	0.02	0.43	0.00	0.17	0.04	xxxx	xxxx	0.07	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	3.1	xxxx	xxxxx	5.6	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.7	xxxx	xxxxx	7.9	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	286	xxxxx	xxxx	365	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	1.0	xxxxx	xxxxx	3.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	21.9	xxxxx	xxxxx	28.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	D	*	*	*	*	*	*	*
ApproachDel:		21.9			28.3		xxxxxx			xxxxxx		
ApproachLOS:		C			D		*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1	0	1 0	1	0
Initial Vol:	59	0	15	96	0	121	41	151	113	91	496	66
ApproachDel:	21.9			28.3			xxxxxx			xxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.4]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=74]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1249]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.7]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=217]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1249]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1	0	1 0	1	0
Initial Vol:	59	0	15	96	0	121	41	151	113	91	496	66

Major Street Volume: 958
Minor Approach Volume: 217
Minor Approach Volume Threshold: 300

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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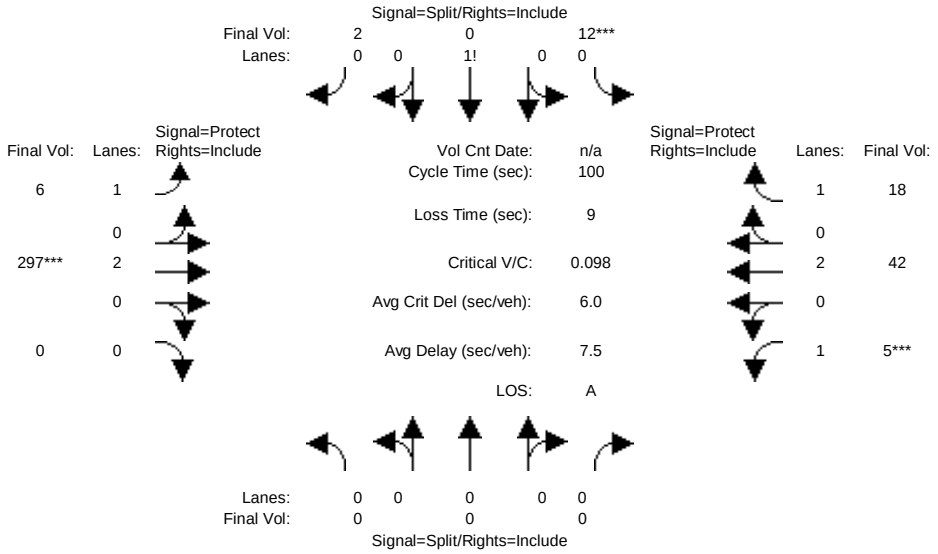
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 AM

Intersection #67: Vallco Parkway/Perimeter Road



Street Name:	Perimeter Road						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	10	0	10	7	10	0	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	12	0	2	6	297	0	5	42	18
Growth Adj:	1.00	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	12	0	2	6	297	0	5	42	18
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	12	0	2	6	297	0	5	42	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:	0	0	0	12	0	2	6	297	0	5	42	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	12	0	2	6	297	0	5	42	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:	0	0	0	12	0	2	6	297	0	5	42	18
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	0.86	0.00	0.14	1.00	2.00	0.00	1.00	2.00	1.00
Final Sat.:	0	0	0	1500	0	250	1750	3800	0	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.08	0.00	0.00	0.01	0.01
Crit Moves:				****				****		****		
Green Time:	0.0	0.0	0.0	10.0	0.0	10.0	33.4	74.0	0.0	7.0	47.6	47.6
Volume/Cap:	0.00	0.00	0.00	0.08	0.00	0.08	0.01	0.11	0.00	0.04	0.02	0.02
Uniform Del:	0.0	0.0	0.0	40.8	0.0	40.8	22.3	3.7	0.0	43.4	13.9	13.8
IncremntDel:	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00
Delay/Veh:	0.0	0.0	0.0	41.0	0.0	41.0	22.3	3.7	0.0	43.5	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:	0.0	0.0	0.0	41.0	0.0	41.0	22.3	3.7	0.0	43.5	13.9	13.9
LOS by Move:	A	A	A	D	A	D	C+	A	A	D	B	B
HCM2kAvgQ:	0	0	0	12	0	12	3	32	0	5	8	8

Note: Queue reported is the distance per lane in feet.

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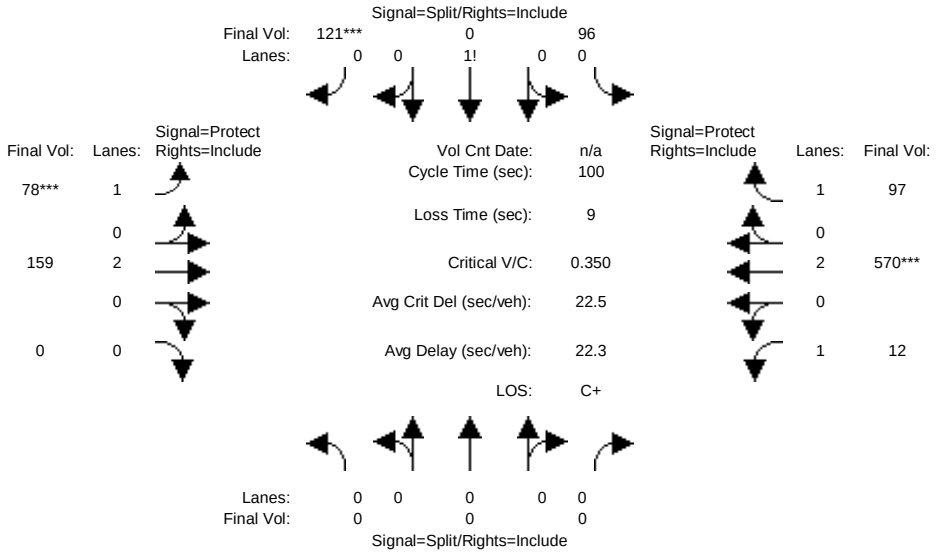
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 PM

Intersection #67: Vallco Parkway/Perimeter Road



Street Name:	Perimeter Road						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	10	0	10	7	10	0	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	96	0	121	78	159	0	12	570	97
Growth Adj:	1.00	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	96	0	121	78	159	0	12	570	97
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	96	0	121	78	159	0	12	570	97
User Adj:	1.00	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	96	0	121	78	159	0	12	570	97
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	96	0	121	78	159	0	12	570	97
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	96	0	121	78	159	0	12	570	97
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	0.44	0.00	0.56	1.00	2.00	0.00	1.00	2.00	1.00
Final Sat.:	0	0	0	774	0	976	1750	3800	0	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.12	0.00	0.12	0.04	0.04	0.00	0.01	0.15	0.06
Crit Moves:						****	****				****	
Green Time:	0.0	0.0	0.0	35.4	0.0	35.4	12.7	32.7	0.0	22.9	42.8	42.8
Volume/Cap:	0.00	0.00	0.00	0.35	0.00	0.35	0.35	0.13	0.00	0.03	0.35	0.13
Uniform Del:	0.0	0.0	0.0	23.8	0.0	23.8	39.9	23.6	0.0	29.9	19.2	17.3
IncremntDel:	0.0	0.0	0.0	0.3	0.0	0.3	1.0	0.0	0.0	0.0	0.1	0.1
InitQueuDel:	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	1.00	1.00	1.00
Delay/Veh:	0.0	0.0	0.0	24.1	0.0	24.1	40.8	23.7	0.0	30.0	19.3	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:	0.0	0.0	0.0	24.1	0.0	24.1	40.8	23.7	0.0	30.0	19.3	17.4
LOS by Move:	A	A	A	C	A	C	D	C	A	C	B-	B
HCM2kAvgQ:	0	0	0	134	0	134	58	41	0	8	146	48

Note: Queue reported is the distance per lane in feet.

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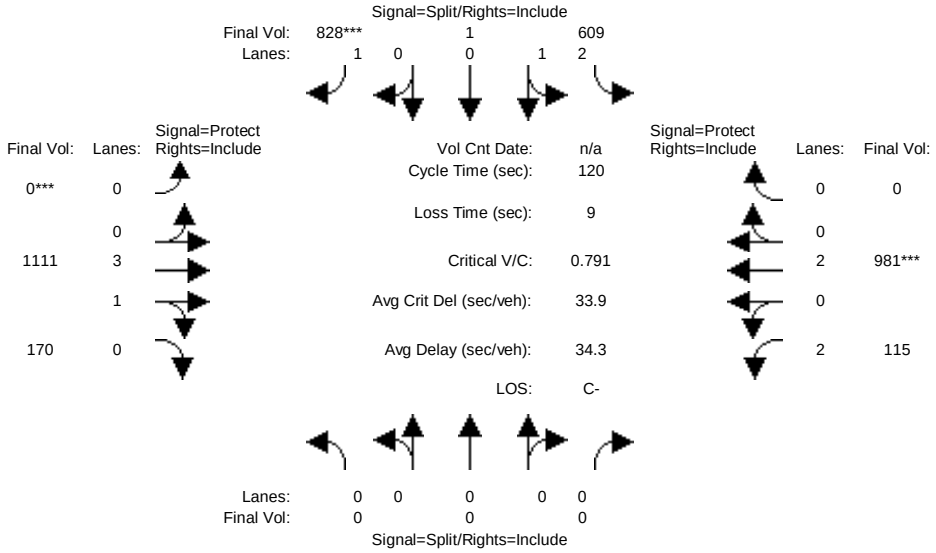
Traffix Output

Background Conditions

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #1: Stevens Creek Boulevard/SR 85 Ramps West



Street Name:	SR 85 Ramps West						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	609	1	828	0	1103	170	115	976	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	609	1	828	0	1103	170	115	976	0
Added Vol:	0	0	0	0	0	0	0	8	0	0	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	609	1	828	0	1111	170	115	981	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	0	0	609	1	828	0	1111	170	115	981	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	609	1	828	0	1111	170	115	981	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	609	1	828	0	1111	170	115	981	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.87	0.95	0.92	0.92	0.99	0.95	0.83	1.00	0.92
Lanes:	0.00	0.00	0.00	2.99	0.01	1.00	0.00	3.45	0.55	2.00	2.00	0.00
Final Sat.:	0	0	0	4942	8	1750	0	6503	995	3150	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.12	0.12	0.47	0.00	0.17	0.17	0.04	0.26	0.00
Crit Moves:						****	****				****	
Green Time:	0.0	0.0	0.0	71.8	71.8	71.8	0.0	29.2	29.2	10.0	39.2	0.0
Volume/Cap:	0.00	0.00	0.00	0.21	0.21	0.79	0.00	0.70	0.70	0.44	0.79	0.00
Uniform Del:	0.0	0.0	0.0	11.0	11.0	18.4	0.0	41.4	41.4	52.4	36.7	0.0
IncremntDel:	0.0	0.0	0.0	0.2	0.2	6.1	0.0	2.3	2.3	5.3	5.2	0.0
InitQueuDel:	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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	0.0	0.0	0.0	11.2	11.2	24.5	0.0	43.7	43.7	57.6	41.9	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	11.2	11.2	24.5	0.0	43.7	43.7	57.6	41.9	0.0
LOS by Move:	A	A	A	B+	B+	C	A	D	D	E+	D	A
HCM2kAvgQ:	0	0	0	96	96	656	0	299	299	59	412	0

Note: Queue reported is the distance per lane in feet.

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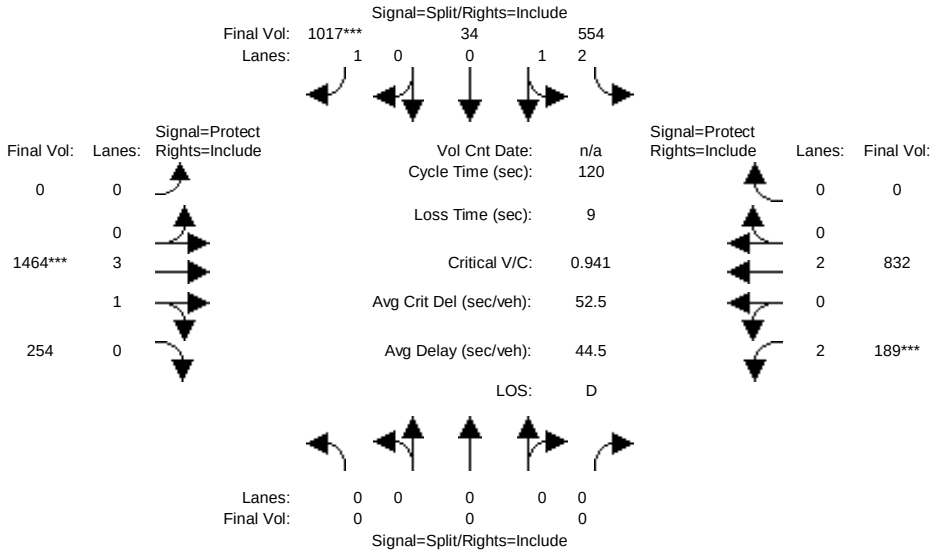
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #1: Stevens Creek Boulevard/SR 85 Ramps West



Street Name:	SR 85 Ramps West						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	554	34	1017	0	1437	254	189	803	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	554	34	1017	0	1437	254	189	803	0
Added Vol:	0	0	0	0	0	0	0	27	0	0	29	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	554	34	1017	0	1464	254	189	832	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	0	0	554	34	1017	0	1464	254	189	832	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	554	34	1017	0	1464	254	189	832	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	554	34	1017	0	1464	254	189	832	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.86	0.95	0.92	0.92	0.99	0.95	0.83	1.00	0.92
Lanes:	0.00	0.00	0.00	2.84	0.16	1.00	0.00	3.38	0.62	2.00	2.00	0.00
Final Sat.:	0	0	0	4662	286	1750	0	6389	1109	3150	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.12	0.12	0.58	0.00	0.23	0.23	0.06	0.22	0.00
Crit Moves:						****		****		****		
Green Time:	0.0	0.0	0.0	74.1	74.1	74.1	0.0	29.2	29.2	7.7	36.9	0.0
Volume/Cap:	0.00	0.00	0.00	0.19	0.19	0.94	0.00	0.94	0.94	0.94	0.71	0.00
Uniform Del:	0.0	0.0	0.0	10.0	10.0	20.9	0.0	44.5	44.5	55.9	36.9	0.0
IncremntDel:	0.0	0.0	0.0	0.1	0.1	16.4	0.0	11.1	11.1	49.7	3.7	0.0
InitQueuDel:	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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	0.0	0.0	0.0	10.1	10.1	37.3	0.0	55.6	55.6	105.7	40.6	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	10.1	10.1	37.3	0.0	55.6	55.6	105.7	40.6	0.0
LOS by Move:	A	A	A	B+	B+	D+	A	E+	E+	F	D	A
HCM2kAvgQ:	0	0	0	88	88	1044	0	503	503	130	348	0

Note: Queue reported is the distance per lane in feet.

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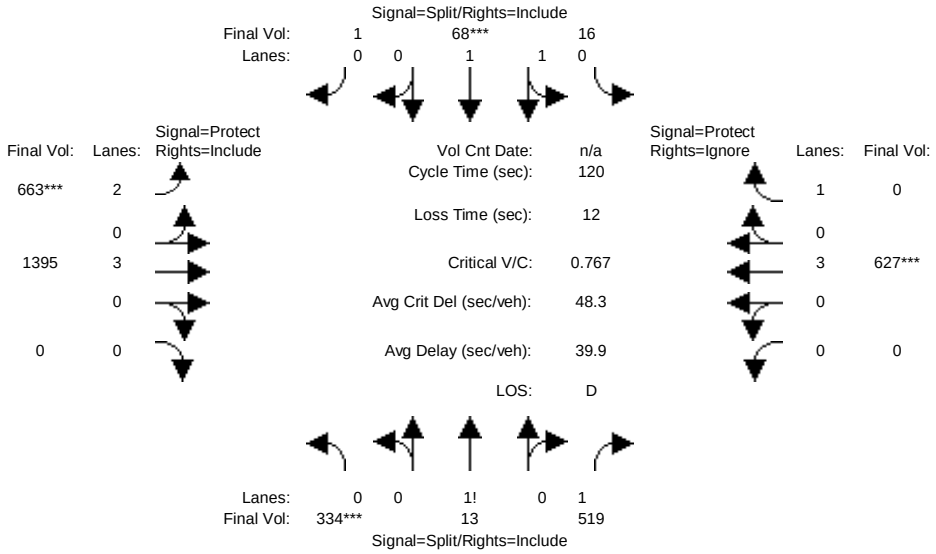
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #2: Stevens Creek Boulevard/SR 85 Ramps East



Street Name:	SR 85 Ramps East						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	0	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	334	13	519	16	68	1	663	1387	0	0	622	501
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	334	13	519	16	68	1	663	1387	0	0	622	501
Added Vol:	0	0	0	0	0	0	0	8	0	0	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	334	13	519	16	68	1	663	1395	0	0	627	501
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	0.00
PHF Volume:	334	13	519	16	68	1	663	1395	0	0	627	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	334	13	519	16	68	1	663	1395	0	0	627	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	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	334	13	519	16	68	1	663	1395	0	0	627	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.95	0.95	0.95	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	0.55	0.02	1.43	0.38	1.60	0.02	2.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	964	38	2499	678	2880	42	3150	5700	0	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.35	0.35	0.21	0.02	0.02	0.02	0.21	0.24	0.00	0.00	0.11	0.00
Crit Moves:	****				****		****				****	
Green Time:	50.9	50.9	50.9	10.0	10.0	10.0	30.9	47.1	0.0	0.0	16.2	0.0
Volume/Cap:	0.82	0.82	0.49	0.28	0.28	0.28	0.82	0.62	0.00	0.00	0.82	0.00
Uniform Del:	30.4	30.4	25.1	51.6	51.6	51.6	41.9	29.3	0.0	0.0	50.5	0.0
IncremntDel:	7.0	7.0	1.0	2.4	2.4	2.4	8.9	1.3	0.0	0.0	9.4	0.0
InitQueuDel:	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	0.00	0.00	1.00	0.00
Delay/Veh:	37.4	37.4	26.1	54.0	54.0	54.0	50.8	30.7	0.0	0.0	59.9	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:	37.4	37.4	26.1	54.0	54.0	54.0	50.8	30.7	0.0	0.0	59.9	0.0
LOS by Move:	D+	D+	C	D-	D-	D-	D	C	A	A	E+	A
HCM2kAvgQ:	576	576	262	45	45	45	365	341	0	0	243	0

Note: Queue reported is the distance per lane in feet.

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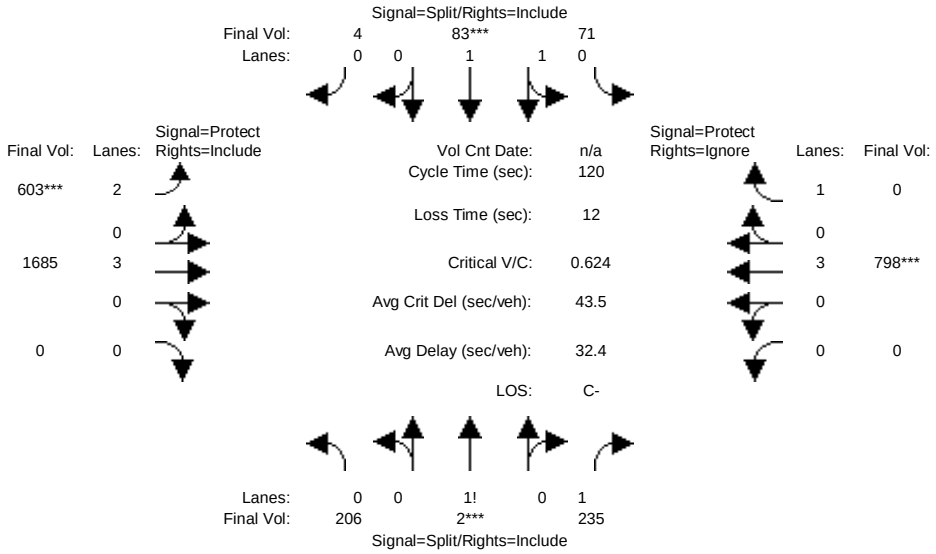
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #2: Stevens Creek Boulevard/SR 85 Ramps East



Street Name:	SR 85 Ramps East						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	0	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	206	2	235	71	83	4	603	1658	0	0	769	560
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	206	2	235	71	83	4	603	1658	0	0	769	560
Added Vol:	0	0	0	0	0	0	0	27	0	0	29	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	206	2	235	71	83	4	603	1685	0	0	798	560
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	0.00
PHF Volume:	206	2	235	71	83	4	603	1685	0	0	798	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	206	2	235	71	83	4	603	1685	0	0	798	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	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	206	2	235	71	83	4	603	1685	0	0	798	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.95	0.95	0.95	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	0.63	0.01	1.36	0.90	1.05	0.05	2.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	1108	11	2382	1618	1891	91	3150	5700	0	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.19	0.19	0.10	0.04	0.04	0.04	0.19	0.30	0.00	0.00	0.14	0.00
Crit Moves:		****			****		****				****	
Green Time:	35.2	35.2	35.2	10.0	10.0	10.0	36.3	62.8	0.0	0.0	26.5	0.0
Volume/Cap:	0.63	0.63	0.34	0.53	0.53	0.53	0.63	0.57	0.00	0.00	0.63	0.00
Uniform Del:	36.8	36.8	33.2	52.7	52.7	52.7	36.1	19.4	0.0	0.0	42.3	0.0
IncremntDel:	4.3	4.3	0.7	6.5	6.5	6.5	3.2	0.8	0.0	0.0	2.4	0.0
InitQueuDel:	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	0.00	0.00	1.00	0.00
Delay/Veh:	41.1	41.1	33.9	59.2	59.2	59.2	39.3	20.2	0.0	0.0	44.8	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:	41.1	41.1	33.9	59.2	59.2	59.2	39.3	20.2	0.0	0.0	44.8	0.0
LOS by Move:	D	D	C-	E+	E+	E+	D	C+	A	A	D	A
HCM2kAvgQ:	296	296	135	92	92	92	271	327	0	0	241	0

Note: Queue reported is the distance per lane in feet.

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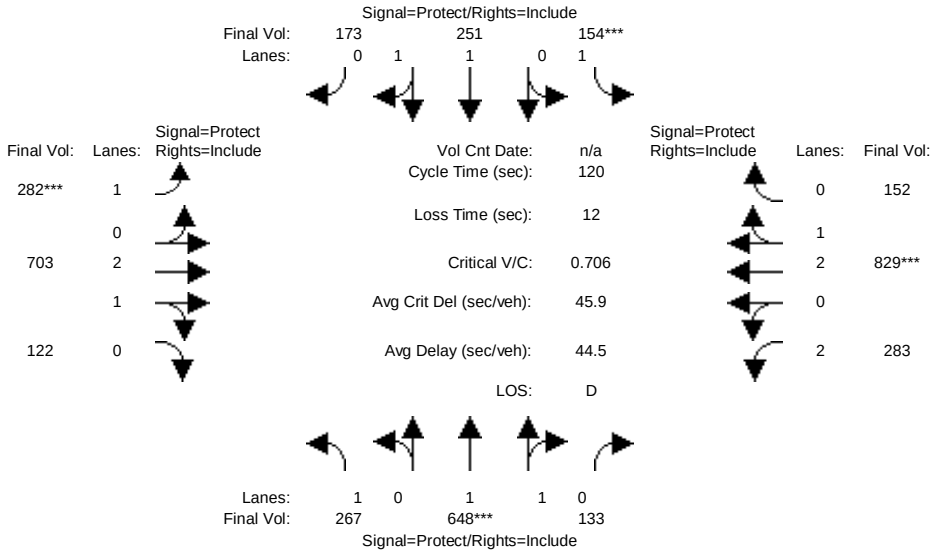
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #3: Stevens Creek Boulevard/Stelling Road



Street Name:	Stelling Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	267	648	133	154	251	173	282	687	122	283	819	152
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	267	648	133	154	251	173	282	687	122	283	819	152
Added Vol:	0	0	0	0	0	0	0	16	0	0	10	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	267	648	133	154	251	173	282	703	122	283	829	152
User Adj:	1.00	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:	267	648	133	154	251	173	282	703	122	283	829	152
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	267	648	133	154	251	173	282	703	122	283	829	152
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	267	648	133	154	251	173	282	703	122	283	829	152
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.99	0.95	0.92	0.99	0.95	0.83	0.99	0.95
Lanes:	1.00	1.65	0.35	1.00	1.16	0.84	1.00	2.54	0.46	2.00	2.52	0.48
Final Sat.:	1750	3069	630	1750	2189	1509	1750	4771	828	3150	4731	867
Capacity Analysis Module:												
Vol/Sat:	0.15	0.21	0.21	0.09	0.11	0.11	0.16	0.15	0.15	0.09	0.18	0.18
Crit Moves:		****		****			****				****	
Green Time:	29.0	35.9	35.9	15.0	21.8	21.8	27.4	35.5	35.5	21.7	29.8	29.8
Volume/Cap:	0.63	0.71	0.71	0.71	0.63	0.63	0.71	0.50	0.50	0.50	0.71	0.71
Uniform Del:	40.7	37.4	37.4	50.4	45.4	45.4	42.6	34.9	34.9	44.3	41.1	41.1
IncremntDel:	7.0	3.8	3.8	17.5	4.5	4.5	10.1	1.1	1.1	3.1	3.0	3.0
InitQueuDel:	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	41.2	41.2	67.9	49.8	49.8	52.7	36.0	36.0	47.4	44.2	44.2
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	41.2	41.2	67.9	49.8	49.8	52.7	36.0	36.0	47.4	44.2	44.2
LOS by Move:	D	D	D	E	D	D	D-	D+	D+	D	D	D
HCM2kAvgQ:	256	351	351	183	207	207	288	217	217	152	306	306

Note: Queue reported is the distance per lane in feet.

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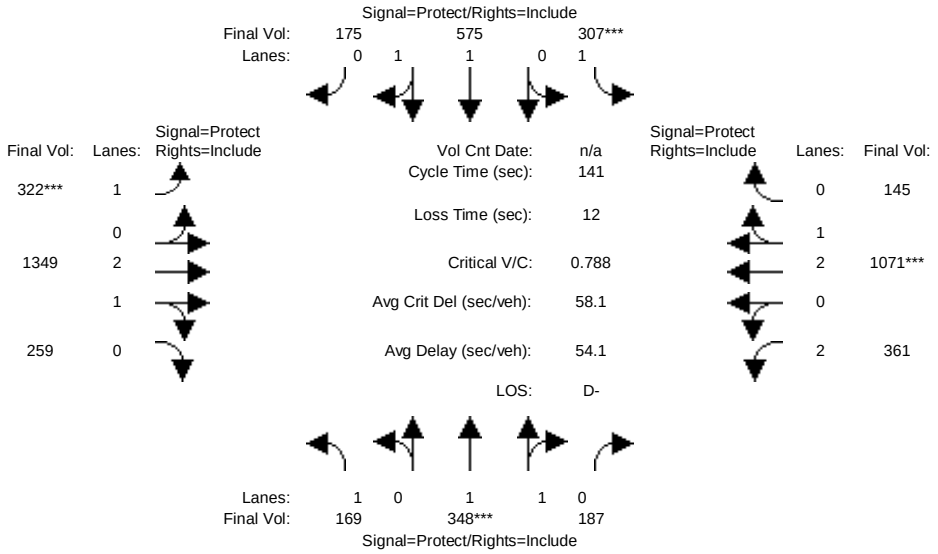
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #3: Stevens Creek Boulevard/Stelling Road



Street Name:	Stelling Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	169	348	187	307	575	175	322	1295	259	361	1013	145
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	169	348	187	307	575	175	322	1295	259	361	1013	145
Added Vol:	0	0	0	0	0	0	0	54	0	0	58	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	169	348	187	307	575	175	322	1349	259	361	1071	145
User Adj:	1.00	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:	169	348	187	307	575	175	322	1349	259	361	1071	145
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	348	187	307	575	175	322	1349	259	361	1071	145
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	169	348	187	307	575	175	322	1349	259	361	1071	145
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	0.98	0.95	0.92	0.99	0.95	0.83	0.99	0.95
Lanes:	1.00	1.28	0.72	1.00	1.52	0.48	1.00	2.50	0.50	2.00	2.63	0.37
Final Sat.:	1750	2406	1293	1750	2836	863	1750	4697	902	3150	4931	668
Capacity Analysis Module:												
Vol/Sat:	0.10	0.14	0.14	0.18	0.20	0.20	0.18	0.29	0.29	0.11	0.22	0.22
Crit Moves:		****		****			****				****	
Green Time:	18.5	25.9	25.9	31.4	38.8	38.8	32.9	51.3	51.3	20.5	38.8	38.8
Volume/Cap:	0.74	0.79	0.79	0.79	0.74	0.74	0.79	0.79	0.79	0.79	0.79	0.79
Uniform Del:	58.9	55.0	55.0	51.7	46.5	46.5	50.8	40.0	40.0	58.2	47.3	47.3
IncremntDel:	19.0	9.0	9.0	14.9	4.8	4.8	14.3	3.2	3.2	13.0	4.2	4.2
InitQueuDel:	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:	77.9	64.0	64.0	66.6	51.2	51.2	65.0	43.2	43.2	71.2	51.4	51.4
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:	77.9	64.0	64.0	66.6	51.2	51.2	65.0	43.2	43.2	71.2	51.4	51.4
LOS by Move:	E-	E	E	E	D-	D-	E	D	D	E	D-	D-
HCM2kAvgQ:	228	328	328	381	404	404	396	557	557	274	450	450

Note: Queue reported is the distance per lane in feet.

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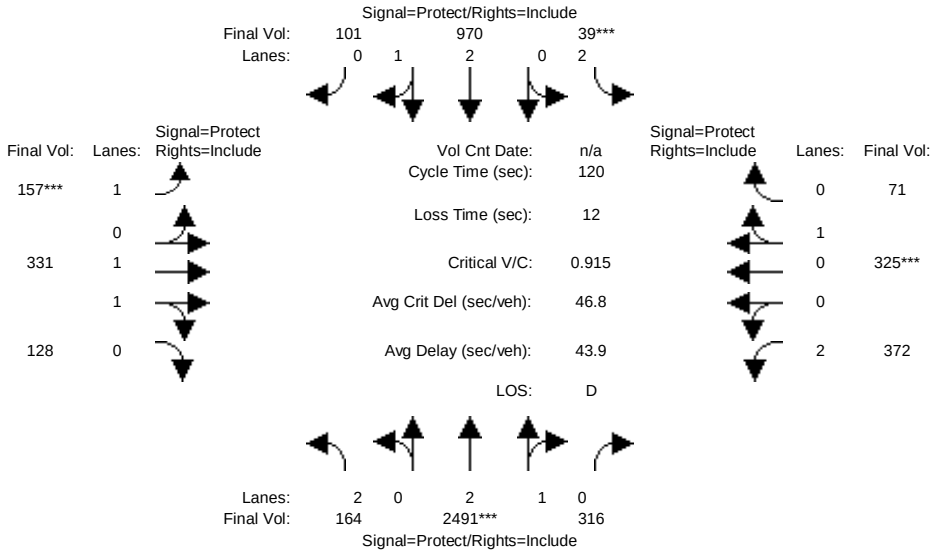
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #4: Sunnyvale Saratoga Road/Remington Drive



Street Name:	Sunnyvale Saratoga Road						Remington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	159	2486	316	39	962	101	157	331	120	372	325	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	159	2486	316	39	962	101	157	331	120	372	325	71
Added Vol:	5	5	0	0	8	0	0	0	8	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	164	2491	316	39	970	101	157	331	128	372	325	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:	164	2491	316	39	970	101	157	331	128	372	325	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	164	2491	316	39	970	101	157	331	128	372	325	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:	164	2491	316	39	970	101	157	331	128	372	325	71
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	0.99	0.95	0.92	0.98	0.95	0.83	0.95	0.95
Lanes:	2.00	2.65	0.35	2.00	2.71	0.29	1.00	1.43	0.57	2.00	0.82	0.18
Final Sat.:	3150	4969	630	3150	5071	528	1750	2667	1032	3150	1477	323
Capacity Analysis Module:												
Vol/Sat:	0.05	0.50	0.50	0.01	0.19	0.19	0.09	0.12	0.12	0.12	0.22	0.22
Crit Moves:		****		****			****				****	
Green Time:	16.2	62.4	62.4	7.0	53.2	53.2	11.2	19.8	19.8	18.8	27.4	27.4
Volume/Cap:	0.39	0.96	0.96	0.21	0.43	0.43	0.96	0.75	0.75	0.75	0.96	0.96
Uniform Del:	47.3	27.7	27.7	53.9	23.0	23.0	54.2	47.8	47.8	48.4	45.8	45.8
IncremntDel:	2.6	10.1	10.1	2.6	0.5	0.5	61.5	8.4	8.4	10.2	36.2	36.2
InitQueuDel:	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	37.8	37.8	56.5	23.5	23.5	115.7	56.2	56.2	58.6	82.0	82.0
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:	50.0	37.8	37.8	56.5	23.5	23.5	115.7	56.2	56.2	58.6	82.0	82.0
LOS by Move:	D	D+	D+	E+	C	C	F	E+	E+	E+	F	F
HCM2kAvgQ:	90	986	986	25	227	227	247	248	248	239	502	502

Note: Queue reported is the distance per lane in feet.

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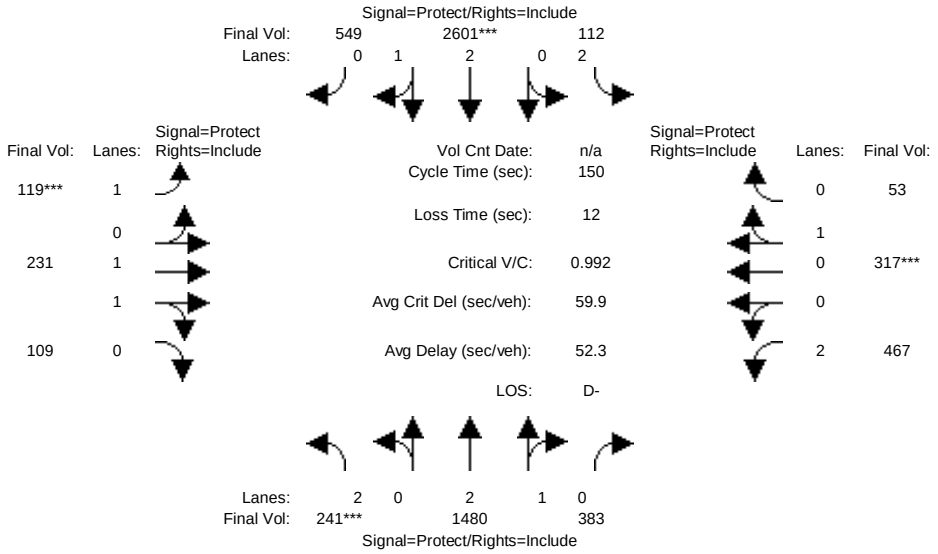
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #4: Sunnyvale Saratoga Road/Remington Drive



Street Name:	Sunnyvale Saratoga Road						Remington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	212	1451	383	112	2574	549	119	231	82	467	317	53
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	212	1451	383	112	2574	549	119	231	82	467	317	53
Added Vol:	29	29	0	0	27	0	0	0	27	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	241	1480	383	112	2601	549	119	231	109	467	317	53
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	241	1480	383	112	2601	549	119	231	109	467	317	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	241	1480	383	112	2601	549	119	231	109	467	317	53
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	241	1480	383	112	2601	549	119	231	109	467	317	53
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	0.99	0.95	0.92	0.99	0.95	0.83	0.95	0.95
Lanes:	2.00	2.36	0.64	2.00	2.46	0.54	1.00	1.34	0.66	2.00	0.86	0.14
Final Sat.:	3150	4447	1151	3150	4623	976	1750	2513	1186	3150	1542	258
Capacity Analysis Module:												
Vol/Sat:	0.08	0.33	0.33	0.04	0.56	0.56	0.07	0.09	0.09	0.15	0.21	0.21
Crit Moves:	****				****		****				****	
Green Time:	11.6	84.8	84.8	11.9	85.1	85.1	10.3	15.8	15.8	25.5	31.1	31.1
Volume/Cap:	0.99	0.59	0.59	0.45	0.99	0.99	0.99	0.87	0.87	0.87	0.99	0.99
Uniform Del:	69.2	21.3	21.3	65.9	32.1	32.1	69.8	66.1	66.1	60.6	59.3	59.3
IncremntDel:	55.8	0.8	0.8	5.7	14.2	14.2	80.1	22.5	22.5	17.4	44.7	44.7
InitQueuDel:	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:	124.9	22.1	22.1	71.7	46.4	46.4	149.9	88.5	88.5	78.1	104	104.0
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:	124.9	22.1	22.1	71.7	46.4	46.4	149.9	88.5	88.5	78.1	104	104.0
LOS by Move:	F	C+	C+	E	D	D	F	F	F	E-	F	F
HCM2kAvgQ:	256	464	464	86	1378	1378	233	262	262	383	576	576

Note: Queue reported is the distance per lane in feet.

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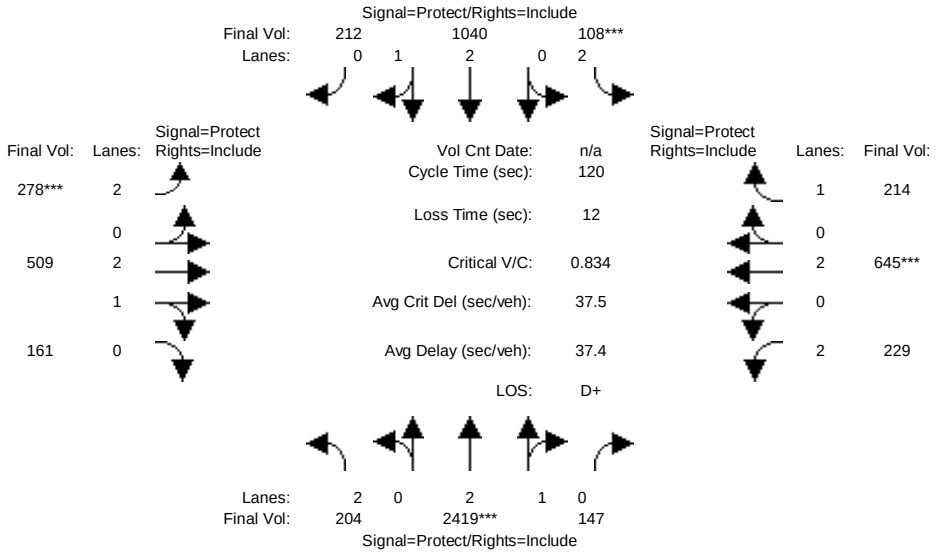
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #5: Sunnyvale Saratoga Road/Fremont Avenue



Street Name:	Sunnyvale Saratoga Road						Fremont Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	204	2409	147	108	1024	212	278	509	161	229	645	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
Initial Bse:	204	2409	147	108	1024	212	278	509	161	229	645	214
Added Vol:	0	10	0	0	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	204	2419	147	108	1040	212	278	509	161	229	645	214
User Adj:	1.00	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:	204	2419	147	108	1040	212	278	509	161	229	645	214
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	204	2419	147	108	1040	212	278	509	161	229	645	214
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	204	2419	147	108	1040	212	278	509	161	229	645	214
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.98	0.95	0.83	0.99	0.95	0.83	0.99	0.95	0.83	1.00	0.92
Lanes:	2.00	2.82	0.18	2.00	2.47	0.53	2.00	2.25	0.75	2.00	2.00	1.00
Final Sat.:	3150	5279	321	3150	4651	948	3150	4253	1345	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.46	0.46	0.03	0.22	0.22	0.09	0.12	0.12	0.07	0.17	0.12
Crit Moves:		****			****			****			****	
Green Time:	16.1	64.6	64.6	7.0	55.5	55.5	12.4	22.6	22.6	13.7	23.9	23.9
Volume/Cap:	0.48	0.85	0.85	0.59	0.48	0.48	0.85	0.63	0.63	0.63	0.85	0.61
Uniform Del:	48.1	23.6	23.6	55.1	22.3	22.3	52.9	44.9	44.9	50.7	46.3	43.8
IncremntDel:	3.9	3.3	3.3	13.0	0.6	0.6	23.3	2.9	2.9	8.2	11.6	7.8
InitQueuDel:	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:	52.0	26.8	26.8	68.1	22.9	22.9	76.2	47.8	47.8	59.0	57.9	51.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.0	26.8	26.8	68.1	22.9	22.9	76.2	47.8	47.8	59.0	57.9	51.6
LOS by Move:	D-	C	C	E	C+	C+	E-	D	D	E+	E+	D-
HCM2kAvgQ:	117	733	733	82	268	268	215	214	214	148	352	213

Note: Queue reported is the distance per lane in feet.

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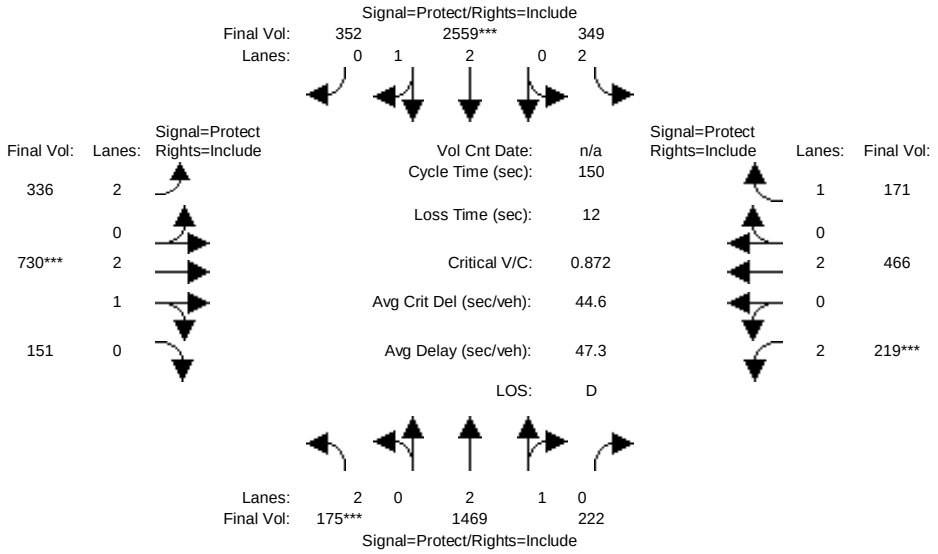
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #5: Sunnyvale Saratoga Road/Fremont Avenue



Street Name:	Sunnyvale Saratoga Road						Fremont Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	175	1411	222	349	2505	352	336	730	151	219	466	171
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	175	1411	222	349	2505	352	336	730	151	219	466	171
Added Vol:	0	58	0	0	54	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	175	1469	222	349	2559	352	336	730	151	219	466	171
User Adj:	1.00	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:	175	1469	222	349	2559	352	336	730	151	219	466	171
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	175	1469	222	349	2559	352	336	730	151	219	466	171
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	175	1469	222	349	2559	352	336	730	151	219	466	171
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	0.99	0.95	0.83	0.99	0.95	0.83	1.00	0.92
Lanes:	2.00	2.59	0.41	2.00	2.62	0.38	2.00	2.47	0.53	2.00	2.00	1.00
Final Sat.:	3150	4864	735	3150	4922	677	3150	4639	960	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.30	0.30	0.11	0.52	0.52	0.11	0.16	0.16	0.07	0.12	0.10
Crit Moves:	****				****			****			****	
Green Time:	9.6	72.4	72.4	26.6	89.4	89.4	18.2	27.1	27.1	12.0	20.9	20.9
Volume/Cap:	0.87	0.63	0.63	0.63	0.87	0.87	0.88	0.87	0.87	0.87	0.88	0.70
Uniform Del:	69.6	28.7	28.7	57.1	25.5	25.5	64.9	59.8	59.8	68.3	63.4	61.6
IncremntDel:	37.2	1.1	1.1	5.2	3.5	3.5	24.2	10.3	10.3	31.6	18.7	15.6
InitQueuDel:	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:	106.8	29.9	29.9	62.3	28.9	28.9	89.0	70.1	70.1	99.8	82.1	77.2
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:	106.8	29.9	29.9	62.3	28.9	28.9	89.0	70.1	70.1	99.8	82.1	77.2
LOS by Move:	F	C	C	E	C	C	F	E	E	F	F	E-
HCM2kAvgQ:	179	483	483	241	998	998	298	402	402	212	333	234

Note: Queue reported is the distance per lane in feet.

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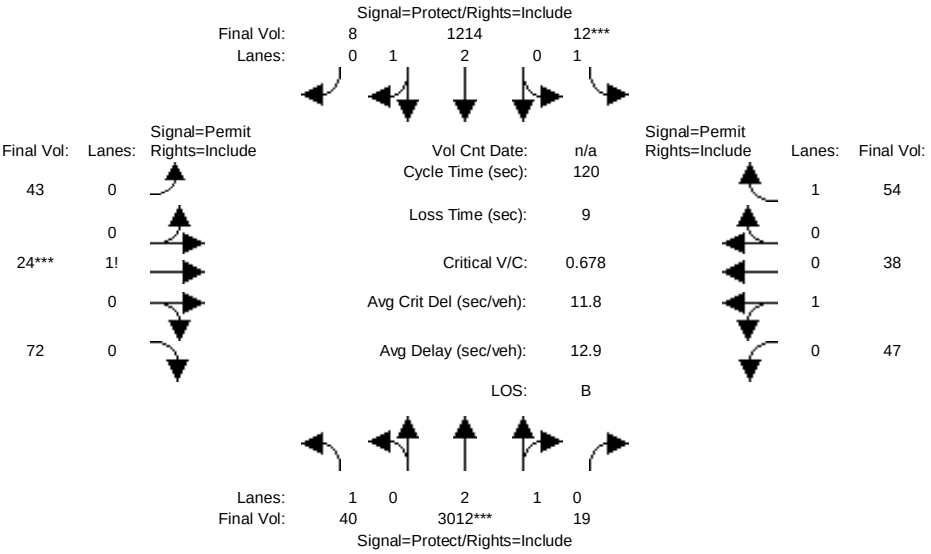
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #6: Sunnyvale Saratoga Road/Cheyenne Drive



Street Name:	Sunnyvale Saratoga Road						Cheyenne Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	40	3002	19	12	1198	8	43	24	72	47	38	54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	40	3002	19	12	1198	8	43	24	72	47	38	54
Added Vol:	0	10	0	0	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	40	3012	19	12	1214	8	43	24	72	47	38	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:	40	3012	19	12	1214	8	43	24	72	47	38	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	3012	19	12	1214	8	43	24	72	47	38	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:	40	3012	19	12	1214	8	43	24	72	47	38	54
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.92	0.92	0.95	0.95	0.92
Lanes:	1.00	2.98	0.02	1.00	2.98	0.02	0.31	0.17	0.52	0.55	0.45	1.00
Final Sat.:	1750	5565	35	1750	5563	37	541	302	906	995	805	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.54	0.54	0.01	0.22	0.22	0.08	0.08	0.08	0.05	0.05	0.03
Crit Moves:		****		****				****				
Green Time:	20.6	90.7	90.7	7.0	77.1	77.1	13.3	13.3	13.3	13.3	13.3	13.3
Volume/Cap:	0.13	0.72	0.72	0.12	0.34	0.34	0.72	0.72	0.72	0.43	0.43	0.28
Uniform Del:	42.1	7.8	7.8	53.6	9.8	9.8	51.5	51.5	51.5	49.8	49.8	48.9
IncremntDel:	0.9	1.1	1.1	2.3	0.3	0.3	20.2	20.2	20.2	6.5	6.5	3.5
InitQueuDel:	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:	43.0	8.9	8.9	55.9	10.1	10.1	71.7	71.7	71.7	56.3	56.3	52.5
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:	43.0	8.9	8.9	55.9	10.1	10.1	71.7	71.7	71.7	56.3	56.3	52.5
LOS by Move:	D	A	A	E+	B+	B+	E	E	E	E+	E+	D-
HCM2kAvgQ:	34	517	517	14	171	171	171	171	171	87	87	54

Note: Queue reported is the distance per lane in feet.

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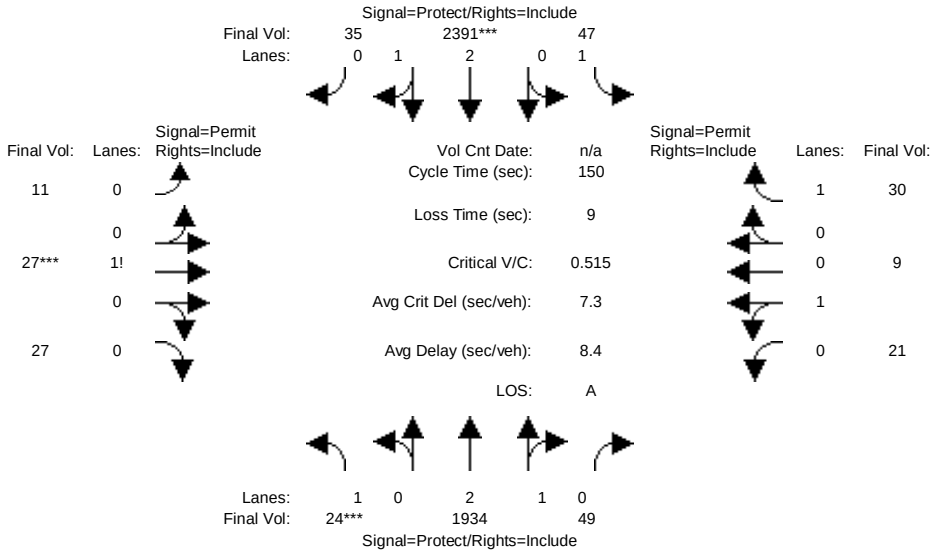
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #6: Sunnyvale Saratoga Road/Cheyenne Drive



Street Name:	Sunnyvale Saratoga Road						Cheyenne Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	24	1876	49	47	2337	35	11	27	27	21	9	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	24	1876	49	47	2337	35	11	27	27	21	9	30
Added Vol:	0	58	0	0	54	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	24	1934	49	47	2391	35	11	27	27	21	9	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:	24	1934	49	47	2391	35	11	27	27	21	9	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	1934	49	47	2391	35	11	27	27	21	9	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:	24	1934	49	47	2391	35	11	27	27	21	9	30
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.92	0.92	0.95	0.95	0.92
Lanes:	1.00	2.92	0.08	1.00	2.96	0.04	0.17	0.42	0.41	0.70	0.30	1.00
Final Sat.:	1750	5461	138	1750	5519	81	296	727	727	1260	540	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.35	0.35	0.03	0.43	0.43	0.04	0.04	0.04	0.02	0.02	0.02
Crit Moves:	****				****			****				
Green Time:	7.0	115	115.2	15.2	123	123.4	10.6	10.6	10.6	10.6	10.6	10.6
Volume/Cap:	0.29	0.46	0.46	0.27	0.53	0.53	0.53	0.53	0.53	0.24	0.24	0.24
Uniform Del:	69.1	6.2	6.2	62.3	4.2	4.2	67.3	67.3	67.3	65.9	65.9	65.9
IncremntDel:	8.9	0.4	0.4	3.6	0.4	0.4	15.1	15.1	15.1	4.3	4.3	4.6
InitQueuDel:	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:	78.0	6.6	6.6	65.9	4.6	4.6	82.4	82.4	82.4	70.2	70.2	70.5
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:	78.0	6.6	6.6	65.9	4.6	4.6	82.4	82.4	82.4	70.2	70.2	70.5
LOS by Move:	E-	A	A	E	A	A	F	F	F	E	E	E
HCM2kAvgQ:	36	273	273	58	296	296	96	96	96	39	39	40

Note: Queue reported is the distance per lane in feet.

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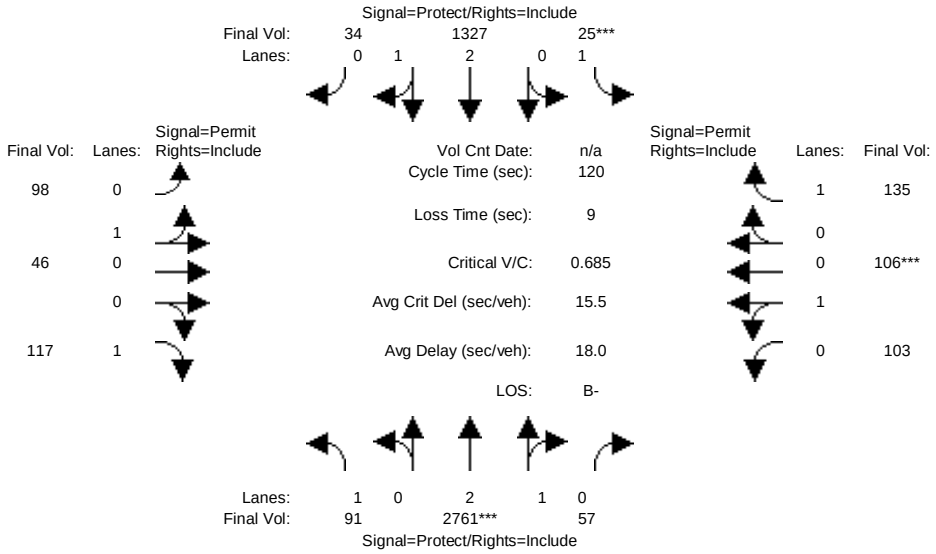
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #7: Sunnyvale Saratoga Road/Alberta Avenue



Street Name:	Sunnyvale Saratoga Road						Alberta Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	91	2751	57	25	1311	34	98	46	117	103	106	135
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	2751	57	25	1311	34	98	46	117	103	106	135
Added Vol:	0	10	0	0	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	91	2761	57	25	1327	34	98	46	117	103	106	135
User Adj:	1.00	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	2761	57	25	1327	34	98	46	117	103	106	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	2761	57	25	1327	34	98	46	117	103	106	135
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	2761	57	25	1327	34	98	46	117	103	106	135
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.94	0.06	1.00	2.92	0.08	0.68	0.32	1.00	0.49	0.51	1.00
Final Sat.:	1750	5487	113	1750	5460	140	1225	575	1750	887	913	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.50	0.50	0.01	0.24	0.24	0.08	0.08	0.07	0.12	0.12	0.08
Crit Moves:		****		****							****	
Green Time:	17.7	84.5	84.5	7.0	73.8	73.8	19.5	19.5	19.5	19.5	19.5	19.5
Volume/Cap:	0.35	0.71	0.71	0.24	0.40	0.40	0.49	0.49	0.41	0.71	0.71	0.47
Uniform Del:	46.0	10.6	10.6	54.0	11.8	11.8	45.7	45.7	45.1	47.6	47.6	45.6
IncremntDel:	3.7	1.1	1.1	5.6	0.3	0.3	5.8	5.8	4.4	13.9	13.9	5.6
InitQueuDel:	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	11.7	11.7	59.6	12.1	12.1	51.6	51.6	49.5	61.5	61.5	51.2
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:	49.7	11.7	11.7	59.6	12.1	12.1	51.6	51.6	49.5	61.5	61.5	51.2
LOS by Move:	D	B+	B+	E+	B	B	D-	D-	D	E	E	D-
HCM2kAvgQ:	87	534	534	29	212	212	138	138	112	227	227	133

Note: Queue reported is the distance per lane in feet.

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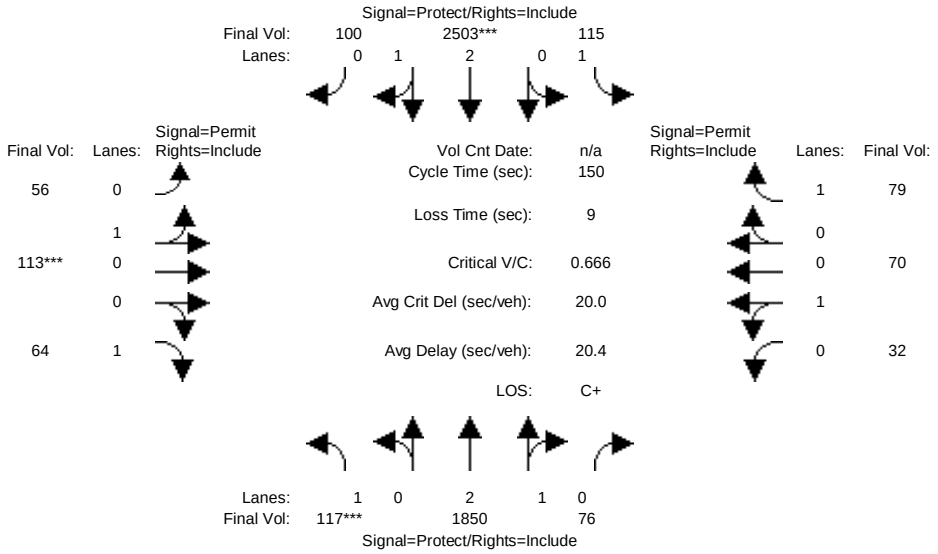
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #7: Sunnyvale Saratoga Road/Alberta Avenue



Street Name:	Sunnyvale Saratoga Road						Alberta Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	117	1792	76	115	2449	100	56	113	64	32	70	79
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	117	1792	76	115	2449	100	56	113	64	32	70	79
Added Vol:	0	58	0	0	54	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	117	1850	76	115	2503	100	56	113	64	32	70	79
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	117	1850	76	115	2503	100	56	113	64	32	70	79
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	117	1850	76	115	2503	100	56	113	64	32	70	79
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	117	1850	76	115	2503	100	56	113	64	32	70	79
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.88	0.12	1.00	2.88	0.12	0.33	0.67	1.00	0.31	0.69	1.00
Final Sat.:	1750	5379	221	1750	5385	215	596	1204	1750	565	1235	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.34	0.34	0.07	0.46	0.46	0.09	0.09	0.04	0.06	0.06	0.05
Crit Moves:	****				****			****				
Green Time:	15.1	101	100.6	19.2	105	104.8	21.2	21.2	21.2	21.2	21.2	21.2
Volume/Cap:	0.67	0.51	0.51	0.51	0.67	0.67	0.67	0.67	0.26	0.40	0.40	0.32
Uniform Del:	65.0	12.4	12.4	61.0	12.7	12.7	61.1	61.1	57.4	58.7	58.7	57.9
IncremntDel:	18.2	0.5	0.5	8.1	0.9	0.9	13.0	13.0	2.5	4.7	4.7	3.4
InitQueuDel:	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:	83.2	12.9	12.9	69.2	13.7	13.7	74.0	74.0	60.0	63.3	63.3	61.3
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:	83.2	12.9	12.9	69.2	13.7	13.7	74.0	74.0	60.0	63.3	63.3	61.3
LOS by Move:	F	B	B	E	B	B	E	E	E+	E	E	E
HCM2kAvgQ:	169	368	368	146	566	566	219	219	73	118	118	92

Note: Queue reported is the distance per lane in feet.

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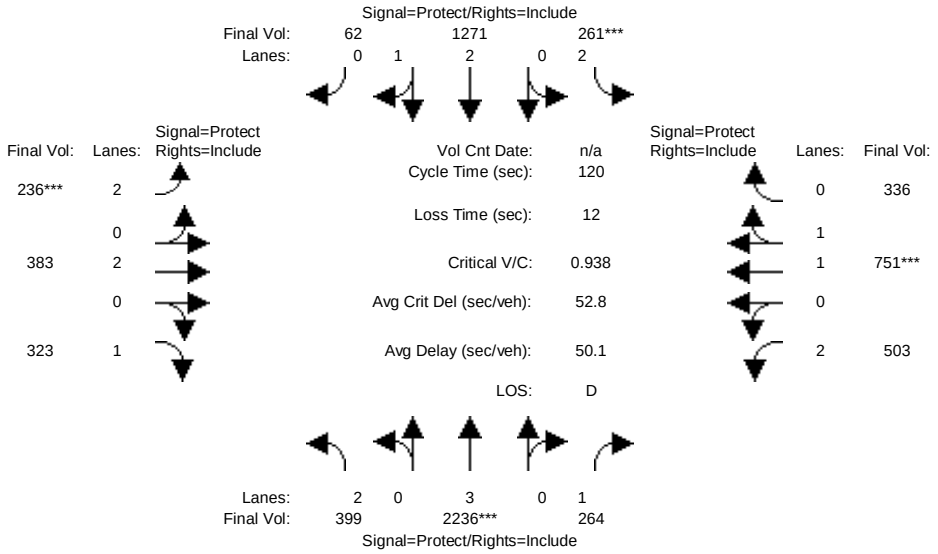
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #8: De Anza Boulevard/Homestead Road



Street Name:	De Anza Boulevard						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	394	2226	264	261	1255	62	236	379	315	503	749	336
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	394	2226	264	261	1255	62	236	379	315	503	749	336
Added Vol:	5	10	0	0	16	0	0	4	8	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	399	2236	264	261	1271	62	236	383	323	503	751	336
User Adj:	1.00	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	2236	264	261	1271	62	236	383	323	503	751	336
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	399	2236	264	261	1271	62	236	383	323	503	751	336
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	2236	264	261	1271	62	236	383	323	503	751	336
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.98	0.95	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	2.00	3.00	1.00	2.00	2.86	0.14	2.00	2.00	1.00	2.00	1.36	0.64
Final Sat.:	3150	5700	1750	3150	5339	260	3150	3800	1750	3150	2555	1143
Capacity Analysis Module:												
Vol/Sat:	0.13	0.39	0.15	0.08	0.24	0.24	0.07	0.10	0.18	0.16	0.29	0.29
Crit Moves:		****		****			****				****	
Green Time:	21.1	50.2	50.2	10.6	39.7	39.7	9.6	25.3	25.3	21.9	37.6	37.6
Volume/Cap:	0.72	0.94	0.36	0.94	0.72	0.72	0.94	0.48	0.88	0.88	0.94	0.94
Uniform Del:	46.6	33.4	23.9	54.4	35.3	35.3	54.9	41.6	45.8	47.7	40.1	40.1
IncremntDel:	7.9	8.7	1.4	40.1	2.4	2.4	42.7	2.0	24.0	16.9	15.2	15.2
InitQueuDel:	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	42.1	25.3	94.4	37.7	37.7	97.6	43.6	69.8	64.6	55.2	55.2
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:	54.5	42.1	25.3	94.4	37.7	37.7	97.6	43.6	69.8	64.6	55.2	55.2
LOS by Move:	D-	D	C	F	D+	D+	F	D	E	E	E+	E+
HCM2kAvgQ:	243	771	178	226	389	389	210	162	388	347	611	611

Note: Queue reported is the distance per lane in feet.

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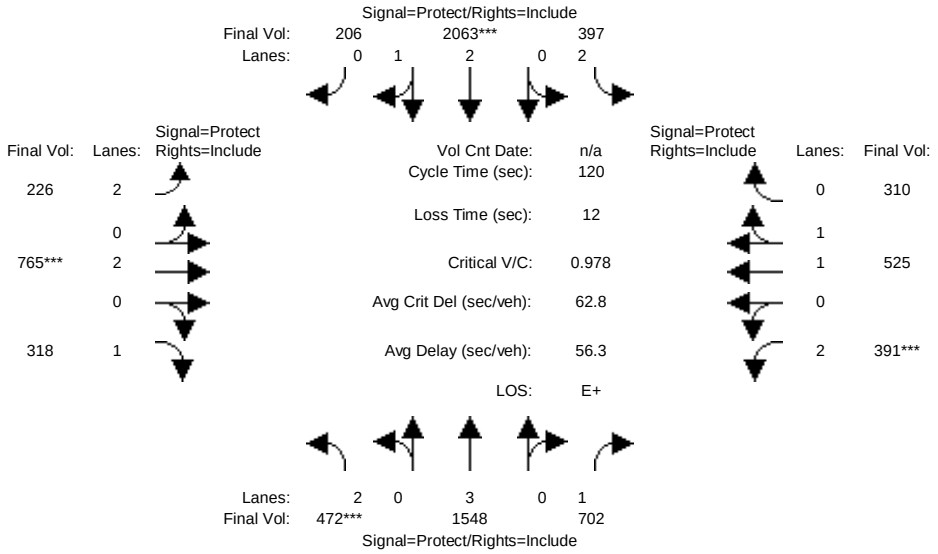
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #8: De Anza Boulevard/Homestead Road



Street Name:	De Anza Boulevard						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	443	1490	702	397	2009	206	226	752	291	391	510	310
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	443	1490	702	397	2009	206	226	752	291	391	510	310
Added Vol:	29	58	0	0	54	0	0	13	27	0	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	472	1548	702	397	2063	206	226	765	318	391	525	310
User Adj:	1.00	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:	472	1548	702	397	2063	206	226	765	318	391	525	310
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	472	1548	702	397	2063	206	226	765	318	391	525	310
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	472	1548	702	397	2063	206	226	765	318	391	525	310
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.99	0.95	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	2.00	3.00	1.00	2.00	2.72	0.28	2.00	2.00	1.00	2.00	1.24	0.76
Final Sat.:	3150	5700	1750	3150	5091	508	3150	3800	1750	3150	2325	1373
Capacity Analysis Module:												
Vol/Sat:	0.15	0.27	0.40	0.13	0.41	0.41	0.07	0.20	0.18	0.12	0.23	0.23
Crit Moves:	****				****			****			****	
Green Time:	18.4	51.8	51.8	16.3	49.7	49.7	9.6	24.7	24.7	15.2	30.3	30.3
Volume/Cap:	0.98	0.63	0.93	0.93	0.98	0.98	0.89	0.98	0.88	0.98	0.89	0.89
Uniform Del:	50.6	26.6	32.4	51.3	34.6	34.6	54.7	47.4	46.3	52.2	43.3	43.3
IncremntDel:	35.9	1.2	19.4	29.0	14.2	14.2	34.8	27.3	25.4	39.9	12.9	12.9
InitQueuDel:	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:	86.6	27.8	51.8	80.3	48.9	48.9	89.5	74.7	71.7	92.1	56.2	56.2
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:	86.6	27.8	51.8	80.3	48.9	48.9	89.5	74.7	71.7	92.1	56.2	56.2
LOS by Move:	F	C	D-	F	D	D	F	E	E	F	E+	E+
HCM2kAvgQ:	376	376	772	309	852	852	194	477	387	324	465	465

Note: Queue reported is the distance per lane in feet.

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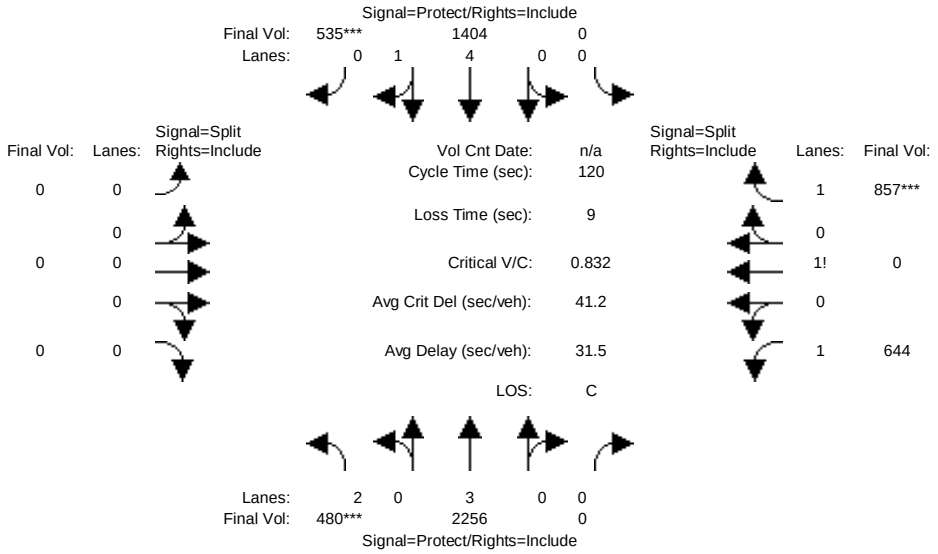
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #9: De Anza Boulevard/I-280 Ramps North



Street Name:	De Anza Boulevard						I-280 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	480	2242	0	0	1380	535	0	0	0	644	0	857
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	480	2242	0	0	1380	535	0	0	0	644	0	857
Added Vol:	0	14	0	0	24	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	480	2256	0	0	1404	535	0	0	0	644	0	857
User Adj:	1.00	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:	480	2256	0	0	1404	535	0	0	0	644	0	857
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	480	2256	0	0	1404	535	0	0	0	644	0	857
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	480	2256	0	0	1404	535	0	0	0	644	0	857
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	0.00	0.00	4.00	1.00	0.00	0.00	0.00	1.43	0.00	1.57
Final Sat.:	3150	5700	0	0	7600	1750	0	0	0	2501	0	2749
Capacity Analysis Module:												
Vol/Sat:	0.15	0.40	0.00	0.00	0.18	0.31	0.00	0.00	0.00	0.26	0.00	0.31
Crit Moves:	****					****						****
Green Time:	22.0	66.1	0.0	0.0	44.1	44.1	0.0	0.0	0.0	44.9	0.0	44.9
Volume/Cap:	0.83	0.72	0.00	0.00	0.50	0.83	0.00	0.00	0.00	0.69	0.00	0.83
Uniform Del:	47.2	20.1	0.0	0.0	29.5	34.6	0.0	0.0	0.0	31.6	0.0	34.1
IncremntDel:	13.2	1.5	0.0	0.0	0.5	3.7	0.0	0.0	0.0	1.8	0.0	4.7
InitQueuDel:	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	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	60.4	21.5	0.0	0.0	29.9	38.2	0.0	0.0	0.0	33.4	0.0	38.8
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:	60.4	21.5	0.0	0.0	29.9	38.2	0.0	0.0	0.0	33.4	0.0	38.8
LOS by Move:	E	C+	A	A	C	D+	A	A	A	C-	A	D+
HCM2kAvgQ:	261	501	0	0	252	539	0	0	0	395	0	547

Note: Queue reported is the distance per lane in feet.

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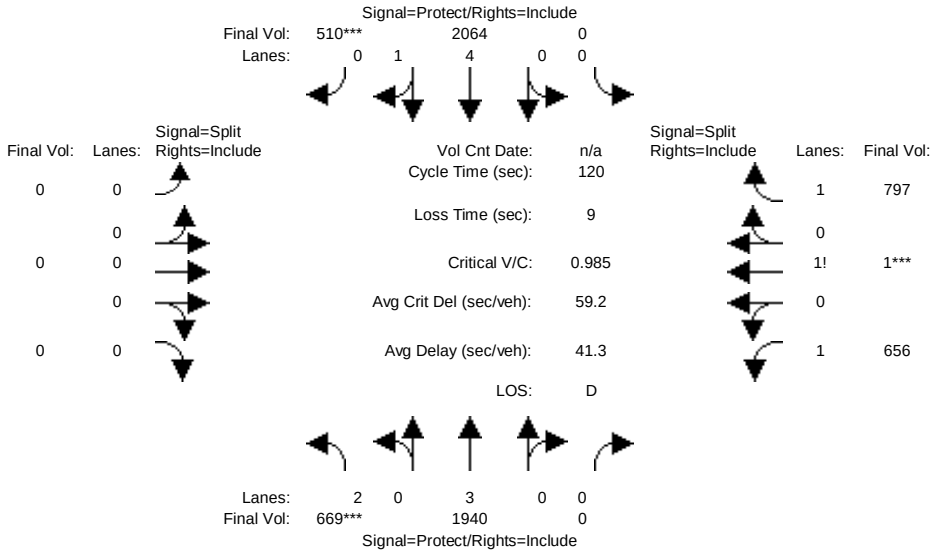
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #9: De Anza Boulevard/I-280 Ramps North



Street Name:	De Anza Boulevard						I-280 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	669	1853	0	0	1984	510	0	0	0	656	1	797
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	669	1853	0	0	1984	510	0	0	0	656	1	797
Added Vol:	0	87	0	0	80	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	669	1940	0	0	2064	510	0	0	0	656	1	797
User Adj:	1.00	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:	669	1940	0	0	2064	510	0	0	0	656	1	797
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	669	1940	0	0	2064	510	0	0	0	656	1	797
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	669	1940	0	0	2064	510	0	0	0	656	1	797
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.95	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	2.00	3.00	0.00	0.00	4.00	1.00	0.00	0.00	0.00	1.45	0.01	1.54
Final Sat.:	3150	5700	0	0	7599	1800	0	0	0	2539	2	2709
Capacity Analysis Module:												
Vol/Sat:	0.21	0.34	0.00	0.00	0.27	0.28	0.00	0.00	0.00	0.26	0.42	0.29
Crit Moves:	****					****					****	
Green Time:	25.9	60.4	0.0	0.0	34.5	34.5	0.0	0.0	0.0	50.6	50.6	50.6
Volume/Cap:	0.99	0.68	0.00	0.00	0.94	0.99	0.00	0.00	0.00	0.61	0.99	0.70
Uniform Del:	46.9	22.5	0.0	0.0	41.8	42.5	0.0	0.0	0.0	27.0	34.3	28.4
IncremntDel:	31.1	1.3	0.0	0.0	8.4	14.5	0.0	0.0	0.0	1.2	20.2	2.0
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	78.0	23.8	0.0	0.0	50.2	57.0	0.0	0.0	0.0	28.2	54.5	30.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	78.0	23.8	0.0	0.0	50.2	57.0	0.0	0.0	0.0	28.2	54.5	30.4
LOS by Move:	E-	C	A	A	D	E+	A	A	A	C	D-	C
HCM2kAvgQ:	472	466	0	0	580	639	0	0	0	357	882	435

Note: Queue reported is the distance per lane in feet.

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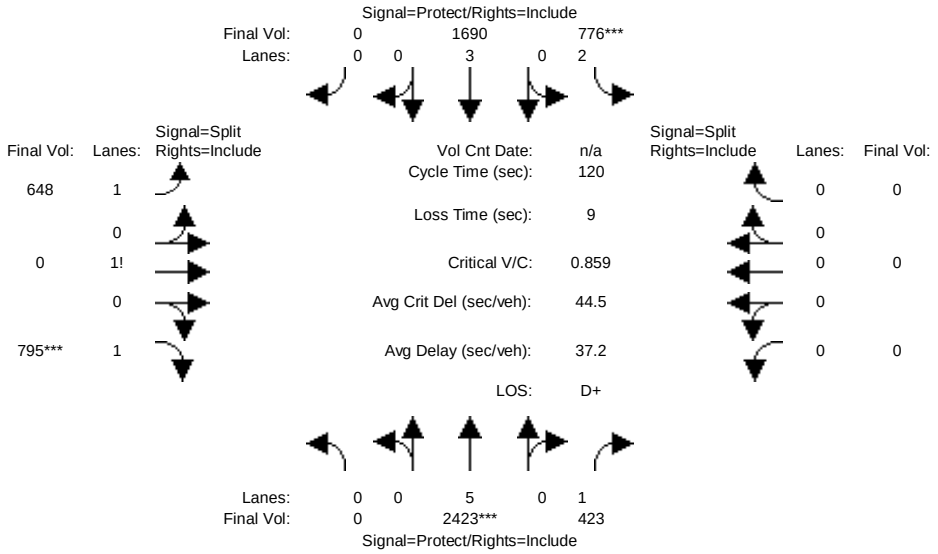
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #10: De Anza Boulevard/I-280 Ramps South



Street Name:	De Anza Boulevard						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	7	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	2409	423	776	1666	0	648	0	795	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2409	423	776	1666	0	648	0	795	0	0	0
Added Vol:	0	14	0	0	24	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2423	423	776	1690	0	648	0	795	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	2423	423	776	1690	0	648	0	795	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2423	423	776	1690	0	648	0	795	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	2423	423	776	1690	0	648	0	795	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	5.00	1.00	2.00	3.00	0.00	1.45	0.00	1.55	0.00	0.00	0.00
Final Sat.:	0	9500	1750	3150	5700	0	2536	0	2714	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.26	0.24	0.25	0.30	0.00	0.26	0.00	0.29	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green Time:	0.0	35.6	35.6	34.4	70.1	0.0	40.9	0.0	40.9	0.0	0.0	0.0
Volume/Cap:	0.00	0.86	0.81	0.86	0.51	0.00	0.75	0.00	0.86	0.00	0.00	0.00
Uniform Del:	0.0	39.8	39.1	40.5	14.8	0.0	35.0	0.0	36.8	0.0	0.0	0.0
IncremntDel:	0.0	3.7	13.1	10.4	0.6	0.0	2.7	0.0	6.0	0.0	0.0	0.0
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	43.5	52.2	50.9	15.3	0.0	37.7	0.0	42.8	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:	0.0	43.5	52.2	50.9	15.3	0.0	37.7	0.0	42.8	0.0	0.0	0.0
LOS by Move:	A	D	D-	D	B	A	D+	A	D	A	A	A
HCM2kAvgQ:	0	488	441	456	310	0	424	0	542	0	0	0

Note: Queue reported is the distance per lane in feet.

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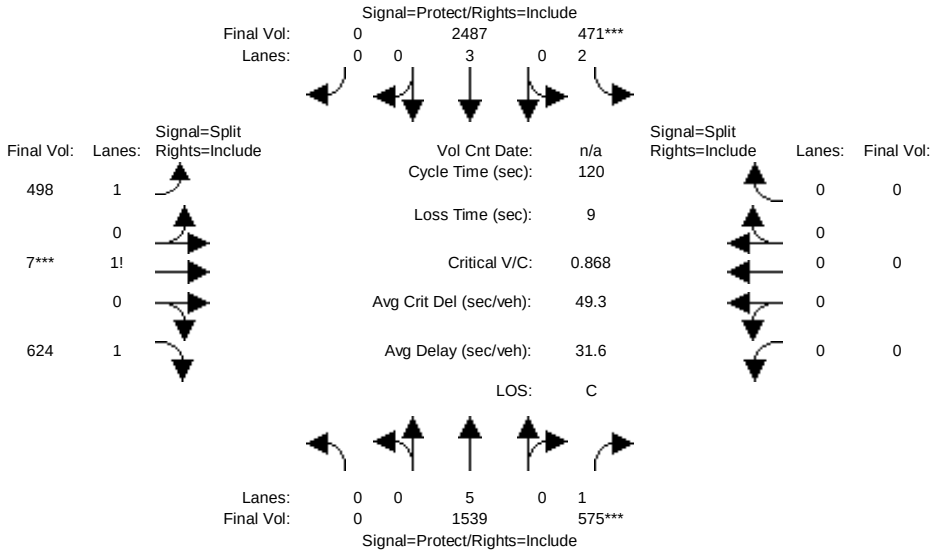
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #10: De Anza Boulevard/I-280 Ramps South



Street Name:	De Anza Boulevard						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	7	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1452	575	471	2407	0	498	7	624	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1452	575	471	2407	0	498	7	624	0	0	0
Added Vol:	0	87	0	0	80	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1539	575	471	2487	0	498	7	624	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	1539	575	471	2487	0	498	7	624	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1539	575	471	2487	0	498	7	624	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	1539	575	471	2487	0	498	7	624	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92
Lanes:	0.00	5.00	1.00	2.00	3.00	0.00	1.44	0.01	1.55	0.00	0.00	0.00
Final Sat.:	0	9500	1750	3150	5700	0	2517	22	2711	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.16	0.33	0.15	0.44	0.00	0.20	0.32	0.23	0.00	0.00	0.00
Crit Moves:			****	****				****				
Green Time:	0.0	45.4	45.4	20.7	66.1	0.0	44.9	44.9	44.9	0.0	0.0	0.0
Volume/Cap:	0.00	0.43	0.87	0.87	0.79	0.00	0.53	0.87	0.62	0.00	0.00	0.00
Uniform Del:	0.0	27.6	34.5	48.3	21.5	0.0	29.3	34.8	30.5	0.0	0.0	0.0
IncremntDel:	0.0	0.4	14.4	16.9	2.1	0.0	0.9	8.0	1.6	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	28.0	48.9	65.3	23.6	0.0	30.3	42.8	32.1	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	28.0	48.9	65.3	23.6	0.0	30.3	42.8	32.1	0.0	0.0	0.0
LOS by Move:	A	C	D	E	C	A	C	D	C-	A	A	A
HCM2kAvgQ:	0	209	599	250	579	0	272	594	335	0	0	0

Note: Queue reported is the distance per lane in feet.

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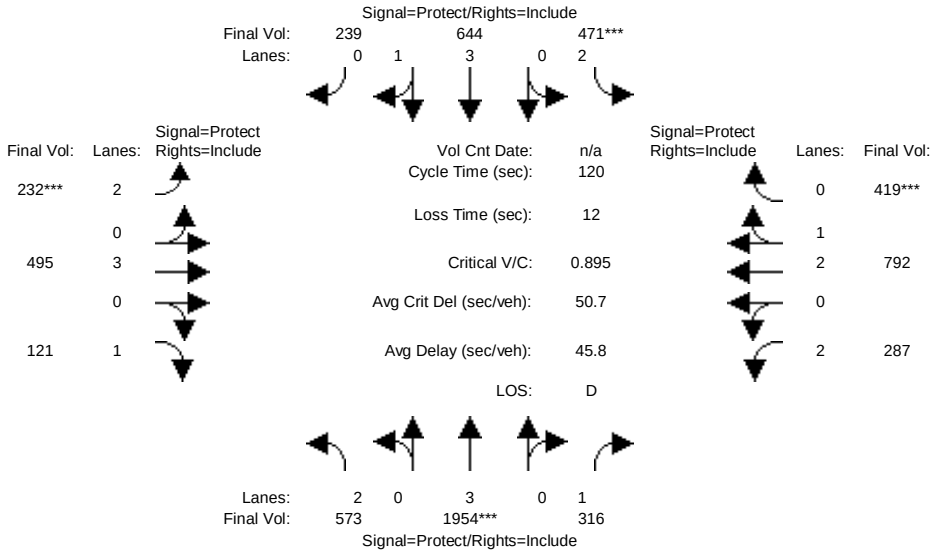
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #11: De Anza Boulevard/Stevens Creek Boulevard



Street Name:	De Anza Boulevard						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	573	1954	312	440	644	239	232	471	121	285	778	400
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	573	1954	312	440	644	239	232	471	121	285	778	400
Added Vol:	0	0	4	31	0	0	0	24	0	2	14	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	573	1954	316	471	644	239	232	495	121	287	792	419
User Adj:	1.00	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:	573	1954	316	471	644	239	232	495	121	287	792	419
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	573	1954	316	471	644	239	232	495	121	287	792	419
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	573	1954	316	471	644	239	232	495	121	287	792	419
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	5700	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.18	0.34	0.18	0.15	0.11	0.14	0.07	0.09	0.07	0.09	0.21	0.24
Crit Moves:		****		****			****					****
Green Time:	37.7	46.0	46.0	20.1	28.3	28.3	9.9	20.5	20.5	21.5	32.1	32.1
Volume/Cap:	0.58	0.89	0.47	0.89	0.48	0.58	0.89	0.51	0.40	0.51	0.78	0.89
Uniform Del:	34.5	34.7	27.9	48.9	39.5	40.6	54.5	45.2	44.3	44.5	40.7	42.3
IncremntDel:	2.5	6.2	2.4	20.4	0.9	1.6	34.3	1.9	4.0	3.3	3.9	9.4
InitQueuDel:	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:	37.0	41.0	30.2	69.3	40.4	42.2	88.8	47.1	48.4	47.7	44.6	51.8
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:	37.0	41.0	30.2	69.3	40.4	42.2	88.8	47.1	48.4	47.7	44.6	51.8
LOS by Move:	D+	D	C	E	D	D	F	D	D	D	D	D-
HCM2kAvgQ:	274	645	237	338	176	224	198	150	114	155	378	488

Note: Queue reported is the distance per lane in feet.

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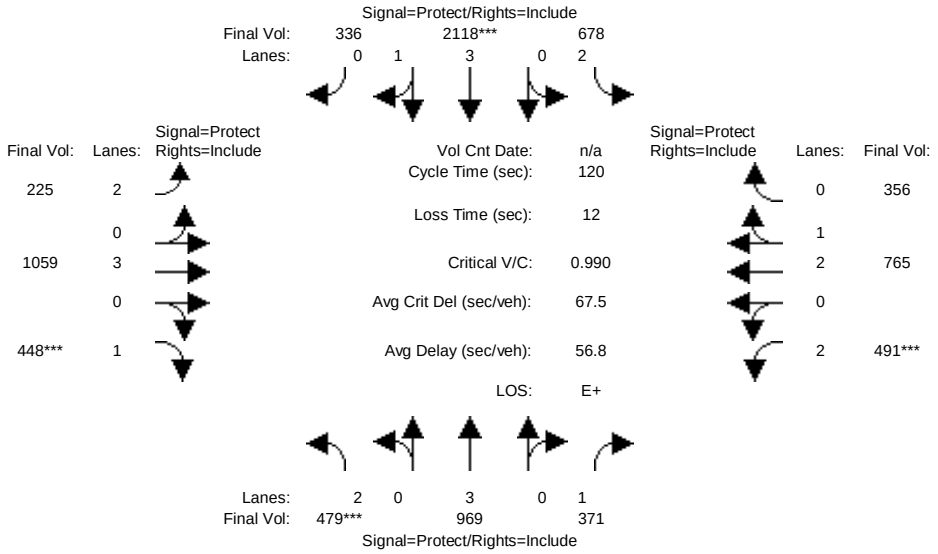
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #11: De Anza Boulevard/Stevens Creek Boulevard



Street Name:	De Anza Boulevard						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	479	969	358	571	2118	336	225	979	448	476	678	240
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	479	969	358	571	2118	336	225	979	448	476	678	240
Added Vol:	0	0	13	107	0	0	0	80	0	15	87	116
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	479	969	371	678	2118	336	225	1059	448	491	765	356
User Adj:	1.00	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:	479	969	371	678	2118	336	225	1059	448	491	765	356
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	479	969	371	678	2118	336	225	1059	448	491	765	356
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	479	969	371	678	2118	336	225	1059	448	491	765	356
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.99	0.95	0.83	1.00	0.92	0.83	1.00	0.95
Lanes:	2.00	3.00	1.00	2.00	3.43	0.57	2.00	3.00	1.00	2.00	2.01	0.99
Final Sat.:	3150	5700	1750	3150	6471	1027	3150	5700	1750	3150	3819	1777
Capacity Analysis Module:												
Vol/Sat:	0.15	0.17	0.21	0.22	0.33	0.33	0.07	0.19	0.26	0.16	0.20	0.20
Crit Moves:	****				****				****	****		
Green Time:	18.4	28.8	28.8	29.3	39.7	39.7	13.1	31.0	31.0	18.9	36.8	36.8
Volume/Cap:	0.99	0.71	0.88	0.88	0.99	0.99	0.65	0.72	0.99	0.99	0.65	0.65
Uniform Del:	50.7	41.7	44.0	43.7	40.0	40.0	51.3	40.5	44.3	50.5	36.1	36.1
IncremntDel:	38.6	3.1	22.6	13.9	15.9	15.9	9.3	3.0	40.0	38.1	2.0	2.0
InitQueuDel:	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:	89.3	44.8	66.5	57.7	55.9	55.9	60.6	43.6	84.3	88.5	38.0	38.0
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:	89.3	44.8	66.5	57.7	55.9	55.9	60.6	43.6	84.3	88.5	38.0	38.0
LOS by Move:	F	D	E	E+	E+	E+	E	D	F	F	D+	D+
HCM2kAvgQ:	386	300	436	441	727	727	148	324	592	394	319	319

Note: Queue reported is the distance per lane in feet.

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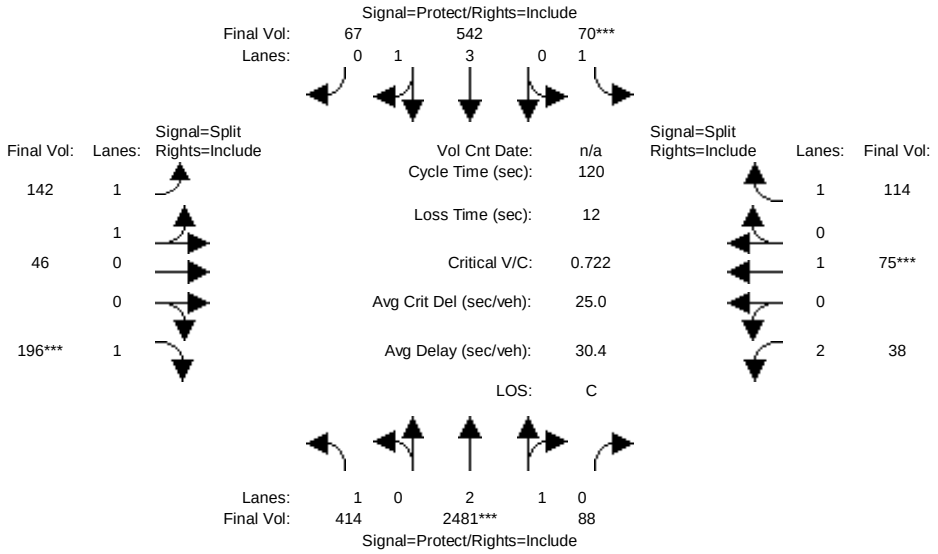
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #12: De Anza Boulevard/McClellan Road



Street Name:	De Anza Boulevard						McClellan Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	414	2477	88	70	540	67	142	46	196	38	75	114
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	414	2477	88	70	540	67	142	46	196	38	75	114
Added Vol:	0	4	0	0	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	414	2481	88	70	542	67	142	46	196	38	75	114
User Adj:	1.00	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:	414	2481	88	70	542	67	142	46	196	38	75	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	414	2481	88	70	542	67	142	46	196	38	75	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	414	2481	88	70	542	67	142	46	196	38	75	114
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.99	0.95	0.93	0.95	0.92	0.83	1.00	0.92
Lanes:	1.00	2.89	0.11	1.00	3.54	0.46	1.52	0.48	1.00	2.00	1.00	1.00
Final Sat.:	1750	5408	192	1750	6674	825	2681	869	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.24	0.46	0.46	0.04	0.08	0.08	0.05	0.05	0.11	0.01	0.04	0.07
Crit Moves:		****		****					****		****	
Green Time:	58.8	72.5	72.5	7.0	20.7	20.7	17.7	17.7	17.7	10.8	10.8	10.8
Volume/Cap:	0.48	0.76	0.76	0.69	0.47	0.47	0.36	0.36	0.76	0.13	0.44	0.72
Uniform Del:	20.5	17.4	17.4	55.4	44.7	44.7	46.0	46.0	49.1	50.3	51.7	53.1
IncremntDel:	1.9	1.7	1.7	31.5	1.2	1.2	1.9	1.9	18.8	1.0	7.9	24.8
InitQueuDel:	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:	22.4	19.0	19.0	86.9	45.9	45.9	48.0	48.0	67.9	51.3	59.6	77.9
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:	22.4	19.0	19.0	86.9	45.9	45.9	48.0	48.0	67.9	51.3	59.6	77.9
LOS by Move:	C+	B-	B-	F	D	D	D	D	E	D-	E+	E-
HCM2kAvgQ:	273	604	604	102	137	137	89	89	231	21	78	149

Note: Queue reported is the distance per lane in feet.

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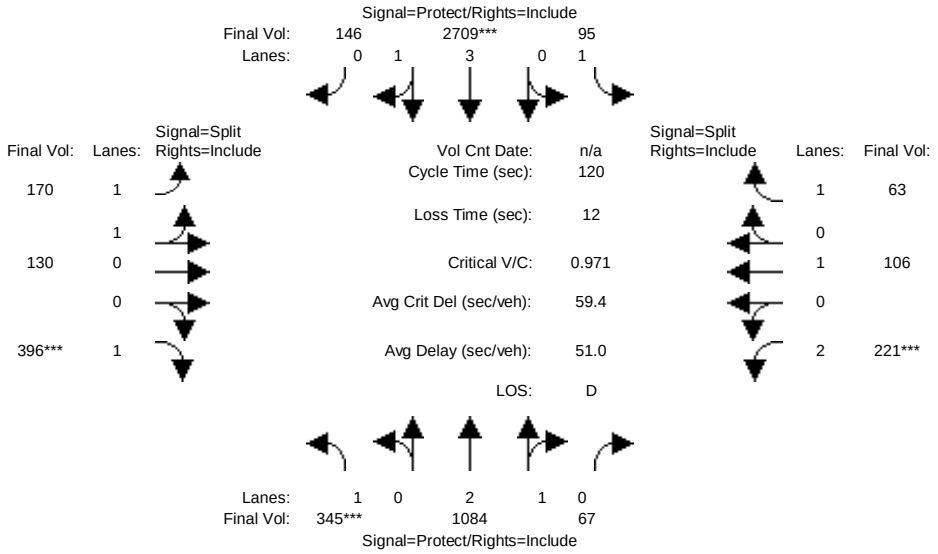
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #12: De Anza Boulevard/McClellan Road



Street Name:	De Anza Boulevard						McClellan Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	345	1071	67	95	2694	146	170	130	396	221	106	63
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	345	1071	67	95	2694	146	170	130	396	221	106	63
Added Vol:	0	13	0	0	15	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	345	1084	67	95	2709	146	170	130	396	221	106	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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:	345	1084	67	95	2709	146	170	130	396	221	106	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	345	1084	67	95	2709	146	170	130	396	221	106	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	345	1084	67	95	2709	146	170	130	396	221	106	63
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.99	0.95	0.92	0.95	0.92	0.83	1.00	0.92
Lanes:	1.00	2.82	0.18	1.00	3.79	0.21	1.15	0.85	1.00	2.00	1.00	1.00
Final Sat.:	1750	5274	326	1750	7116	384	2011	1538	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.20	0.21	0.21	0.05	0.38	0.38	0.08	0.08	0.23	0.07	0.06	0.04
Crit Moves:	****				****				****	****		
Green Time:	24.0	54.9	54.9	15.6	46.4	46.4	27.6	27.6	27.6	10.0	10.0	10.0
Volume/Cap:	0.98	0.45	0.45	0.42	0.98	0.98	0.37	0.37	0.98	0.84	0.67	0.43
Uniform Del:	47.8	22.3	22.3	48.1	36.4	36.4	38.9	38.9	46.0	54.2	53.4	52.3
IncremntDel:	44.4	0.6	0.6	5.6	13.5	13.5	1.3	1.3	41.2	26.6	20.3	9.1
InitQueuDel:	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:	92.2	22.8	22.8	53.6	49.9	49.9	40.2	40.2	87.2	80.8	73.7	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:	92.2	22.8	22.8	53.6	49.9	49.9	40.2	40.2	87.2	80.8	73.7	61.4
LOS by Move:	F	C+	C+	D-	D	D	D	D	F	F	E	E
HCM2kAvgQ:	473	243	243	96	818	818	127	127	530	180	126	72

Note: Queue reported is the distance per lane in feet.

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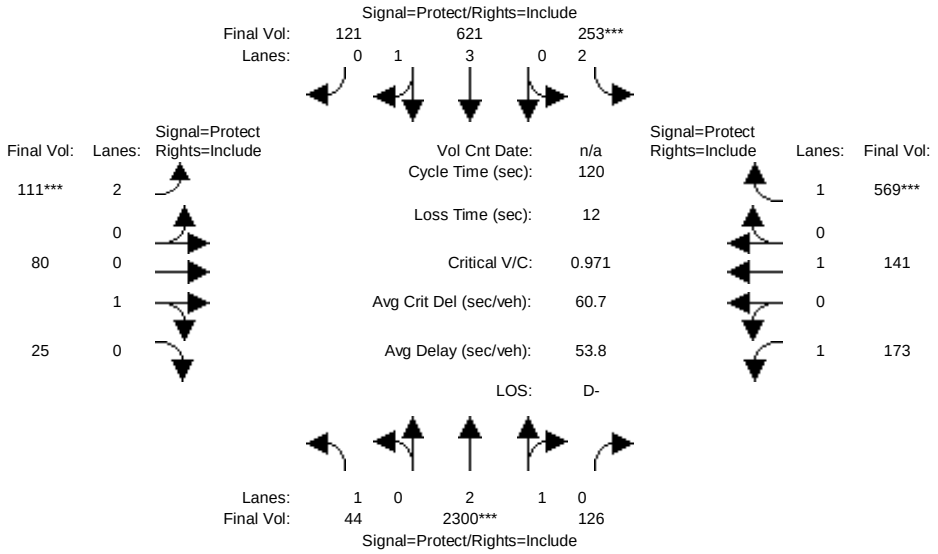
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #13: De Anza Boulevard/Bollinger Road



Street Name:	De Anza Boulevard						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	44	2296	126	253	619	121	111	80	25	173	141	569
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	44	2296	126	253	619	121	111	80	25	173	141	569
Added Vol:	0	4	0	0	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	2300	126	253	621	121	111	80	25	173	141	569
User Adj:	1.00	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:	44	2300	126	253	621	121	111	80	25	173	141	569
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	2300	126	253	621	121	111	80	25	173	141	569
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	44	2300	126	253	621	121	111	80	25	173	141	569
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.83	0.99	0.95	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	2.84	0.16	2.00	3.32	0.68	2.00	0.76	0.24	1.00	1.00	1.00
Final Sat.:	1750	5309	291	3150	6275	1223	3150	1371	429	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.43	0.43	0.08	0.10	0.10	0.04	0.06	0.06	0.10	0.07	0.33
Crit Moves:		****		****			****					****
Green Time:	22.9	52.2	52.2	9.7	38.9	38.9	7.0	21.1	21.1	25.0	39.2	39.2
Volume/Cap:	0.13	1.00	1.00	1.00	0.31	0.31	0.60	0.33	0.33	0.47	0.23	1.00
Uniform Del:	40.3	33.8	33.8	55.1	30.4	30.4	55.1	43.3	43.3	41.7	29.4	40.4
IncremntDel:	0.8	17.4	17.4	55.6	0.3	0.3	13.9	2.8	2.8	4.4	0.9	36.8
InitQueuDel:	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:	41.1	51.3	51.3	110.7	30.7	30.7	69.0	46.1	46.1	46.0	30.3	77.2
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:	41.1	51.3	51.3	110.7	30.7	30.7	69.0	46.1	46.1	46.0	30.3	77.2
LOS by Move:	D	D-	D-	F	C	C	E	D	D	D	C	E-
HCM2kAvgQ:	37	933	933	235	128	128	86	93	93	159	93	730

Note: Queue reported is the distance per lane in feet.

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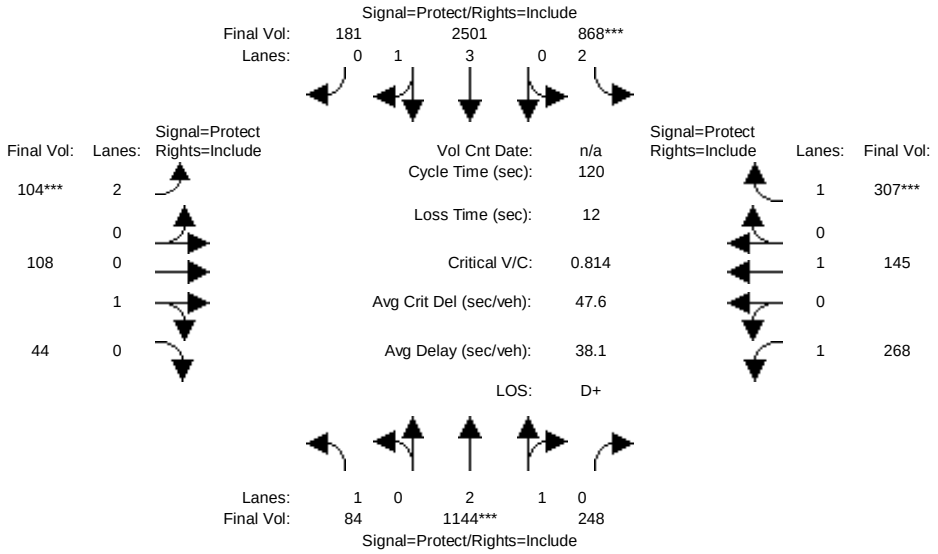
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #13: De Anza Boulevard/Bollinger Road



Street Name:	De Anza Boulevard						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	84	1131	248	868	2486	181	104	108	44	268	145	307
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	84	1131	248	868	2486	181	104	108	44	268	145	307
Added Vol:	0	13	0	0	15	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	84	1144	248	868	2501	181	104	108	44	268	145	307
User Adj:	1.00	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:	84	1144	248	868	2501	181	104	108	44	268	145	307
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	1144	248	868	2501	181	104	108	44	268	145	307
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	84	1144	248	868	2501	181	104	108	44	268	145	307
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	0.99	0.95	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	2.45	0.55	2.00	3.72	0.28	2.00	0.71	0.29	1.00	1.00	1.00
Final Sat.:	1750	4601	997	3150	6993	506	3150	1279	521	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.25	0.25	0.28	0.36	0.36	0.03	0.08	0.08	0.15	0.08	0.18
Crit Moves:		****		****			****					****
Green Time:	10.6	35.9	35.9	39.8	65.1	65.1	7.0	11.5	11.5	20.8	25.3	25.3
Volume/Cap:	0.54	0.83	0.83	0.83	0.66	0.66	0.57	0.88	0.88	0.88	0.36	0.83
Uniform Del:	52.4	39.2	39.2	37.0	19.6	19.6	55.0	53.6	53.6	48.4	40.4	45.3
IncremntDel:	13.0	5.0	5.0	7.7	0.9	0.9	12.0	43.1	43.1	28.7	2.5	19.2
InitQueuDel:	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:	65.4	44.2	44.2	44.7	20.4	20.4	67.1	96.7	96.7	77.1	43.0	64.5
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:	65.4	44.2	44.2	44.7	20.4	20.4	67.1	96.7	96.7	77.1	43.0	64.5
LOS by Move:	E	D	D	D	C+	C+	E	F	F	E-	D	E
HCM2kAvgQ:	99	461	461	498	450	450	78	215	215	338	117	353

Note: Queue reported is the distance per lane in feet.

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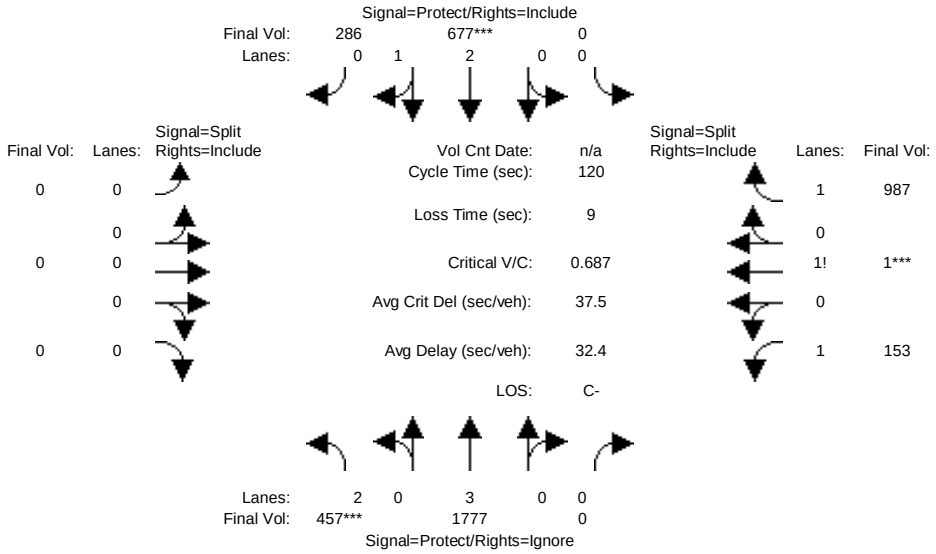
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #14: De Anza Boulevard/SR 85 Ramps North



Street Name:	De Anza Boulevard						SR 85 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	457	1773	0	0	675	286	0	0	0	153	1	987
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	457	1773	0	0	675	286	0	0	0	153	1	987
Added Vol:	0	4	0	0	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	457	1777	0	0	677	286	0	0	0	153	1	987
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	457	1777	0	0	677	286	0	0	0	153	1	987
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	457	1777	0	0	677	286	0	0	0	153	1	987
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	457	1777	0	0	677	286	0	0	0	153	1	987
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.95	0.92	1.00	0.92	0.92	0.95	0.95
Lanes:	2.00	3.00	0.00	0.00	2.08	0.92	0.00	0.00	0.00	1.13	0.01	1.86
Final Sat.:	3150	5700	0	0	3935	1662	0	0	0	1990	3	3350
Capacity Analysis Module:												
Vol/Sat:	0.15	0.31	0.00	0.00	0.17	0.17	0.00	0.00	0.00	0.08	0.32	0.29
Crit Moves:	****				****						****	
Green Time:	25.3	55.4	0.0	0.0	30.0	30.0	0.0	0.0	0.0	55.6	55.6	55.6
Volume/Cap:	0.69	0.68	0.00	0.00	0.69	0.69	0.00	0.00	0.00	0.17	0.69	0.64
Uniform Del:	43.7	25.3	0.0	0.0	40.7	40.7	0.0	0.0	0.0	18.7	25.3	24.5
IncremntDel:	5.7	1.4	0.0	0.0	2.8	2.8	0.0	0.0	0.0	0.1	2.3	1.7
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	49.4	26.7	0.0	0.0	43.5	43.5	0.0	0.0	0.0	18.8	27.7	26.2
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:	49.4	26.7	0.0	0.0	43.5	43.5	0.0	0.0	0.0	18.8	27.7	26.2
LOS by Move:	D	C	A	A	D	D	A	A	A	B-	C	C
HCM2kAvgQ:	237	428	0	0	296	296	0	0	0	76	449	397

Note: Queue reported is the distance per lane in feet.

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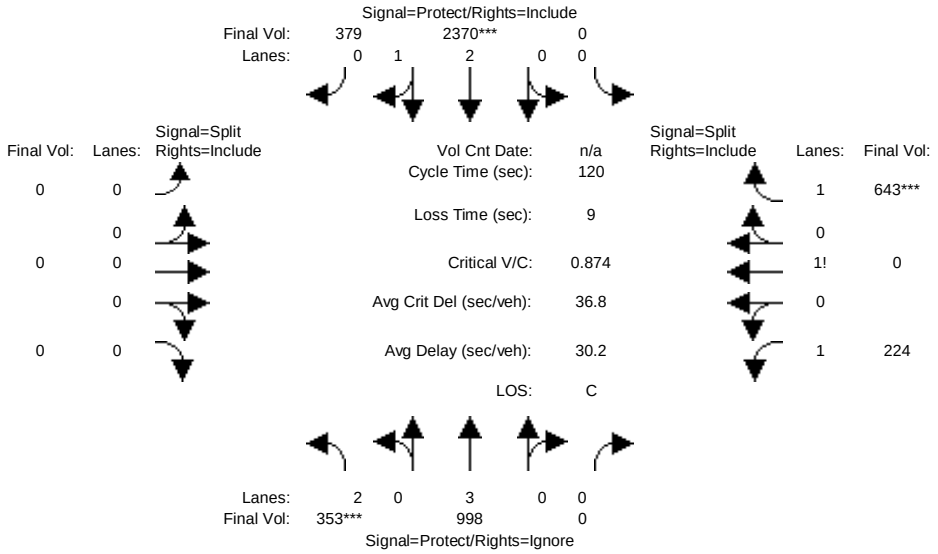
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #14: De Anza Boulevard/SR 85 Ramps North



Street Name:	De Anza Boulevard						SR 85 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	353	985	0	0	2355	379	0	0	0	224	0	643
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	353	985	0	0	2355	379	0	0	0	224	0	643
Added Vol:	0	13	0	0	15	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	353	998	0	0	2370	379	0	0	0	224	0	643
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	353	998	0	0	2370	379	0	0	0	224	0	643
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	353	998	0	0	2370	379	0	0	0	224	0	643
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	353	998	0	0	2370	379	0	0	0	224	0	643
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.95
Lanes:	2.00	3.00	0.00	0.00	2.57	0.43	0.00	0.00	0.00	1.26	0.00	1.74
Final Sat.:	3150	5700	0	0	4827	772	0	0	0	2212	0	3125
Capacity Analysis Module:												
Vol/Sat:	0.11	0.18	0.00	0.00	0.49	0.49	0.00	0.00	0.00	0.10	0.00	0.21
Crit Moves:	****				****							****
Green Time:	15.4	82.8	0.0	0.0	67.4	67.4	0.0	0.0	0.0	28.2	0.0	28.2
Volume/Cap:	0.87	0.25	0.00	0.00	0.87	0.87	0.00	0.00	0.00	0.43	0.00	0.87
Uniform Del:	51.4	7.0	0.0	0.0	22.7	22.7	0.0	0.0	0.0	39.0	0.0	44.2
IncremntDel:	22.3	0.2	0.0	0.0	3.7	3.7	0.0	0.0	0.0	0.7	0.0	10.6
InitQueuDel:	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	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	73.6	7.2	0.0	0.0	26.4	26.4	0.0	0.0	0.0	39.7	0.0	54.8
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:	73.6	7.2	0.0	0.0	26.4	26.4	0.0	0.0	0.0	39.7	0.0	54.8
LOS by Move:	E	A	A	A	C	C	A	A	A	D	A	D-
HCM2kAvgQ:	213	113	0	0	802	802	0	0	0	155	0	421

Note: Queue reported is the distance per lane in feet.

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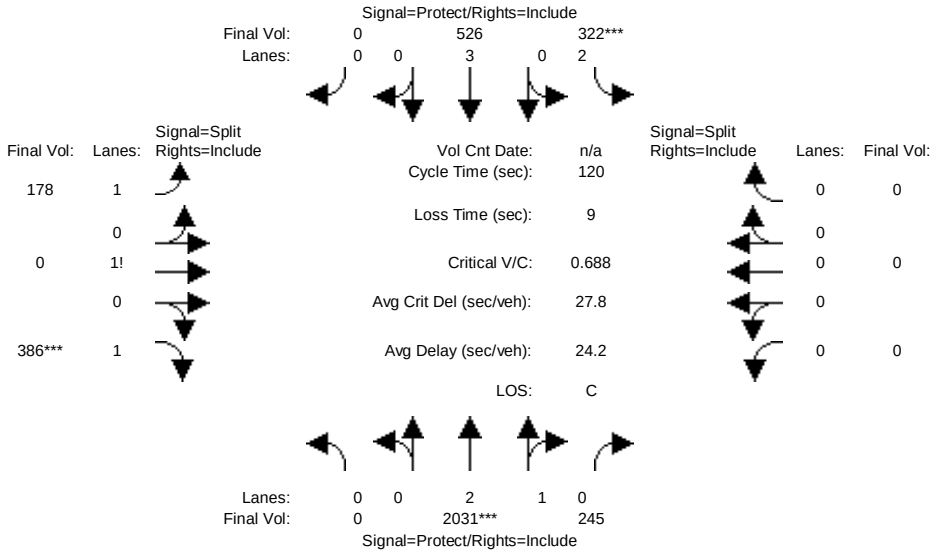
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #15: De Anza Boulevard/SR 85 Ramps South



Street Name:	De Anza Boulevard						SR 85 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	2027	245	322	524	0	178	0	386	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2027	245	322	524	0	178	0	386	0	0	0
Added Vol:	0	4	0	0	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2031	245	322	526	0	178	0	386	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	2031	245	322	526	0	178	0	386	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2031	245	322	526	0	178	0	386	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	2031	245	322	526	0	178	0	386	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.92	1.00	0.95	0.92	1.00	0.92
Lanes:	0.00	2.67	0.33	2.00	3.00	0.00	1.32	0.00	1.68	0.00	0.00	0.00
Final Sat.:	0	4996	603	3150	5700	0	2313	0	3021	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.41	0.41	0.10	0.09	0.00	0.08	0.00	0.13	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green Time:	0.0	70.9	70.9	17.8	88.7	0.0	22.3	0.0	22.3	0.0	0.0	0.0
Volume/Cap:	0.00	0.69	0.69	0.69	0.12	0.00	0.41	0.00	0.69	0.00	0.00	0.00
Uniform Del:	0.0	16.9	16.9	48.4	4.5	0.0	43.1	0.0	45.6	0.0	0.0	0.0
IncremntDel:	0.0	1.2	1.2	8.0	0.1	0.0	0.9	0.0	4.7	0.0	0.0	0.0
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	18.1	18.1	56.5	4.6	0.0	44.0	0.0	50.3	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:	0.0	18.1	18.1	56.5	4.6	0.0	44.0	0.0	50.3	0.0	0.0	0.0
LOS by Move:	A	B-	B-	E+	A	A	D	A	D	A	A	A
HCM2kAvgQ:	0	496	496	173	46	0	125	0	237	0	0	0

Note: Queue reported is the distance per lane in feet.

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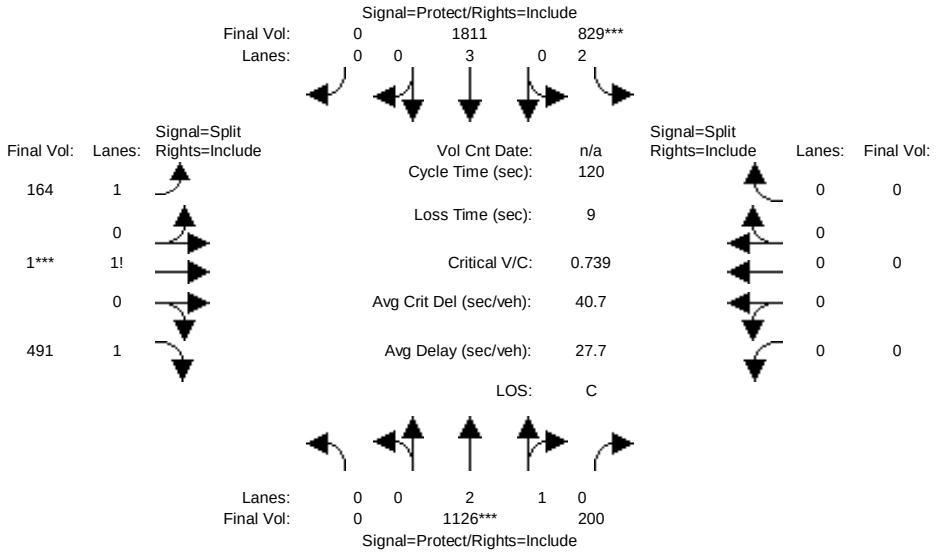
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #15: De Anza Boulevard/SR 85 Ramps South



Street Name:	De Anza Boulevard						SR 85 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1113	200	829	1796	0	164	1	491	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1113	200	829	1796	0	164	1	491	0	0	0
Added Vol:	0	13	0	0	15	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1126	200	829	1811	0	164	1	491	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	1126	200	829	1811	0	164	1	491	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1126	200	829	1811	0	164	1	491	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	1126	200	829	1811	0	164	1	491	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	0.00	2.53	0.47	2.00	3.00	0.00	1.25	0.01	1.74	0.00	0.00	0.00
Final Sat.:	0	4754	844	3150	5700	0	2196	5	3136	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.24	0.24	0.26	0.32	0.00	0.07	0.18	0.16	0.00	0.00	0.00
Crit Moves:		****		****				****				
Green Time:	0.0	38.4	38.4	42.7	81.2	0.0	29.8	29.8	29.8	0.0	0.0	0.0
Volume/Cap:	0.00	0.74	0.74	0.74	0.47	0.00	0.30	0.74	0.63	0.00	0.00	0.00
Uniform Del:	0.0	36.3	36.3	33.8	9.2	0.0	36.6	41.5	40.2	0.0	0.0	0.0
IncremntDel:	0.0	2.8	2.8	4.4	0.4	0.0	0.4	5.5	2.9	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	39.1	39.1	38.2	9.6	0.0	37.0	47.0	43.1	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	39.1	39.1	38.2	9.6	0.0	37.0	47.0	43.1	0.0	0.0	0.0
LOS by Move:	A	D	D	D+	A	A	D+	D	D	A	A	A
HCM2kAvgQ:	0	397	397	390	252	0	107	329	261	0	0	0

Note: Queue reported is the distance per lane in feet.

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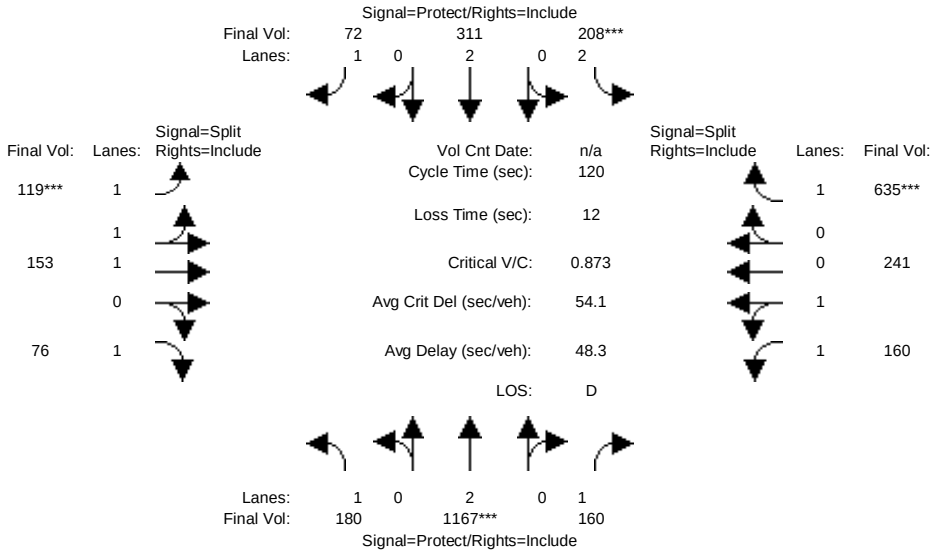
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #16: Saratoga Sunnyvale Road/Prospect Road



Street Name:	Saratoga Sunnyvale Road						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	180	1163	160	208	309	72	119	149	76	160	239	635
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	180	1163	160	208	309	72	119	149	76	160	239	635
Added Vol:	0	4	0	0	2	0	0	4	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	180	1167	160	208	311	72	119	153	76	160	241	635
User Adj:	1.00	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:	180	1167	160	208	311	72	119	153	76	160	241	635
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	180	1167	160	208	311	72	119	153	76	160	241	635
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	180	1167	160	208	311	72	119	153	76	160	241	635
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.93	0.98	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.35	1.65	1.00	1.00	1.00	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	2383	3063	1750	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.31	0.09	0.07	0.08	0.04	0.05	0.05	0.04	0.09	0.13	0.36
Crit Moves:		****		****			****					****
Green Time:	27.4	40.9	40.9	8.8	22.2	22.2	10.0	10.0	10.0	48.3	48.3	48.3
Volume/Cap:	0.45	0.90	0.27	0.90	0.44	0.22	0.60	0.60	0.52	0.23	0.32	0.90
Uniform Del:	39.8	37.6	28.7	55.2	43.4	41.5	53.1	53.1	52.7	23.6	24.5	33.6
IncremntDel:	3.6	10.3	1.1	38.2	2.0	1.6	5.7	5.7	12.7	0.3	0.6	16.9
InitQueuDel:	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:	43.4	47.9	29.8	93.4	45.4	43.1	58.8	58.8	65.4	23.9	25.2	50.5
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:	43.4	47.9	29.8	93.4	45.4	43.1	58.8	58.8	65.4	23.9	25.2	50.5
LOS by Move:	D	D	C	F	D	D	E+	E+	E	C	C	D
HCM2kAvgQ:	160	598	114	184	134	62	108	108	91	102	149	681

Note: Queue reported is the distance per lane in feet.

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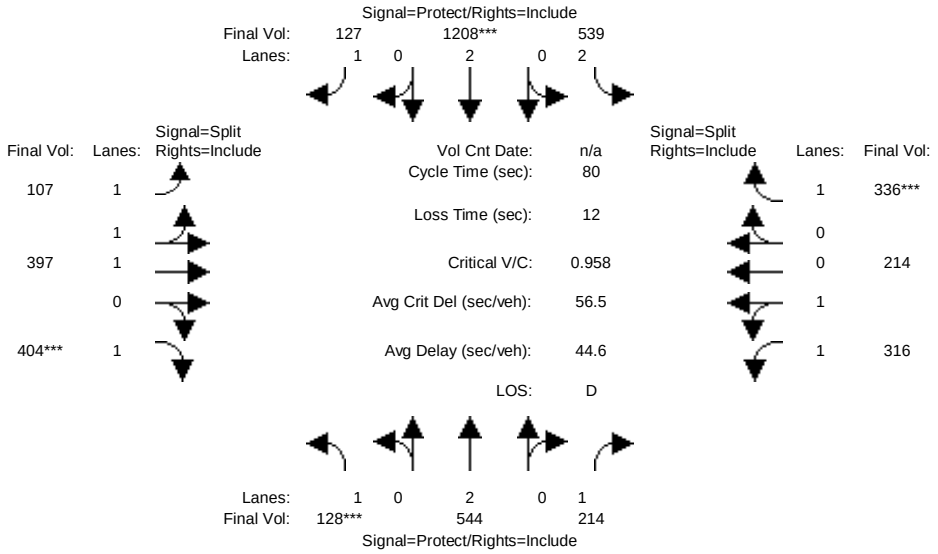
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #16: Saratoga Sunnyvale Road/Prospect Road



Street Name:	Saratoga Sunnyvale Road						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	128	531	214	539	1193	127	107	384	404	316	199	336
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	128	531	214	539	1193	127	107	384	404	316	199	336
Added Vol:	0	13	0	0	15	0	0	13	0	0	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	128	544	214	539	1208	127	107	397	404	316	214	336
User Adj:	1.00	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:	128	544	214	539	1208	127	107	397	404	316	214	336
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	128	544	214	539	1208	127	107	397	404	316	214	336
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	128	544	214	539	1208	127	107	397	404	316	214	336
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00	1.20	0.80	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	1750	3800	1750	2116	1433	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.14	0.12	0.17	0.32	0.07	0.06	0.10	0.23	0.15	0.15	0.19
Crit Moves:	****				****				****			****
Green Time:	7.0	15.1	15.1	18.1	26.2	26.2	19.0	19.0	19.0	15.8	15.8	15.8
Volume/Cap:	0.84	0.76	0.65	0.76	0.97	0.22	0.26	0.44	0.97	0.76	0.76	0.97
Uniform Del:	35.9	30.7	30.0	28.9	26.5	19.5	24.8	26.0	30.2	30.3	30.3	31.9
IncremntDel:	39.1	7.3	9.4	7.4	19.5	0.9	0.3	1.2	37.6	7.4	7.4	41.7
InitQueuDel:	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:	75.1	38.1	39.4	36.3	46.1	20.4	25.1	27.2	67.8	37.7	37.7	73.6
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:	75.1	38.1	39.4	36.3	46.1	20.4	25.1	27.2	67.8	37.7	37.7	73.6
LOS by Move:	E-	D+	D	D+	D	C+	C	C	E	D+	D+	E
HCM2kAvgQ:	146	206	161	234	522	63	61	113	408	212	212	354

Note: Queue reported is the distance per lane in feet.

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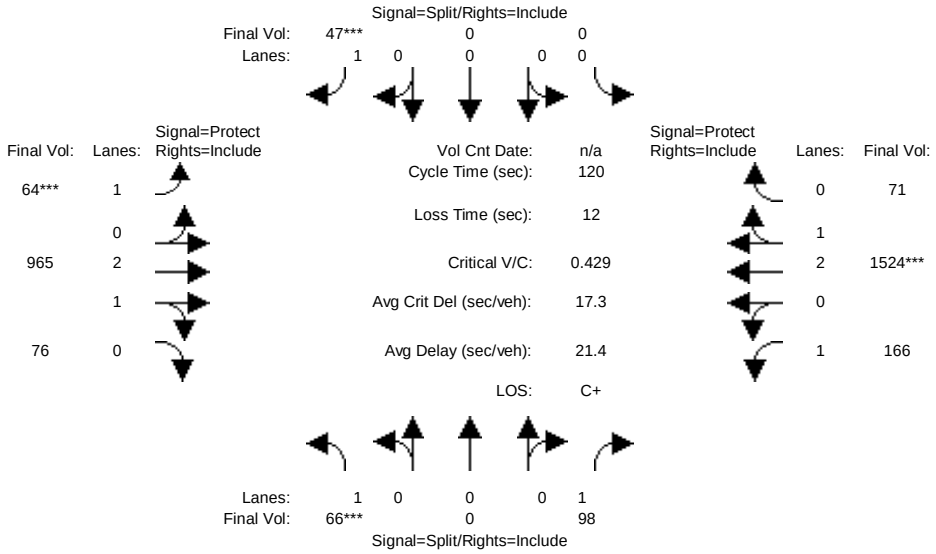
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #17: Stevens Creek Boulevard/Torre Avenue



Street Name:	Torre Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	66	0	98	0	0	47	64	904	76	166	1487	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	66	0	98	0	0	47	64	904	76	166	1487	71
Added Vol:	0	0	0	0	0	0	0	61	0	0	37	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	66	0	98	0	0	47	64	965	76	166	1524	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:	66	0	98	0	0	47	64	965	76	166	1524	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	0	98	0	0	47	64	965	76	166	1524	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:	66	0	98	0	0	47	64	965	76	166	1524	71
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.99	0.95	0.92	0.98	0.95
Lanes:	1.00	0.00	1.00	0.00	0.00	1.00	1.00	2.77	0.23	1.00	2.86	0.14
Final Sat.:	1750	0	1750	0	0	1750	1750	5191	409	1750	5350	249
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.06	0.00	0.00	0.03	0.04	0.19	0.19	0.09	0.28	0.28
Crit Moves:	****					****	****				****	
Green Time:	14.5	0.0	14.5	0.0	0.0	10.0	9.5	55.3	55.3	28.2	74.0	74.0
Volume/Cap:	0.31	0.00	0.46	0.00	0.00	0.32	0.46	0.40	0.40	0.40	0.46	0.46
Uniform Del:	48.2	0.0	49.1	0.0	0.0	51.8	52.8	21.5	21.5	38.8	12.3	12.3
IncremntDel:	3.8	0.0	7.1	0.0	0.0	5.8	10.7	0.5	0.5	2.9	0.4	0.4
InitQueuDel:	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	51.9	0.0	56.2	0.0	0.0	57.6	63.5	21.9	21.9	41.7	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:	51.9	0.0	56.2	0.0	0.0	57.6	63.5	21.9	21.9	41.7	12.8	12.8
LOS by Move:	D-	A	E+	A	A	E+	E	C+	C+	D	B	B
HCM2kAvgQ:	66	0	103	0	0	52	75	212	212	144	263	263

Note: Queue reported is the distance per lane in feet.

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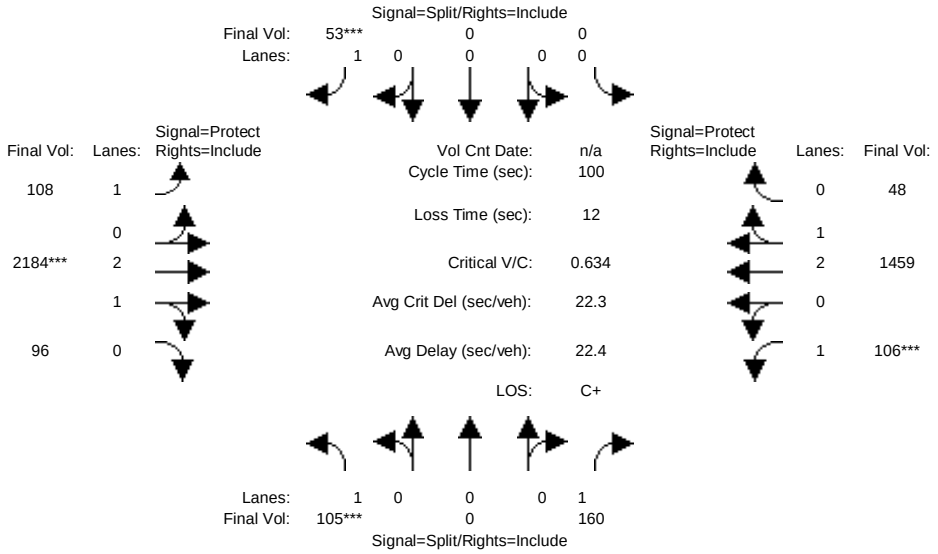
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #17: Stevens Creek Boulevard/Torre Avenue



Street Name:	Torre Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	105	0	160	0	0	53	108	1976	96	106	1234	48
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	105	0	160	0	0	53	108	1976	96	106	1234	48
Added Vol:	0	0	0	0	0	0	0	208	0	0	225	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	105	0	160	0	0	53	108	2184	96	106	1459	48
User Adj:	1.00	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:	105	0	160	0	0	53	108	2184	96	106	1459	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	105	0	160	0	0	53	108	2184	96	106	1459	48
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	105	0	160	0	0	53	108	2184	96	106	1459	48
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	0.00	1.00	0.00	0.00	1.00	1.00	2.87	0.13	1.00	2.90	0.10
Final Sat.:	1750	0	1750	0	0	1750	1750	5364	236	1750	5421	178
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.09	0.00	0.00	0.03	0.06	0.41	0.41	0.06	0.27	0.27
Crit Moves:	****					****		****			****	
Green Time:	14.4	0.0	14.4	0.0	0.0	10.0	13.1	55.3	55.3	8.2	50.5	50.5
Volume/Cap:	0.42	0.00	0.63	0.00	0.00	0.30	0.47	0.74	0.74	0.74	0.53	0.53
Uniform Del:	39.0	0.0	40.3	0.0	0.0	41.8	40.2	16.8	16.8	44.8	16.8	16.8
IncremntDel:	5.0	0.0	11.6	0.0	0.0	4.4	6.8	1.6	1.6	28.1	0.7	0.7
InitQueuDel:	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	43.9	0.0	51.9	0.0	0.0	46.2	47.0	18.4	18.4	72.9	17.5	17.5
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:	43.9	0.0	51.9	0.0	0.0	46.2	47.0	18.4	18.4	72.9	17.5	17.5
LOS by Move:	D	A	D-	A	A	D	D	B-	B-	E	B	B
HCM2kAvgQ:	89	0	152	0	0	48	97	469	469	128	269	269

Note: Queue reported is the distance per lane in feet.

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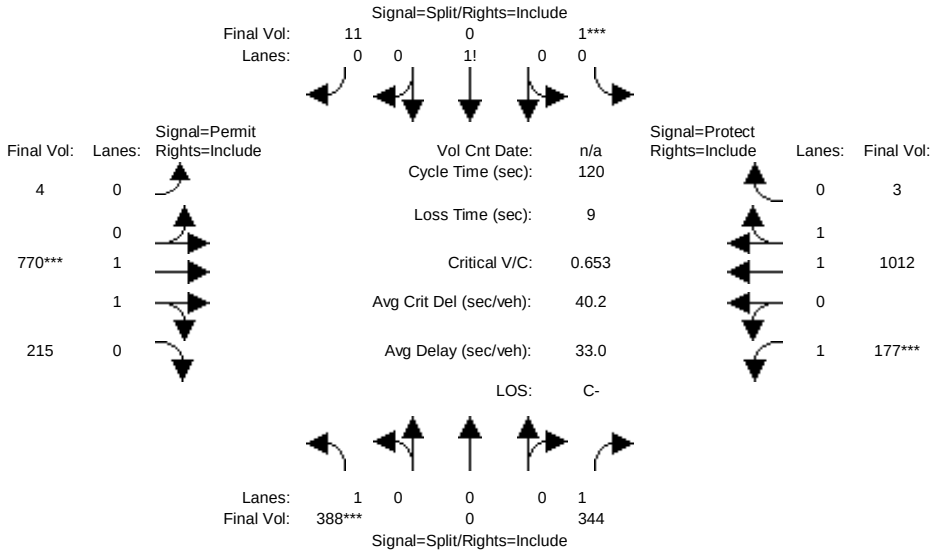
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #18: Homestead Road/Blaney Avenue



Street Name:	Homestead Road						Blaney Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	382	0	340	1	0	11	4	770	205	171	1012	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	382	0	340	1	0	11	4	770	205	171	1012	3
Added Vol:	6	0	4	0	0	0	0	0	10	6	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	388	0	344	1	0	11	4	770	215	177	1012	3
User Adj:	1.00	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:	388	0	344	1	0	11	4	770	215	177	1012	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	388	0	344	1	0	11	4	770	215	177	1012	3
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	388	0	344	1	0	11	4	770	215	177	1012	3
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.97	0.95
Lanes:	1.00	0.00	1.00	0.08	0.00	0.92	0.01	1.56	0.43	1.00	1.99	0.01
Final Sat.:	1750	0	1750	146	0	1604	15	2803	783	1750	3689	11
Capacity Analysis Module:												
Vol/Sat:	0.22	0.00	0.20	0.01	0.00	0.01	0.27	0.27	0.27	0.10	0.27	0.27
Crit Moves:	****			****				****		****		
Green Time:	37.5	0.0	37.5	10.0	0.0	10.0	46.4	46.4	46.4	17.1	63.5	63.5
Volume/Cap:	0.71	0.00	0.63	0.08	0.00	0.08	0.71	0.71	0.71	0.71	0.52	0.52
Uniform Del:	36.5	0.0	35.3	50.8	0.0	50.8	31.1	31.1	31.1	49.1	18.3	18.3
IncremntDel:	7.6	0.0	5.4	1.1	0.0	1.1	3.1	3.1	3.1	15.8	1.0	1.0
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	44.1	0.0	40.7	51.9	0.0	51.9	34.2	34.2	34.2	64.9	19.3	19.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.1	0.0	40.7	51.9	0.0	51.9	34.2	34.2	34.2	64.9	19.3	19.3
LOS by Move:	D	A	D	D-	A	D-	C-	C-	C-	E	B-	B-
HCM2kAvgQ:	366	0	307	12	0	12	424	424	424	204	308	308

Note: Queue reported is the distance per lane in feet.

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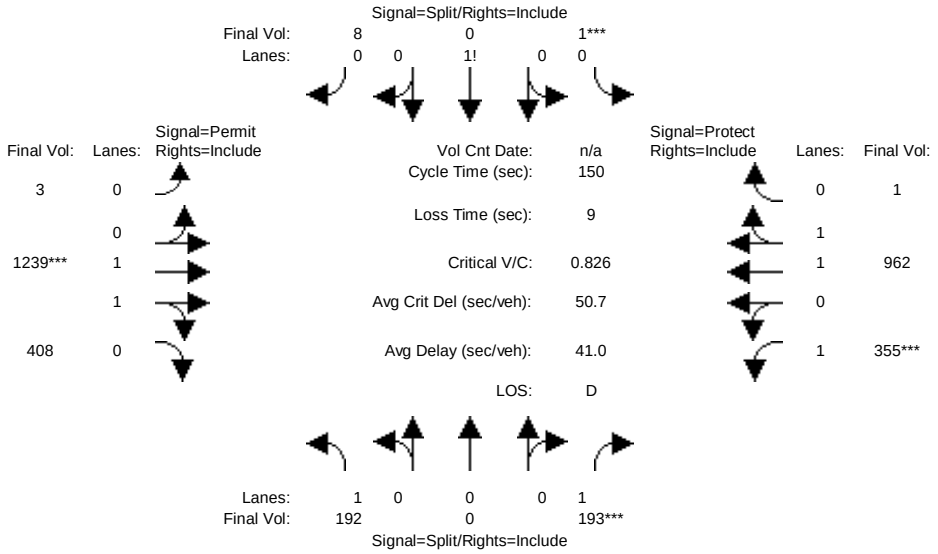
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #18: Homestead Road/Blaney Avenue



Street Name:	Homestead Road						Blaney Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	0	10	10	10	10	10	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	156	0	171	1	0	8	3	1239	374	335	962	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	156	0	171	1	0	8	3	1239	374	335	962	1
Added Vol:	36	0	22	0	0	0	0	0	34	20	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	192	0	193	1	0	8	3	1239	408	355	962	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	192	0	193	1	0	8	3	1239	408	355	962	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	192	0	193	1	0	8	3	1239	408	355	962	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	192	0	193	1	0	8	3	1239	408	355	962	1
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.97	0.95
Lanes:	1.00	0.00	1.00	0.11	0.00	0.89	0.01	1.50	0.49	1.00	1.99	0.01
Final Sat.:	1750	0	1750	194	0	1556	7	2703	890	1750	3696	4
Capacity Analysis Module:												
Vol/Sat:	0.11	0.00	0.11	0.01	0.00	0.01	0.46	0.46	0.46	0.20	0.26	0.26
Crit Moves:			****	****				****		****		
Green Time:	18.7	0.0	18.7	10.0	0.0	10.0	77.8	77.8	77.8	34.4	112	112.3
Volume/Cap:	0.88	0.00	0.88	0.08	0.00	0.08	0.88	0.88	0.88	0.88	0.35	0.35
Uniform Del:	64.5	0.0	64.6	65.7	0.0	65.7	32.1	32.1	32.1	55.8	6.4	6.4
IncremntDel:	36.0	0.0	36.7	1.3	0.0	1.3	6.5	6.5	6.5	23.4	0.3	0.3
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	100.5	0.0	101.3	67.0	0.0	67.0	38.6	38.6	38.6	79.3	6.8	6.8
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:	100.5	0.0	101.3	67.0	0.0	67.0	38.6	38.6	38.6	79.3	6.8	6.8
LOS by Move:	F	A	F	E	A	E	D+	D+	D+	E-	A	A
HCM2kAvgQ:	304	0	307	12	0	12	943	943	943	499	188	188

Note: Queue reported is the distance per lane in feet.

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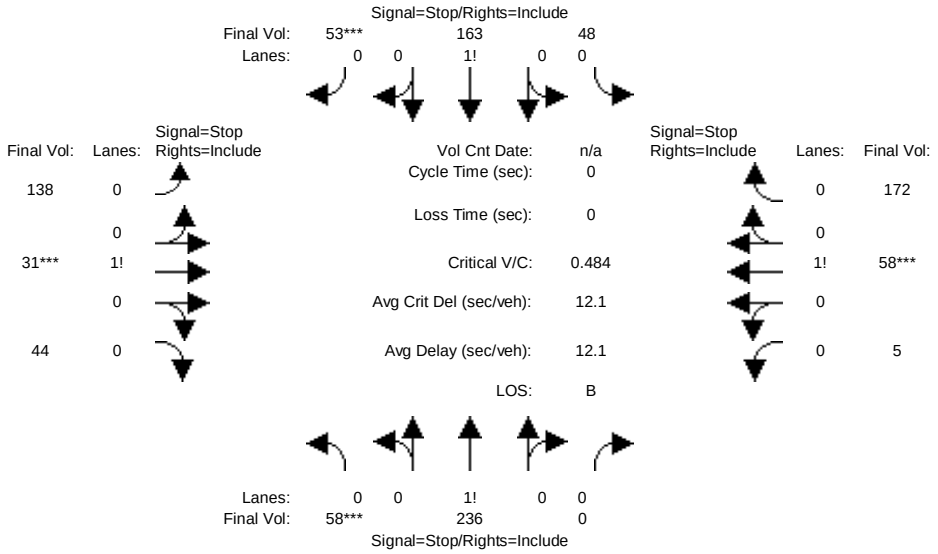
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #19: Blaney Avenue/Merritt Drive



Street Name:	Blaney Avenue						Merritt Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	58	226	0	48	147	53	138	31	44	5	58	172
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	58	226	0	48	147	53	138	31	44	5	58	172
Added Vol:	0	10	0	0	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	58	236	0	48	163	53	138	31	44	5	58	172
User Adj:	1.00	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:	58	236	0	48	163	53	138	31	44	5	58	172
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	236	0	48	163	53	138	31	44	5	58	172
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	58	236	0	48	163	53	138	31	44	5	58	172
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.20	0.80	0.00	0.18	0.62	0.20	0.65	0.14	0.21	0.02	0.25	0.73
Final Sat.:	120	488	0	111	377	122	369	83	118	13	152	451
Capacity Analysis Module:												
Vol/Sat:	0.48	0.48	xxxx	0.43	0.43	0.43	0.37	0.37	0.37	0.38	0.38	0.38
Crit Moves:	****					****		****			****	
Delay/Veh:	13.1	13.1	0.0	12.2	12.2	12.2	11.7	11.7	11.7	11.1	11.1	11.1
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
AdjDel/Veh:	13.1	13.1	0.0	12.2	12.2	12.2	11.7	11.7	11.7	11.1	11.1	11.1
LOS by Move:	B	B	*	B	B	B	B	B	B	B	B	B
ApproachDel:	13.1			12.2			11.7			11.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	13.1			12.2			11.7			11.1		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	19.3	19.3	19.3	15.6	15.6	15.6	11.8	11.8	11.8	12.0	12.0	12.0

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #19 Blaney Avenue/Merritt Drive

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 1	0	0 0	0	0 1!	0 0	0 0	1!	0 0	0 0	1!	0 0
Initial Vol:	58	236	0	48	163	53	138	31	44	5	58	172

Major Street Volume: 558
Minor Approach Volume: 235
Minor Approach Volume Threshold: 375

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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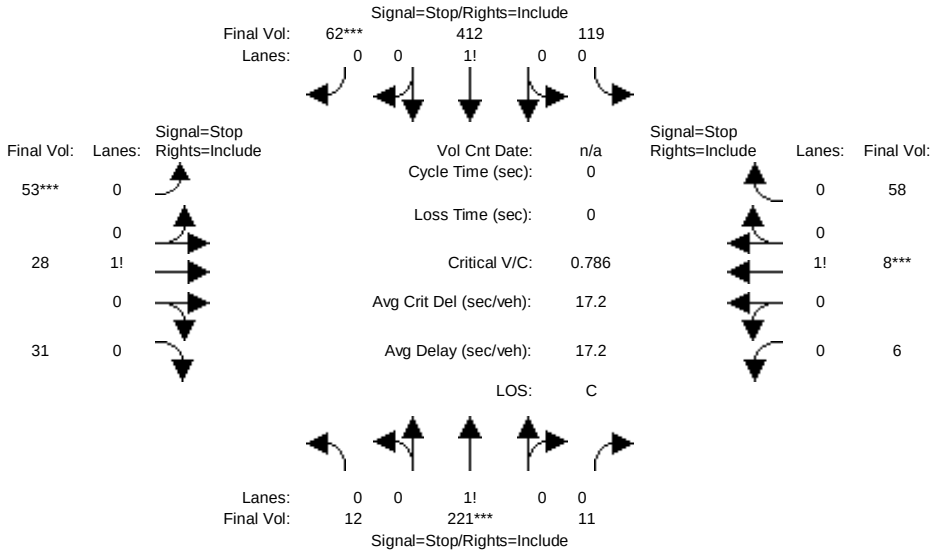
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #19: Blaney Avenue/Merritt Drive



Street Name:	Blaney Avenue						Merritt Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	12	163	11	119	358	62	53	28	31	6	8	58
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	163	11	119	358	62	53	28	31	6	8	58
Added Vol:	0	58	0	0	54	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	221	11	119	412	62	53	28	31	6	8	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:	12	221	11	119	412	62	53	28	31	6	8	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	221	11	119	412	62	53	28	31	6	8	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:	12	221	11	119	412	62	53	28	31	6	8	58
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.05	0.91	0.04	0.20	0.70	0.10	0.47	0.25	0.28	0.08	0.11	0.81
Final Sat.:	33	611	30	151	524	79	264	139	154	48	64	464
Capacity Analysis Module:												
Vol/Sat:	0.36	0.36	0.36	0.79	0.79	0.79	0.20	0.20	0.20	0.13	0.13	0.13
Crit Moves:		****				****	****				****	
Delay/Veh:	10.8	10.8	10.8	22.1	22.1	22.1	10.2	10.2	10.2	9.2	9.2	9.2
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
AdjDel/Veh:	10.8	10.8	10.8	22.1	22.1	22.1	10.2	10.2	10.2	9.2	9.2	9.2
LOS by Move:	B	B	B	C	C	C	B	B	B	A	A	A
ApproachDel:		10.8			22.1			10.2			9.2	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.8			22.1			10.2			9.2	
LOS by Appr:		B			C			B			A	
AllWayAvgQ:	12.5	12.5	12.5	75.2	75.2	75.2	5.0	5.0	5.0	2.8	2.8	2.8

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #19 Blaney Avenue/Merritt Drive

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0
Initial Vol:	12	221	11	119	412	62	53	28	31	6	8	58

Major Street Volume: 837
Minor Approach Volume: 112
Minor Approach Volume Threshold: 267

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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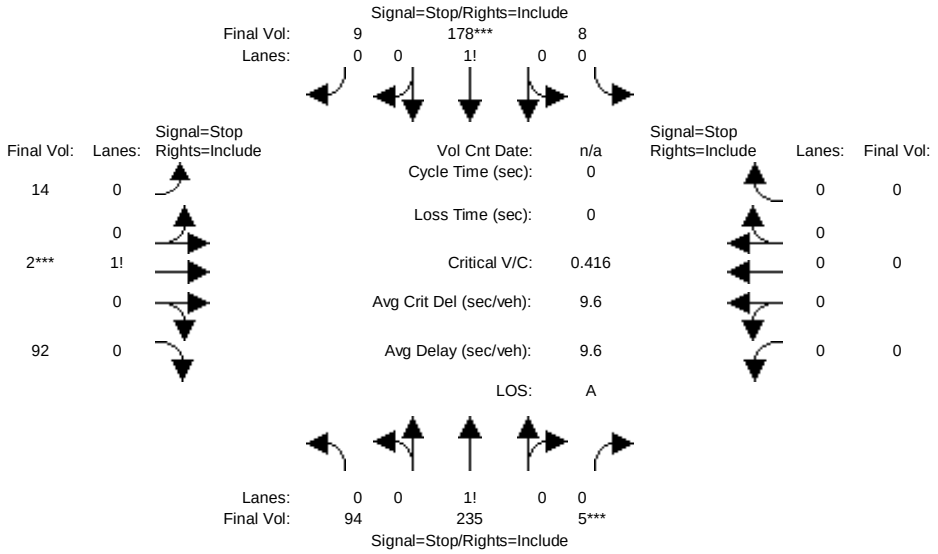
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #20: Blaney Avenue/Forest Avenue



Street Name:	Blaney Avenue						Forest Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	94	225	5	8	162	9	14	2	92	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	94	225	5	8	162	9	14	2	92	0	0	0
Added Vol:	0	10	0	0	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	94	235	5	8	178	9	14	2	92	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:	94	235	5	8	178	9	14	2	92	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	94	235	5	8	178	9	14	2	92	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:	94	235	5	8	178	9	14	2	92	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.28	0.71	0.01	0.04	0.91	0.05	0.13	0.02	0.85	0.00	0.00	0.00
Final Sat.:	226	565	12	32	714	36	95	14	623	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.42	0.42	0.42	0.25	0.25	0.25	0.15	0.15	0.15	xxxx	xxxx	xxxx
Crit Moves:			****		****			****				
Delay/Veh:	10.4	10.4	10.4	8.9	8.9	8.9	8.2	8.2	8.2	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
AdjDel/Veh:	10.4	10.4	10.4	8.9	8.9	8.9	8.2	8.2	8.2	0.0	0.0	0.0
LOS by Move:	B	B	B	A	A	A	A	A	A	*	*	*
ApproachDel:	10.4			8.9			8.2			xxxxxx		
Delay Adj:	1.00			1.00			1.00			xxxxx		
ApprAdjDel:	10.4			8.9			8.2			xxxxxx		
LOS by Appr:	B			A			A			*		
AllWayAvgQ:	16.7	16.7	16.7	7.7	7.7	7.7	3.6	3.6	3.6	0.0	0.0	0.0

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #20 Blaney Avenue/Forest Avenue

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1!	0		0 0 1!	0		0 0 1!	0		0 0 0	0	0
Initial Vol:	94	235	5	8	178	9	14	2	92	0	0	0

Major Street Volume: 529
Minor Approach Volume: 108
Minor Approach Volume Threshold: 389

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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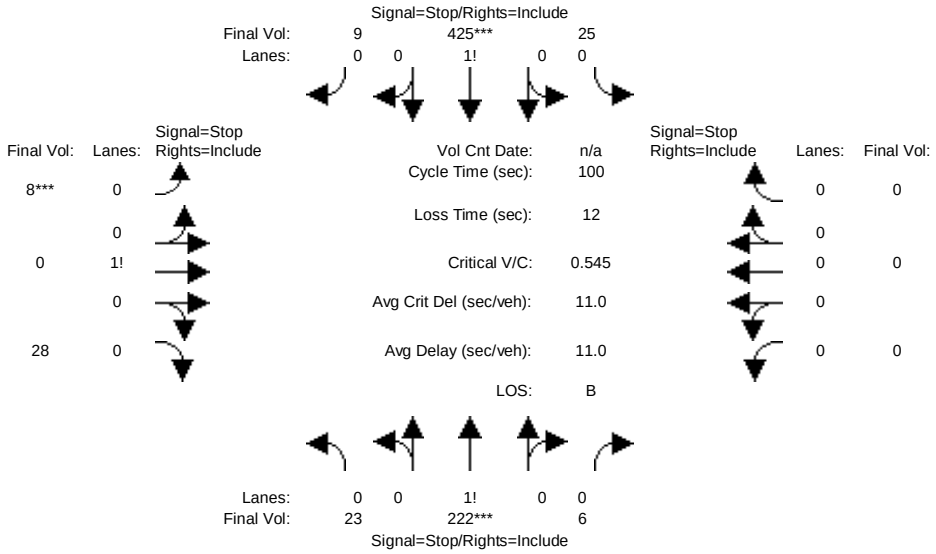
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #20: Blaney Avenue/Forest Avenue



Street Name:	Blaney Avenue						Forest Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	23	164	6	25	371	9	8	0	28	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	23	164	6	25	371	9	8	0	28	0	0	0
Added Vol:	0	58	0	0	54	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	23	222	6	25	425	9	8	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:	23	222	6	25	425	9	8	0	28	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	222	6	25	425	9	8	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
FinalVolume:	23	222	6	25	425	9	8	0	28	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.09	0.89	0.02	0.05	0.93	0.02	0.22	0.00	0.78	0.00	0.00	0.00
Final Sat.:	73	705	19	46	779	17	146	0	511	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.31	0.31	0.31	0.55	0.55	0.55	0.05	xxxx	0.05	xxxx	xxxx	xxxx
Crit Moves:		****			****		****					
Delay/Veh:	9.4	9.4	9.4	12.1	12.1	12.1	8.1	0.0	8.1	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
AdjDel/Veh:	9.4	9.4	9.4	12.1	12.1	12.1	8.1	0.0	8.1	0.0	0.0	0.0
LOS by Move:	A	A	A	B	B	B	A	*	A	*	*	*
ApproachDel:		9.4			12.1			8.1			xxxxxx	
Delay Adj:		1.00			1.00			1.00			xxxxx	
ApprAdjDel:		9.4			12.1			8.1			xxxxxx	
LOS by Appr:		A			B			A			*	
AllWayAvgQ:	10.9	10.9	10.9	28.5	28.5	28.5	1.1	1.1	1.1	0.0	0.0	0.0

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #20 Blaney Avenue/Forest Avenue

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0	0 0 0	0	0
Initial Vol:	23	222	6	25	425	9	8	0	28	0	0	0

Major Street Volume: 710
Minor Approach Volume: 36
Minor Approach Volume Threshold: 311

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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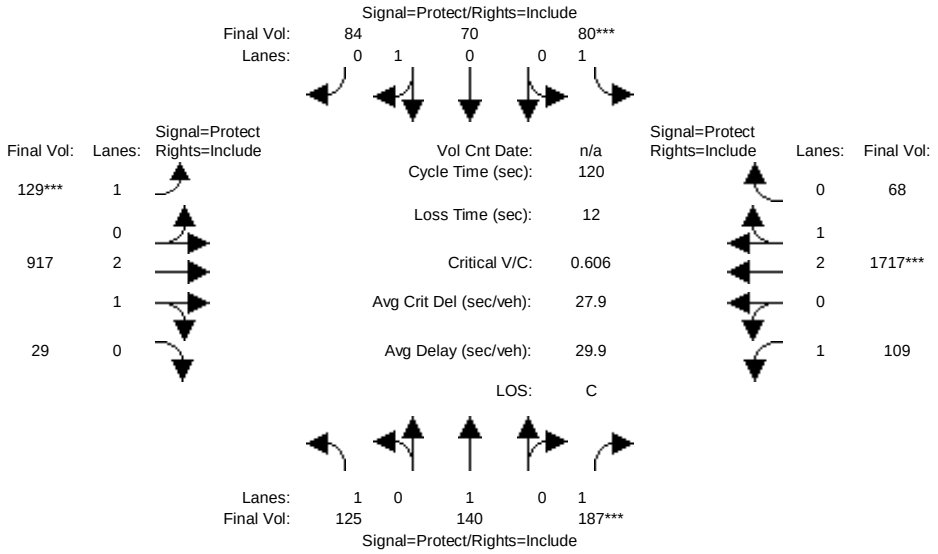
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #21: Stevens Creek Boulevard/Blaney Avenue



Street Name:	Blaney Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	125	140	179	64	70	84	129	854	29	104	1678	58
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	125	140	179	64	70	84	129	854	29	104	1678	58
Added Vol:	0	0	8	16	0	0	0	63	0	5	39	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	125	140	187	80	70	84	129	917	29	109	1717	68
User Adj:	1.00	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:	125	140	187	80	70	84	129	917	29	109	1717	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	125	140	187	80	70	84	129	917	29	109	1717	68
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	125	140	187	80	70	84	129	917	29	109	1717	68
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	1.00	1.00	1.00	0.45	0.55	1.00	2.90	0.10	1.00	2.88	0.12
Final Sat.:	1750	1900	1750	1750	818	982	1750	5428	172	1750	5386	213
Capacity Analysis Module:												
Vol/Sat:	0.07	0.07	0.11	0.05	0.09	0.09	0.07	0.17	0.17	0.06	0.32	0.32
Crit Moves:			****	****			****				****	
Green Time:	13.8	21.2	21.2	9.1	16.5	16.5	14.6	56.8	56.8	20.9	63.2	63.2
Volume/Cap:	0.62	0.42	0.61	0.61	0.62	0.62	0.61	0.36	0.36	0.36	0.61	0.61
Uniform Del:	50.7	43.9	45.6	53.7	48.8	48.8	50.0	20.0	20.0	43.6	19.8	19.8
IncremntDel:	13.7	3.8	8.5	18.9	11.3	11.3	12.1	0.4	0.4	3.2	0.9	0.9
InitQueuDel:	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:	64.4	47.7	54.1	72.7	60.1	60.1	62.1	20.4	20.4	46.8	20.7	20.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	64.4	47.7	54.1	72.7	60.1	60.1	62.1	20.4	20.4	46.8	20.7	20.7
LOS by Move:	E	D	D-	E	E	E	E	C+	C+	D	C+	C+
HCM2kAvgQ:	144	121	191	103	165	165	145	183	183	100	388	388

Note: Queue reported is the distance per lane in feet.

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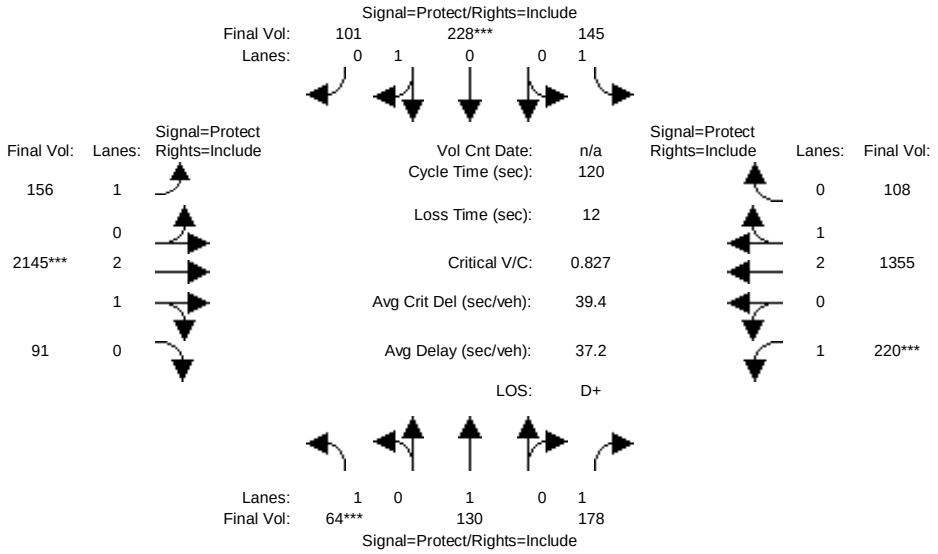
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #21: Stevens Creek Boulevard/Blaney Avenue



Street Name:	Blaney Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	64	130	151	91	228	101	156	1931	91	191	1123	50
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	64	130	151	91	228	101	156	1931	91	191	1123	50
Added Vol:	0	0	27	54	0	0	0	214	0	29	232	58
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	64	130	178	145	228	101	156	2145	91	220	1355	108
User Adj:	1.00	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	130	178	145	228	101	156	2145	91	220	1355	108
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	64	130	178	145	228	101	156	2145	91	220	1355	108
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	130	178	145	228	101	156	2145	91	220	1355	108
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	0.98	0.95	0.92	0.99	0.95
Lanes:	1.00	1.00	1.00	1.00	0.69	0.31	1.00	2.87	0.13	1.00	2.77	0.23
Final Sat.:	1750	1900	1750	1750	1247	553	1750	5372	228	1750	5186	413
Capacity Analysis Module:												
Vol/Sat:	0.04	0.07	0.10	0.08	0.18	0.18	0.09	0.40	0.40	0.13	0.26	0.26
Crit Moves:	****				****			****		****		
Green Time:	7.0	18.2	18.2	14.9	26.1	26.1	19.1	57.0	57.0	17.9	55.9	55.9
Volume/Cap:	0.63	0.45	0.67	0.67	0.84	0.84	0.56	0.84	0.84	0.84	0.56	0.56
Uniform Del:	55.2	46.3	48.0	50.2	45.0	45.0	46.6	27.5	27.5	49.6	23.2	23.2
IncremntDel:	25.7	5.0	12.6	15.3	19.2	19.2	8.0	3.4	3.4	26.5	0.9	0.9
InitQueuDel:	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:	80.9	51.3	60.7	65.5	64.2	64.2	54.6	31.0	31.0	76.2	24.1	24.1
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:	80.9	51.3	60.7	65.5	64.2	64.2	54.6	31.0	31.0	76.2	24.1	24.1
LOS by Move:	F	D-	E	E	E	E	D-	C	C	E-	C	C
HCM2kAvgQ:	90	118	196	168	369	369	160	660	660	277	331	331

Note: Queue reported is the distance per lane in feet.

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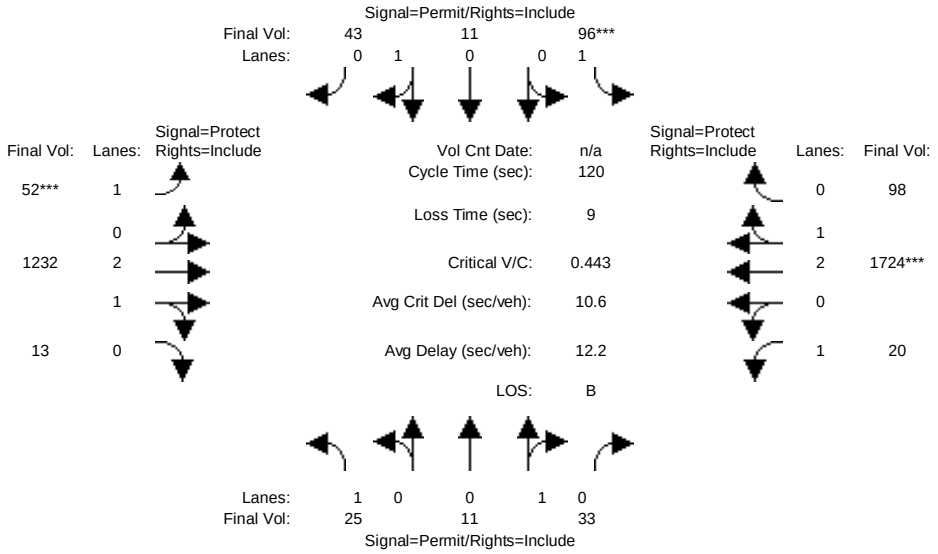
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #22: Stevens Creek Boulevard/Portal Avenue



Street Name:	Portal Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	25	11	33	96	11	43	52	1146	13	20	1671	98
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	11	33	96	11	43	52	1146	13	20	1671	98
Added Vol:	0	0	0	0	0	0	0	86	0	0	53	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	25	11	33	96	11	43	52	1232	13	20	1724	98
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	25	11	33	96	11	43	52	1232	13	20	1724	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	11	33	96	11	43	52	1232	13	20	1724	98
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	25	11	33	96	11	43	52	1232	13	20	1724	98
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	0.25	0.75	1.00	0.20	0.80	1.00	2.97	0.03	1.00	2.83	0.17
Final Sat.:	1750	450	1350	1750	367	1433	1750	5541	58	1750	5298	301
Capacity Analysis Module:												
Vol/Sat:	0.01	0.02	0.02	0.05	0.03	0.03	0.03	0.22	0.22	0.01	0.33	0.33
Crit Moves:				****			****				****	
Green Time:	14.9	14.9	14.9	14.9	14.9	14.9	8.0	76.2	76.2	20.0	88.1	88.1
Volume/Cap:	0.12	0.20	0.20	0.44	0.24	0.24	0.44	0.35	0.35	0.07	0.44	0.44
Uniform Del:	46.7	47.2	47.2	48.7	47.5	47.5	53.8	10.3	10.3	42.2	6.3	6.3
IncremntDel:	1.1	2.0	2.0	6.4	2.6	2.6	11.7	0.3	0.3	0.5	0.3	0.3
InitQueuDel:	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:	47.8	49.2	49.2	55.2	50.1	50.1	65.5	10.6	10.6	42.6	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:	47.8	49.2	49.2	55.2	50.1	50.1	65.5	10.6	10.6	42.6	6.6	6.6
LOS by Move:	D	D	D	E+	D	D	E	B+	B+	D	A	A
HCM2kAvgQ:	23	41	41	100	51	51	64	179	179	17	223	223

Note: Queue reported is the distance per lane in feet.

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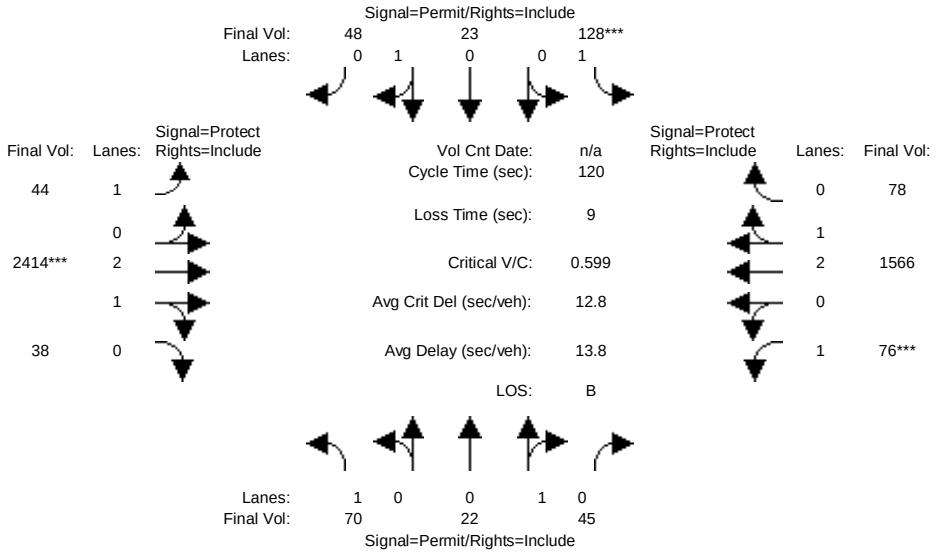
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #22: Stevens Creek Boulevard/Portal Avenue



Street Name:	Portal Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	70	22	45	128	23	48	44	2119	38	76	1247	78
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	70	22	45	128	23	48	44	2119	38	76	1247	78
Added Vol:	0	0	0	0	0	0	0	295	0	0	319	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	70	22	45	128	23	48	44	2414	38	76	1566	78
User Adj:	1.00	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:	70	22	45	128	23	48	44	2414	38	76	1566	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	70	22	45	128	23	48	44	2414	38	76	1566	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	70	22	45	128	23	48	44	2414	38	76	1566	78
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	0.33	0.67	1.00	0.32	0.68	1.00	2.95	0.05	1.00	2.85	0.15
Final Sat.:	1750	591	1209	1750	583	1217	1750	5513	87	1750	5334	266
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.04	0.07	0.04	0.04	0.03	0.44	0.44	0.04	0.29	0.29
Crit Moves:				****				****		****		
Green Time:	14.6	14.6	14.6	14.6	14.6	14.6	16.0	87.7	87.7	8.7	80.4	80.4
Volume/Cap:	0.33	0.31	0.31	0.60	0.32	0.32	0.19	0.60	0.60	0.60	0.44	0.44
Uniform Del:	48.2	48.0	48.0	49.9	48.1	48.1	46.3	7.8	7.8	54.0	9.3	9.3
IncremntDel:	4.1	3.6	3.6	11.8	3.9	3.9	1.8	0.7	0.7	19.2	0.4	0.4
InitQueuDel:	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:	52.2	51.6	51.6	61.7	52.0	52.0	48.0	8.4	8.4	73.2	9.6	9.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.2	51.6	51.6	61.7	52.0	52.0	48.0	8.4	8.4	73.2	9.6	9.6
LOS by Move:	D-	D-	D-	E	D-	D-	D	A	A	E	A	A
HCM2kAvgQ:	70	64	64	143	69	69	41	369	369	98	237	237

Note: Queue reported is the distance per lane in feet.

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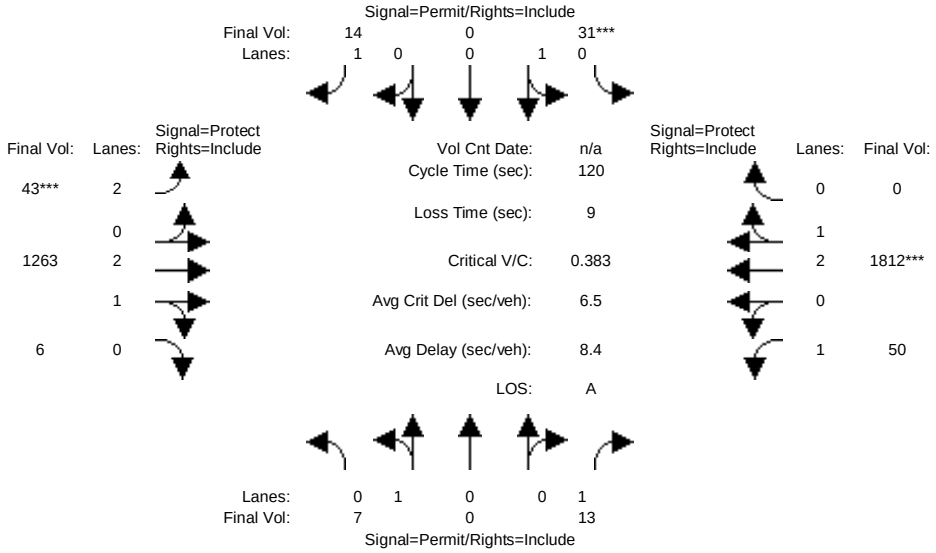
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #23: Stevens Creek Boulevard/Perimeter Road



Street Name:	Perimeter Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	7	0	13	31	0	14	43	1263	6	50	1812	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:	7	0	13	31	0	14	43	1263	6	50	1812	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:	7	0	13	31	0	14	43	1263	6	50	1812	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:	7	0	13	31	0	14	43	1263	6	50	1812	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	0	13	31	0	14	43	1263	6	50	1812	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:	7	0	13	31	0	14	43	1263	6	50	1812	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.95	0.95	0.92	0.83	0.98	0.95	0.92	0.98	0.92
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	2.00	2.99	0.01	1.00	3.00	0.00
Final Sat.:	1800	0	1750	1800	0	1750	3150	5573	26	1750	5600	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.01	0.02	0.00	0.01	0.01	0.23	0.23	0.03	0.32	0.00
Crit Moves:				****			****				****	
Green Time:	10.0	0.0	10.0	10.0	0.0	10.0	7.0	80.3	80.3	20.7	94.0	0.0
Volume/Cap:	0.05	0.00	0.09	0.21	0.00	0.10	0.23	0.34	0.34	0.17	0.41	0.00
Uniform Del:	50.6	0.0	50.8	51.3	0.0	50.8	53.9	8.5	8.5	42.3	4.2	0.0
IncremntDel:	0.6	0.0	1.2	3.1	0.0	1.3	3.0	0.2	0.2	1.2	0.3	0.0
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	51.2	0.0	52.0	54.4	0.0	52.1	56.9	8.7	8.7	43.5	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:	51.2	0.0	52.0	54.4	0.0	52.1	56.9	8.7	8.7	43.5	4.5	0.0
LOS by Move:	D-	A	D-	D-	A	D-	E+	A	A	D	A	A
HCM2kAvgQ:	7	0	13	32	0	14	28	166	166	39	172	0

Note: Queue reported is the distance per lane in feet.

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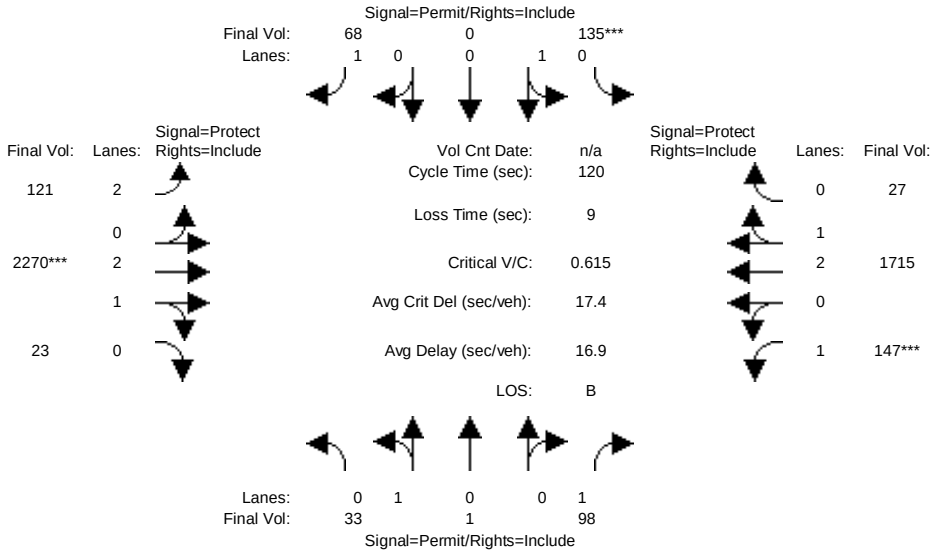
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #23: Stevens Creek Boulevard/Perimeter Road



Street Name:	Perimeter Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	33	1	98	135	0	68	121	2270	23	147	1715	27
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	33	1	98	135	0	68	121	2270	23	147	1715	27
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:	33	1	98	135	0	68	121	2270	23	147	1715	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:	33	1	98	135	0	68	121	2270	23	147	1715	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	1	98	135	0	68	121	2270	23	147	1715	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:	33	1	98	135	0	68	121	2270	23	147	1715	27
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.95	0.95	0.92	0.83	0.98	0.95	0.92	0.98	0.95
Lanes:	0.97	0.03	1.00	1.00	0.00	1.00	2.00	2.97	0.03	1.00	2.95	0.05
Final Sat.:	1747	53	1750	1800	0	1750	3150	5544	56	1750	5513	87
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.06	0.08	0.00	0.04	0.04	0.41	0.41	0.08	0.31	0.31
Crit Moves:				****				****		****		
Green Time:	14.6	14.6	14.6	14.6	0.0	14.6	15.2	80.0	80.0	16.4	81.1	81.1
Volume/Cap:	0.15	0.15	0.46	0.61	0.00	0.32	0.30	0.61	0.61	0.61	0.46	0.46
Uniform Del:	47.1	47.1	49.0	50.0	0.0	48.1	47.6	11.3	11.3	48.8	9.1	9.1
IncremntDel:	1.5	1.5	6.9	12.2	0.0	3.9	1.9	0.8	0.8	11.3	0.4	0.4
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	48.6	48.6	55.9	62.2	0.0	52.0	49.5	12.1	12.1	60.1	9.5	9.5
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:	48.6	48.6	55.9	62.2	0.0	52.0	49.5	12.1	12.1	60.1	9.5	9.5
LOS by Move:	D	D	E+	E	A	D-	D	B	B	E	A	A
HCM2kAvgQ:	31	31	103	148	0	68	66	405	405	131	242	242

Note: Queue reported is the distance per lane in feet.

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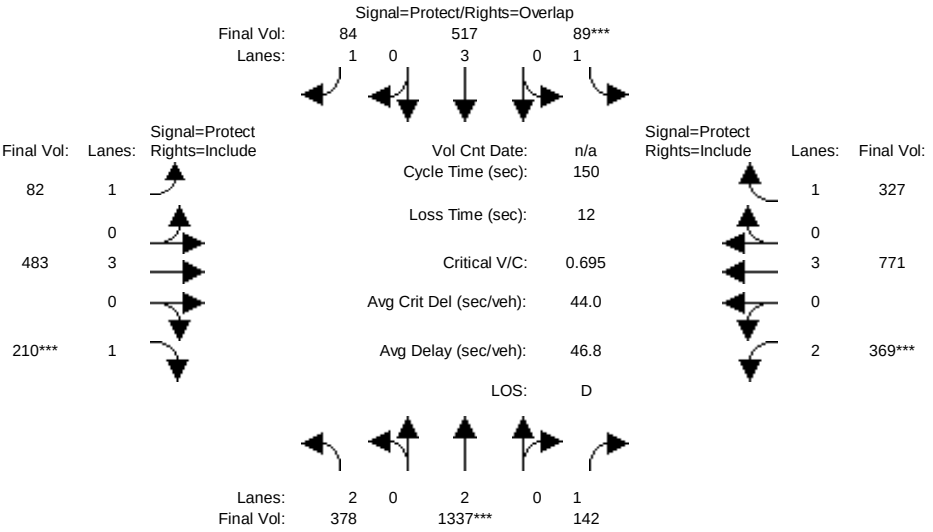
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #24: Wolfe Road/El Camino Real



Street Name:	Wolfe Road						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	364	1327	142	89	501	84	82	483	186	369	771	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:	364	1327	142	89	501	84	82	483	186	369	771	327
Added Vol:	14	10	0	0	16	0	0	0	24	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	378	1337	142	89	517	84	82	483	210	369	771	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:	378	1337	142	89	517	84	82	483	210	369	771	327
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	378	1337	142	89	517	84	82	483	210	369	771	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:	378	1337	142	89	517	84	82	483	210	369	771	327
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3150	3800	1750	1750	5700	1750	1750	5700	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.12	0.35	0.08	0.05	0.09	0.05	0.05	0.08	0.12	0.12	0.14	0.19
Crit Moves:		****		****					****	****		
Green Time:	49.5	75.9	75.9	11.0	37.4	47.6	10.3	25.9	25.9	25.3	40.9	40.9
Volume/Cap:	0.36	0.70	0.16	0.70	0.36	0.15	0.69	0.49	0.70	0.70	0.50	0.69
Uniform Del:	38.3	28.2	19.9	67.9	46.5	36.7	68.3	56.1	58.4	58.7	45.9	48.8
IncremntDel:	1.0	2.1	0.4	26.9	0.7	0.6	27.5	1.8	12.5	7.4	1.1	7.8
InitQueuDel:	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:	39.3	30.4	20.3	94.7	47.2	37.3	95.8	57.9	70.8	66.1	47.0	56.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.3	30.4	20.3	94.7	47.2	37.3	95.8	57.9	70.8	66.1	47.0	56.6
LOS by Move:	D	C	C+	F	D	D+	F	E+	E	E	D	E+
HCM2kAvgQ:	195	585	91	141	162	73	132	175	273	268	249	380

Note: Queue reported is the distance per lane in feet.

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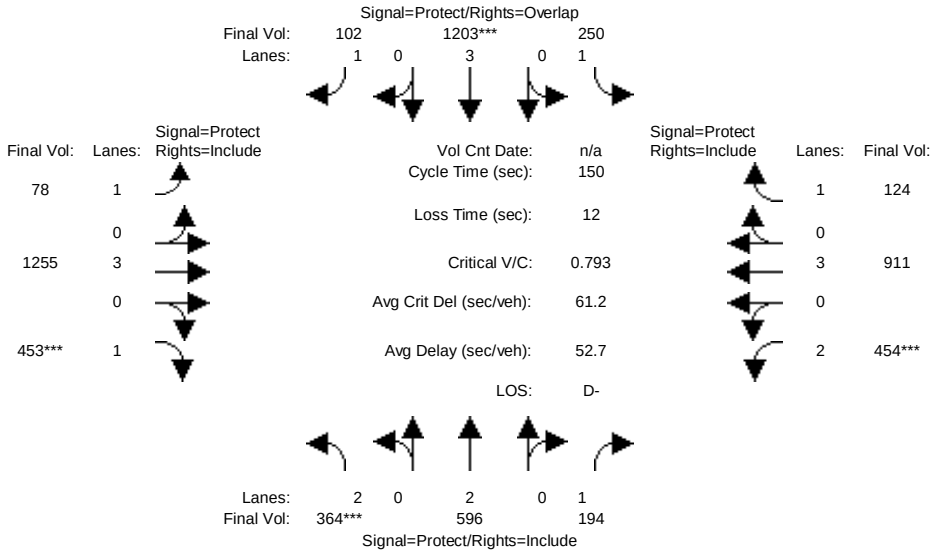
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #24: Wolfe Road/El Camino Real



Street Name:	Wolfe Road						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	277	538	194	250	1149	102	78	1255	373	454	911	124
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	277	538	194	250	1149	102	78	1255	373	454	911	124
Added Vol:	87	58	0	0	54	0	0	0	80	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	364	596	194	250	1203	102	78	1255	453	454	911	124
User Adj:	1.00	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	596	194	250	1203	102	78	1255	453	454	911	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	364	596	194	250	1203	102	78	1255	453	454	911	124
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	364	596	194	250	1203	102	78	1255	453	454	911	124
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3150	3800	1750	1750	5700	1750	1750	5700	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.12	0.16	0.11	0.14	0.21	0.06	0.04	0.22	0.26	0.14	0.16	0.07
Crit Moves:	****				****				****	****		
Green Time:	21.9	32.3	32.3	29.4	39.9	57.1	17.2	49.0	49.0	27.3	59.0	59.0
Volume/Cap:	0.79	0.73	0.51	0.73	0.79	0.15	0.39	0.67	0.79	0.79	0.41	0.18
Uniform Del:	61.9	54.7	51.9	56.5	51.2	30.5	61.5	43.6	45.9	58.7	32.9	29.7
IncremntDel:	13.2	5.6	4.9	12.7	4.3	0.5	5.6	2.0	10.8	10.8	0.5	0.6
InitQueuDel:	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:	75.1	60.4	56.9	69.2	55.5	31.0	67.1	45.6	56.7	69.5	33.4	30.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	75.1	60.4	56.9	69.2	55.5	31.0	67.1	45.6	56.7	69.5	33.4	30.3
LOS by Move:	E-	E	E+	E	E+	C	E	D	E+	E	C-	C
HCM2kAvgQ:	290	346	219	322	466	80	97	425	546	345	245	97

Note: Queue reported is the distance per lane in feet.

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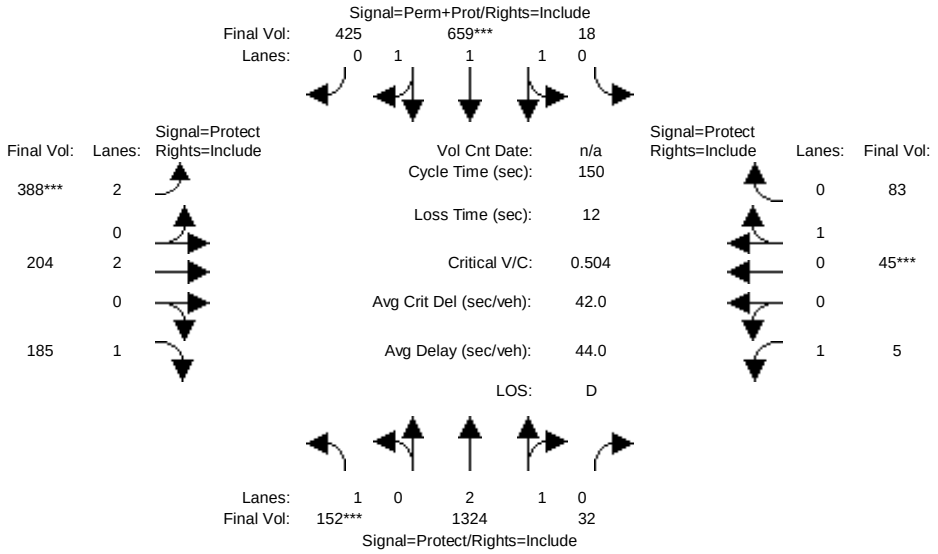
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #25: Wolfe Road/Fremont Avenue



Street Name:	Wolfe Road						Fremont Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	152	1300	32	18	620	425	388	204	185	5	45	83
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	152	1300	32	18	620	425	388	204	185	5	45	83
Added Vol:	0	24	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:	152	1324	32	18	659	425	388	204	185	5	45	83
User Adj:	1.00	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:	152	1324	32	18	659	425	388	204	185	5	45	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	152	1324	32	18	659	425	388	204	185	5	45	83
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	152	1324	32	18	659	425	388	204	185	5	45	83
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.95	0.98	0.95	0.83	1.00	0.92	0.92	0.95	0.95
Lanes:	1.00	2.93	0.07	0.05	1.95	1.00	2.00	2.00	1.00	1.00	0.35	0.65
Final Sat.:	1750	5468	132	99	3610	1800	3150	3800	1750	1750	633	1167
Capacity Analysis Module:												
Vol/Sat:	0.09	0.24	0.24	0.00	0.18	0.24	0.12	0.05	0.11	0.00	0.07	0.07
Crit Moves:	****				****		****				****	
Green Time:	25.5	54.0	54.0	43.7	69.2	69.2	27.5	30.0	30.0	13.3	15.9	15.9
Volume/Cap:	0.51	0.67	0.67	0.63	0.40	0.51	0.67	0.27	0.53	0.03	0.67	0.67
Uniform Del:	56.6	40.5	40.5	46.1	26.6	28.5	57.1	50.7	53.6	62.5	64.6	64.6
IncremntDel:	6.2	1.8	1.8	1.7	0.4	0.9	6.2	0.9	5.6	0.4	17.4	17.4
InitQueuDel:	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:	62.8	42.4	42.4	47.8	27.0	29.3	63.2	51.5	59.2	62.9	82.0	82.0
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:	62.8	42.4	42.4	47.8	27.0	29.3	63.2	51.5	59.2	62.9	82.0	82.0
LOS by Move:	E	D	D	D	C	C	E	D-	E+	E	F	F
HCM2kAvgQ:	181	453	453	353	254	355	273	99	214	6	178	178

Note: Queue reported is the distance per lane in feet.

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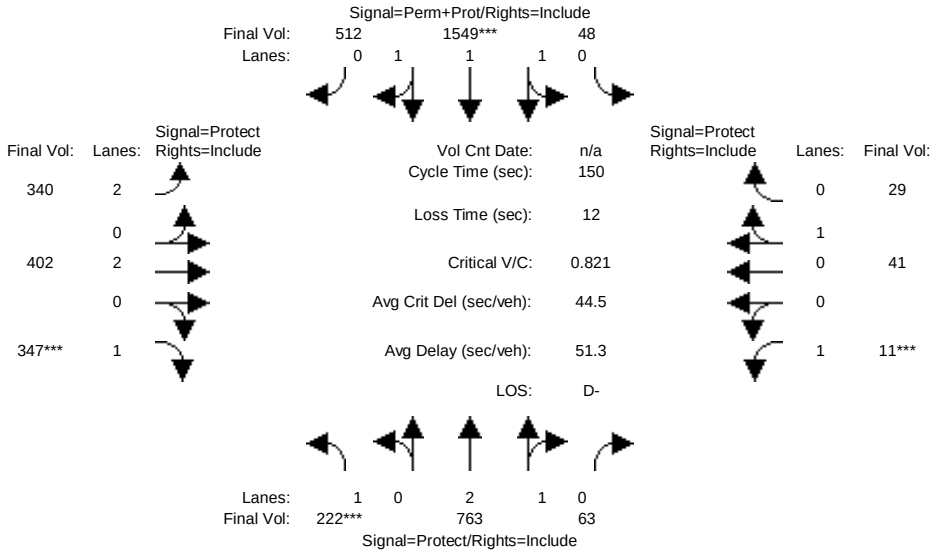
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #25: Wolfe Road/Fremont Avenue



Street Name:	Wolfe Road						Fremont Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	222	618	63	48	1415	512	340	402	347	11	41	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	222	618	63	48	1415	512	340	402	347	11	41	29
Added Vol:	0	145	0	0	134	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	222	763	63	48	1549	512	340	402	347	11	41	29
User Adj:	1.00	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:	222	763	63	48	1549	512	340	402	347	11	41	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	222	763	63	48	1549	512	340	402	347	11	41	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	222	763	63	48	1549	512	340	402	347	11	41	29
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.95	0.97	0.95	0.83	1.00	0.92	0.92	0.95	0.95
Lanes:	1.00	2.76	0.24	0.07	2.19	0.74	2.00	2.00	1.00	1.00	0.59	0.41
Final Sat.:	1750	5172	427	125	4039	1335	3150	3800	1750	1750	1054	746
Capacity Analysis Module:												
Vol/Sat:	0.13	0.15	0.15	0.00	0.38	0.38	0.11	0.11	0.20	0.01	0.04	0.04
Crit Moves:	****				****				****	****		
Green Time:	23.7	26.5	26.5	71.9	71.7	71.7	26.3	35.6	35.6	7.0	16.3	16.3
Volume/Cap:	0.80	0.84	0.84	0.80	0.80	0.80	0.61	0.45	0.84	0.13	0.36	0.36
Uniform Del:	60.9	59.6	59.6	33.0	33.2	33.2	57.1	48.8	54.4	68.6	62.0	62.0
IncremntDel:	21.3	8.3	8.3	2.7	2.7	2.7	5.0	1.6	17.7	3.4	5.1	5.1
InitQueuDel:	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:	82.2	67.9	67.9	35.6	35.9	35.9	62.2	50.4	72.1	72.0	67.1	67.1
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:	82.2	67.9	67.9	35.6	35.9	35.9	62.2	50.4	72.1	72.0	67.1	67.1
LOS by Move:	F	E	E	D+	D+	D+	E	D	E	E	E	E
HCM2kAvgQ:	315	367	367	728	731	731	234	198	464	16	85	85

Note: Queue reported is the distance per lane in feet.

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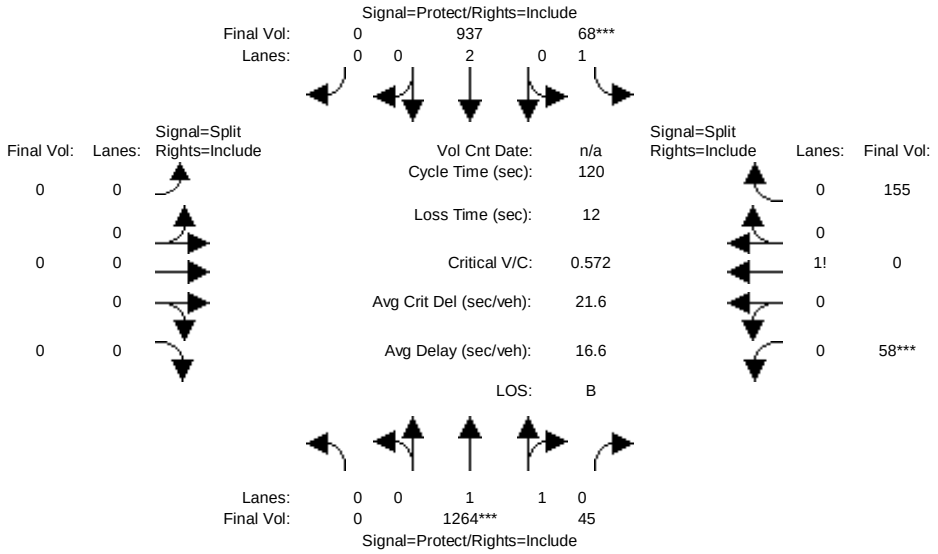
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #26: Wolfe Road/Marion Way



Street Name:	Wolfe Road						Marion Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1240	40	68	898	0	0	0	0	50	0	155
Growth Adj:	1.00	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	1240	40	68	898	0	0	0	0	50	0	155
Added Vol:	0	24	5	0	39	0	0	0	0	8	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1264	45	68	937	0	0	0	0	58	0	155
User Adj:	1.00	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	1264	45	68	937	0	0	0	0	58	0	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1264	45	68	937	0	0	0	0	58	0	155
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1264	45	68	937	0	0	0	0	58	0	155
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	0.00	1.93	0.07	1.00	2.00	0.00	0.00	0.00	0.00	0.27	0.00	0.73
Final Sat.:	0	3573	127	1750	3800	0	0	0	0	477	0	1273
Capacity Analysis Module:												
Vol/Sat:	0.00	0.35	0.35	0.04	0.25	0.00	0.00	0.00	0.00	0.12	0.00	0.12
Crit Moves:		****		****						****		
Green Time:	0.0	74.3	74.3	8.2	82.4	0.0	0.0	0.0	0.0	25.6	0.0	25.6
Volume/Cap:	0.00	0.57	0.57	0.57	0.36	0.00	0.00	0.00	0.00	0.57	0.00	0.57
Uniform Del:	0.0	13.5	13.5	54.2	7.8	0.0	0.0	0.0	0.0	42.3	0.0	42.3
IncremntDel:	0.0	1.0	1.0	18.4	0.4	0.0	0.0	0.0	0.0	6.2	0.0	6.2
InitQueuDel:	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	14.5	14.5	72.6	8.2	0.0	0.0	0.0	0.0	48.6	0.0	48.6
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	14.5	14.5	72.6	8.2	0.0	0.0	0.0	0.0	48.6	0.0	48.6
LOS by Move:	A	B	B	E	A	A	A	A	A	D	A	D
HCM2kAvgQ:	0	363	363	88	176	0	0	0	0	204	0	204

Note: Queue reported is the distance per lane in feet.

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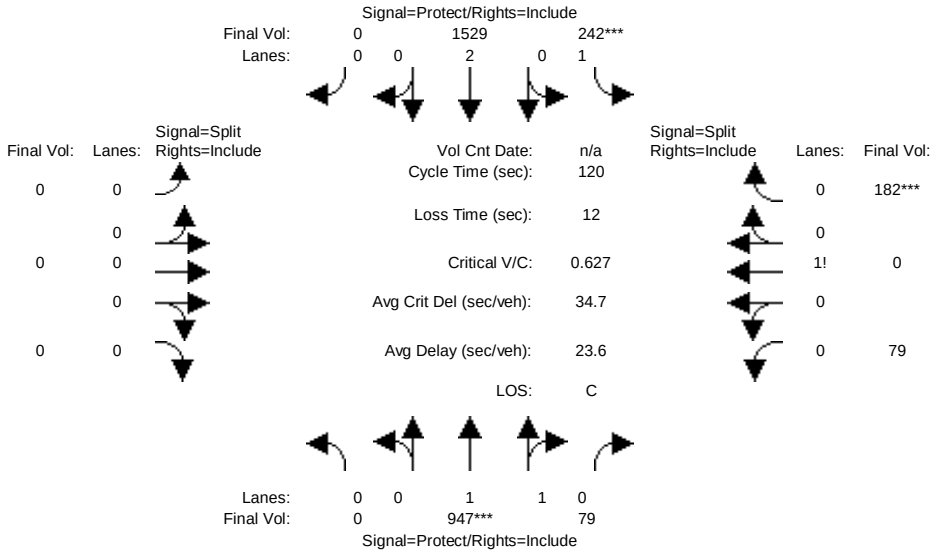
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #26: Wolfe Road/Marion Way



Street Name:	Wolfe Road						Marion Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	802	50	242	1395	0	0	0	0	52	0	182
Growth Adj:	1.00	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	802	50	242	1395	0	0	0	0	52	0	182
Added Vol:	0	145	29	0	134	0	0	0	0	27	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	947	79	242	1529	0	0	0	0	79	0	182
User Adj:	1.00	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	947	79	242	1529	0	0	0	0	79	0	182
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	947	79	242	1529	0	0	0	0	79	0	182
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	947	79	242	1529	0	0	0	0	79	0	182
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	0.00	1.84	0.16	1.00	2.00	0.00	0.00	0.00	0.00	0.30	0.00	0.70
Final Sat.:	0	3415	285	1750	3800	0	0	0	0	530	0	1220
Capacity Analysis Module:												
Vol/Sat:	0.00	0.28	0.28	0.14	0.40	0.00	0.00	0.00	0.00	0.15	0.00	0.15
Crit Moves:		****		****								****
Green Time:	0.0	53.0	53.0	26.4	79.5	0.0	0.0	0.0	0.0	28.5	0.0	28.5
Volume/Cap:	0.00	0.63	0.63	0.63	0.61	0.00	0.00	0.00	0.00	0.63	0.00	0.63
Uniform Del:	0.0	25.9	25.9	42.3	11.4	0.0	0.0	0.0	0.0	41.0	0.0	41.0
IncremntDel:	0.0	1.8	1.8	7.5	1.1	0.0	0.0	0.0	0.0	7.0	0.0	7.0
InitQueuDel:	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	27.7	27.7	49.8	12.5	0.0	0.0	0.0	0.0	48.0	0.0	48.0
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	27.7	27.7	49.8	12.5	0.0	0.0	0.0	0.0	48.0	0.0	48.0
LOS by Move:	A	C	C	D	B	A	A	A	A	D	A	D
HCM2kAvgQ:	0	379	379	237	398	0	0	0	0	251	0	251

Note: Queue reported is the distance per lane in feet.

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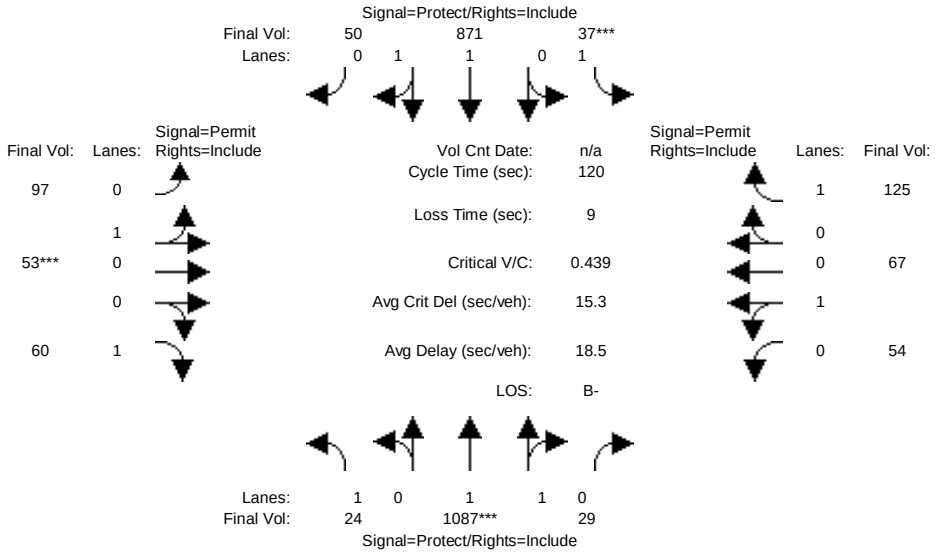
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #27: Wolfe Road/Iverness Avenue



Street Name:	Wolfe Road						Iverness Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	24	1058	29	37	824	50	97	53	60	54	67	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	24	1058	29	37	824	50	97	53	60	54	67	125
Added Vol:	0	29	0	0	47	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	24	1087	29	37	871	50	97	53	60	54	67	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	24	1087	29	37	871	50	97	53	60	54	67	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	1087	29	37	871	50	97	53	60	54	67	125
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	24	1087	29	37	871	50	97	53	60	54	67	125
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.95	0.05	1.00	1.89	0.11	0.65	0.35	1.00	0.45	0.55	1.00
Final Sat.:	1750	3604	96	1750	3499	201	1164	636	1750	803	997	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.30	0.30	0.02	0.25	0.25	0.08	0.08	0.03	0.07	0.07	0.07
Crit Moves:		****		****				****				
Green Time:	16.8	81.5	81.5	7.0	71.7	71.7	22.5	22.5	22.5	22.5	22.5	22.5
Volume/Cap:	0.10	0.44	0.44	0.36	0.42	0.42	0.44	0.44	0.18	0.36	0.36	0.38
Uniform Del:	45.0	8.8	8.8	54.4	12.9	12.9	43.2	43.2	41.0	42.5	42.5	42.6
IncremntDel:	0.8	0.6	0.6	9.7	0.6	0.6	4.2	4.2	1.2	2.9	2.9	3.3
InitQueuDel:	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:	45.8	9.4	9.4	64.0	13.5	13.5	47.4	47.4	42.2	45.4	45.4	46.0
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:	45.8	9.4	9.4	64.0	13.5	13.5	47.4	47.4	42.2	45.4	45.4	46.0
LOS by Move:	D	A	A	E	B	B	D	D	D	D	D	D
HCM2kAvgQ:	22	239	239	46	229	229	136	136	51	106	106	114

Note: Queue reported is the distance per lane in feet.

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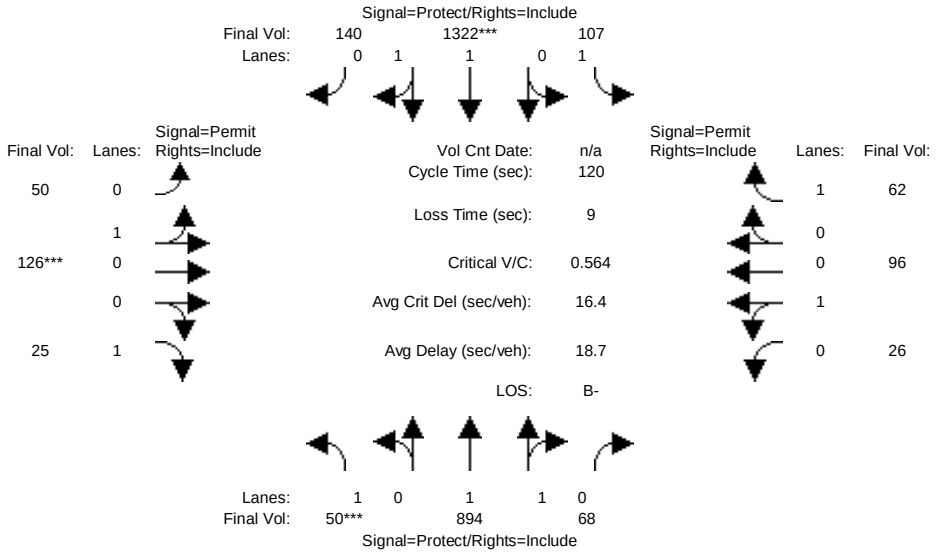
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #27: Wolfe Road/Iverness Avenue



Street Name:	Wolfe Road						Iverness Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	50	720	68	107	1161	140	50	126	25	26	96	62
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	720	68	107	1161	140	50	126	25	26	96	62
Added Vol:	0	174	0	0	161	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	50	894	68	107	1322	140	50	126	25	26	96	62
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	894	68	107	1322	140	50	126	25	26	96	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	894	68	107	1322	140	50	126	25	26	96	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	50	894	68	107	1322	140	50	126	25	26	96	62
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.85	0.15	1.00	1.80	0.20	0.28	0.72	1.00	0.21	0.79	1.00
Final Sat.:	1750	3438	262	1750	3345	354	511	1289	1750	384	1416	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.26	0.26	0.06	0.40	0.40	0.10	0.10	0.01	0.07	0.07	0.04
Crit Moves:	****				****			****				
Green Time:	7.0	73.2	73.2	17.2	83.4	83.4	20.6	20.6	20.6	20.6	20.6	20.6
Volume/Cap:	0.49	0.43	0.43	0.43	0.57	0.57	0.57	0.57	0.08	0.39	0.39	0.21
Uniform Del:	54.8	12.4	12.4	46.9	9.2	9.2	45.6	45.6	41.7	44.1	44.1	42.7
IncremntDel:	15.8	0.6	0.6	5.2	0.9	0.9	7.4	7.4	0.5	3.7	3.7	1.5
InitQueuDel:	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:	70.6	12.9	12.9	52.1	10.2	10.2	53.0	53.0	42.3	47.9	47.9	44.2
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:	70.6	12.9	12.9	52.1	10.2	10.2	53.0	53.0	42.3	47.9	47.9	44.2
LOS by Move:	E	B	B	D-	B+	B+	D-	D-	D	D	D	D
HCM2kAvgQ:	65	236	236	106	348	348	173	173	21	111	111	55

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
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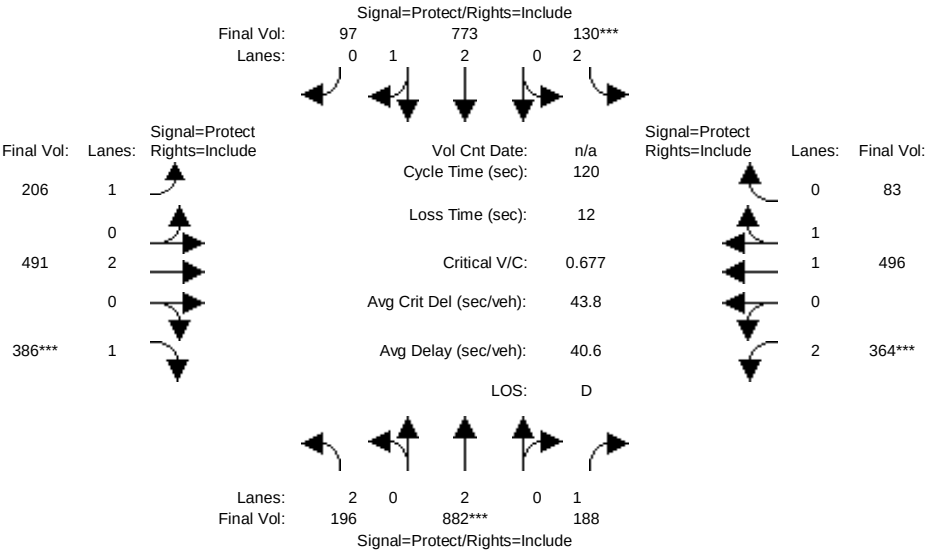
Ex V82 + Approved AM

Intersection #28: Wolfe Road/Homestead Road



Street Name:	Wolfe Road						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	196	853	169	130	726	97	206	491	386	309	496	83
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	196	853	169	130	726	97	206	491	386	309	496	83
Added Vol:	0	29	19	0	47	0	0	0	0	55	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	196	882	188	130	773	97	206	491	386	364	496	83
User Adj:	1.00	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:	196	882	188	130	773	97	206	491	386	364	496	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	196	882	188	130	773	97	206	491	386	364	496	83
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	196	882	188	130	773	97	206	491	386	364	496	83
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92	0.83	0.98	0.95
Lanes:	2.00	2.00	1.00	2.00	2.65	0.35	1.00	2.00	1.00	2.00	1.71	0.29
Final Sat.:	3150	3800	1750	3150	4975	624	1750	3800	1750	3150	3169	530
Capacity Analysis Module:												
Vol/Sat:	0.06	0.23	0.11	0.04	0.16	0.16	0.12	0.13	0.22	0.12	0.16	0.16
Crit Moves:		****		****					****	****		
Green Time:	13.9	41.1	41.1	7.3	34.6	34.6	25.6	39.1	39.1	20.5	34.0	34.0
Volume/Cap:	0.54	0.68	0.31	0.68	0.54	0.54	0.55	0.40	0.68	0.68	0.55	0.55
Uniform Del:	50.1	33.8	29.0	55.2	36.0	36.0	42.1	31.3	35.0	46.7	36.5	36.5
IncremntDel:	5.6	2.8	1.4	17.6	1.3	1.3	5.8	1.0	6.3	6.7	2.1	2.1
InitQueuDel:	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:	55.7	36.6	30.4	72.7	37.3	37.3	47.9	32.3	41.3	53.4	38.6	38.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	55.7	36.6	30.4	72.7	37.3	37.3	47.9	32.3	41.3	53.4	38.6	38.6
LOS by Move:	E+	D+	C	E	D+	D+	D	C-	D	D-	D+	D+
HCM2kAvgQ:	120	363	137	103	236	236	196	175	351	218	240	240

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
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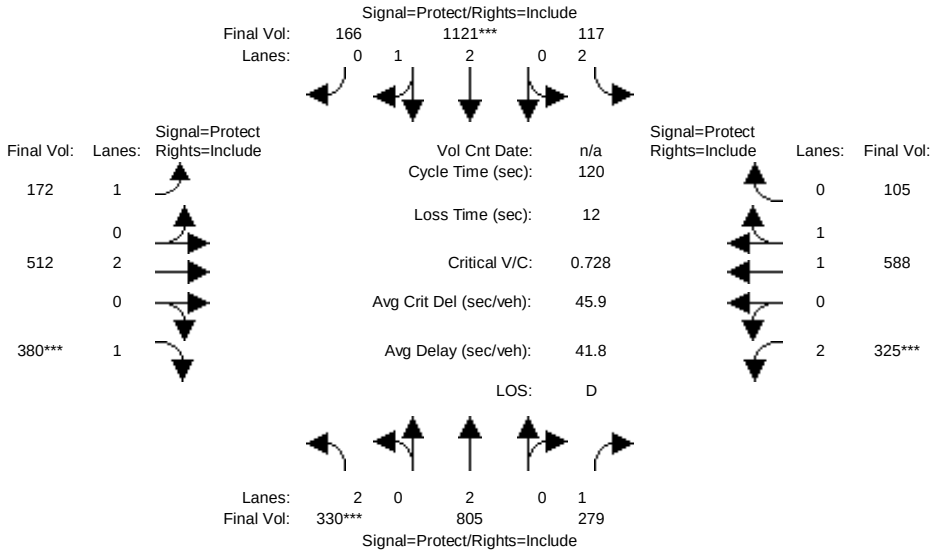
Ex V82 + Approved PM

Intersection #28: Wolfe Road/Homestead Road



Street Name:	Wolfe Road						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	330	631	163	117	960	166	172	512	380	137	588	105
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	330	631	163	117	960	166	172	512	380	137	588	105
Added Vol:	0	174	116	0	161	0	0	0	0	188	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	330	805	279	117	1121	166	172	512	380	325	588	105
User Adj:	1.00	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:	330	805	279	117	1121	166	172	512	380	325	588	105
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	330	805	279	117	1121	166	172	512	380	325	588	105
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	330	805	279	117	1121	166	172	512	380	325	588	105
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92	0.83	0.98	0.95
Lanes:	2.00	2.00	1.00	2.00	2.60	0.40	1.00	2.00	1.00	2.00	1.69	0.31
Final Sat.:	3150	3800	1750	3150	4877	722	1750	3800	1750	3150	3139	561
Capacity Analysis Module:												
Vol/Sat:	0.10	0.21	0.16	0.04	0.23	0.23	0.10	0.13	0.22	0.10	0.19	0.19
Crit Moves:	****				****				****	****		
Green Time:	17.3	43.3	43.3	11.9	37.9	37.9	18.2	35.8	35.8	17.0	34.6	34.6
Volume/Cap:	0.73	0.59	0.44	0.37	0.73	0.73	0.65	0.45	0.73	0.73	0.65	0.65
Uniform Del:	49.1	31.1	29.2	50.6	36.5	36.5	47.9	34.1	37.7	49.3	37.4	37.4
IncremntDel:	9.8	1.9	2.2	3.4	2.7	2.7	11.7	1.3	8.6	10.0	3.1	3.1
InitQueuDel:	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:	58.9	33.0	31.4	54.0	39.1	39.1	59.6	35.4	46.3	59.2	40.4	40.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	58.9	33.0	31.4	54.0	39.1	39.1	59.6	35.4	46.3	59.2	40.4	40.4
LOS by Move:	E+	C-	C	D-	D	D	E+	D+	D	E+	D	D
HCM2kAvgQ:	213	306	212	69	383	383	187	193	368	210	303	303

Note: Queue reported is the distance per lane in feet.

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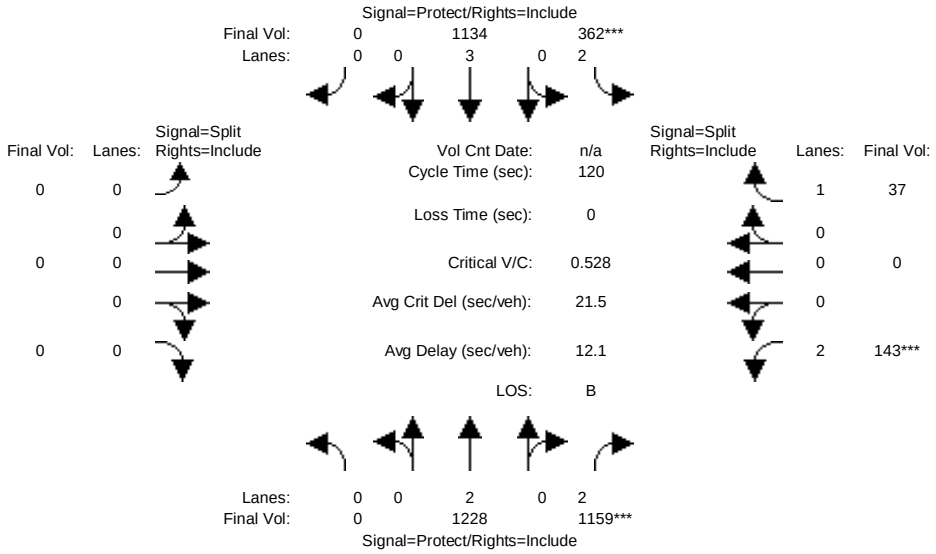
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #29: Wolfe Road/Apple Campus 2 Driveway



Street Name:	Wolfe Road						Apple Campus 2 Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	0	0	10	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1180	1159	362	1032	0	0	0	0	143	0	37
Growth Adj:	1.00	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	1180	1159	362	1032	0	0	0	0	143	0	37
Added Vol:	0	48	0	0	102	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1228	1159	362	1134	0	0	0	0	143	0	37
User Adj:	1.00	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	1228	1159	362	1134	0	0	0	0	143	0	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1228	1159	362	1134	0	0	0	0	143	0	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1228	1159	362	1134	0	0	0	0	143	0	37
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	2.00	2.00	2.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3800	3150	3150	5700	0	0	0	0	3150	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.32	0.37	0.11	0.20	0.00	0.00	0.00	0.00	0.05	0.00	0.02
Crit Moves:			****	****						****		
Green Time:	0.0	83.6	83.6	26.1	110	0.0	0.0	0.0	0.0	10.3	0.0	10.3
Volume/Cap:	0.00	0.46	0.53	0.53	0.22	0.00	0.00	0.00	0.00	0.53	0.00	0.25
Uniform Del:	0.0	8.2	8.7	41.5	0.6	0.0	0.0	0.0	0.0	52.5	0.0	51.2
IncremntDel:	0.0	0.6	0.9	2.9	0.1	0.0	0.0	0.0	0.0	7.2	0.0	3.9
InitQueuDel:	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	8.8	9.7	44.4	0.6	0.0	0.0	0.0	0.0	59.7	0.0	55.1
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	8.8	9.7	44.4	0.6	0.0	0.0	0.0	0.0	59.7	0.0	55.1
LOS by Move:	A	A	A	D	A	A	A	A	A	E+	A	E+
HCM2kAvgQ:	0	251	307	188	41	0	0	0	0	94	0	39

Note: Queue reported is the distance per lane in feet.

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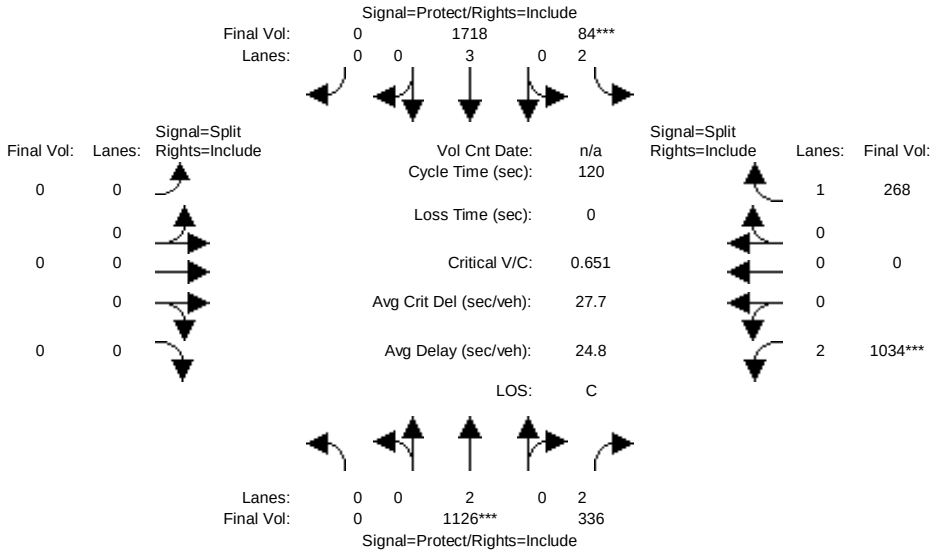
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #29: Wolfe Road/Apple Campus 2 Driveway



Street Name:	Wolfe Road						Apple Campus 2 Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	0	0	10	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	836	336	84	1370	0	0	0	0	1034	0	268
Growth Adj:	1.00	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	836	336	84	1370	0	0	0	0	1034	0	268
Added Vol:	0	290	0	0	348	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1126	336	84	1718	0	0	0	0	1034	0	268
User Adj:	1.00	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	1126	336	84	1718	0	0	0	0	1034	0	268
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1126	336	84	1718	0	0	0	0	1034	0	268
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1126	336	84	1718	0	0	0	0	1034	0	268
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	2.00	2.00	2.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3800	3150	3150	5700	0	0	0	0	3150	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.30	0.11	0.03	0.30	0.00	0.00	0.00	0.00	0.33	0.00	0.15
Crit Moves:		****		****						****		
Green Time:	0.0	54.6	54.6	4.9	59.5	0.0	0.0	0.0	0.0	60.5	0.0	60.5
Volume/Cap:	0.00	0.65	0.23	0.65	0.61	0.00	0.00	0.00	0.00	0.65	0.00	0.30
Uniform Del:	0.0	25.3	19.9	56.7	21.8	0.0	0.0	0.0	0.0	22.0	0.0	17.4
IncremntDel:	0.0	1.9	0.4	22.8	1.0	0.0	0.0	0.0	0.0	2.1	0.0	0.9
InitQueuDel:	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	27.2	20.3	79.5	22.8	0.0	0.0	0.0	0.0	24.1	0.0	18.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	27.2	20.3	79.5	22.8	0.0	0.0	0.0	0.0	24.1	0.0	18.3
LOS by Move:	A	C	C+	E-	C+	A	A	A	A	C	A	B-
HCM2kAvgQ:	0	408	111	75	382	0	0	0	0	428	0	153

Note: Queue reported is the distance per lane in feet.

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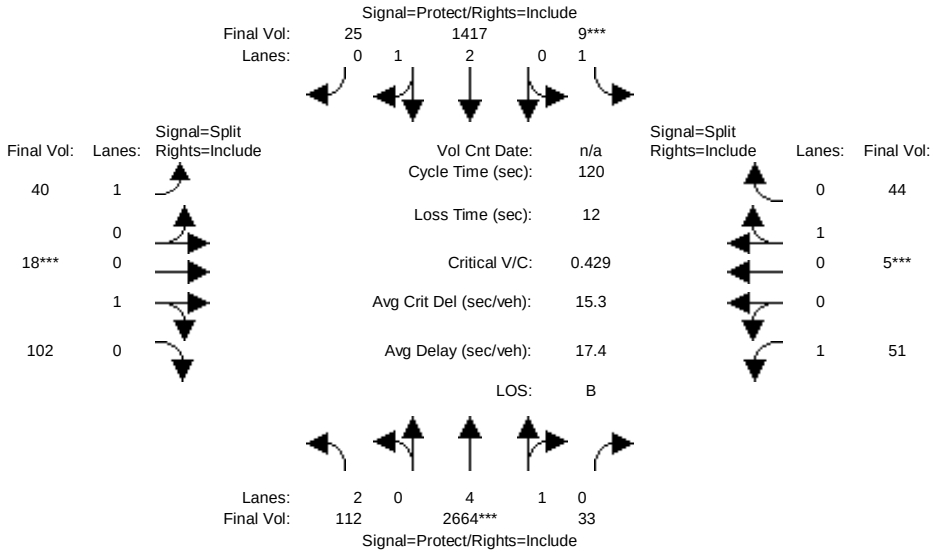
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #30: Wolfe Road/Pruneridge Avenue



Street Name:	Wolfe Road						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	112	2616	33	9	1315	25	40	18	102	51	5	44
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	112	2616	33	9	1315	25	40	18	102	51	5	44
Added Vol:	0	48	0	0	102	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	112	2664	33	9	1417	25	40	18	102	51	5	44
User Adj:	1.00	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:	112	2664	33	9	1417	25	40	18	102	51	5	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	112	2664	33	9	1417	25	40	18	102	51	5	44
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	112	2664	33	9	1417	25	40	18	102	51	5	44
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	2.00	4.94	0.06	1.00	2.95	0.05	1.00	0.15	0.85	1.00	0.10	0.90
Final Sat.:	3150	9285	115	1750	5503	97	1750	270	1530	1750	184	1616
Capacity Analysis Module:												
Vol/Sat:	0.04	0.29	0.29	0.01	0.26	0.26	0.02	0.07	0.07	0.03	0.03	0.03
Crit Moves:		****			****			****			****	
Green Time:	14.9	73.8	73.8	7.0	65.9	65.9	17.2	17.2	17.2	10.0	10.0	10.0
Volume/Cap:	0.29	0.47	0.47	0.09	0.47	0.47	0.16	0.47	0.47	0.35	0.33	0.33
Uniform Del:	47.7	12.4	12.4	53.5	16.4	16.4	45.1	47.2	47.2	51.9	51.8	51.8
IncremntDel:	1.8	0.3	0.3	1.7	0.5	0.5	1.4	6.0	6.0	6.5	5.7	5.7
InitQueuDel:	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:	49.5	12.7	12.7	55.2	16.9	16.9	46.5	53.2	53.2	58.4	57.5	57.5
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:	49.5	12.7	12.7	55.2	16.9	16.9	46.5	53.2	53.2	58.4	57.5	57.5
LOS by Move:	D	B	B	E+	B	B	D	D-	D-	E+	E+	E+
HCM2kAvgQ:	61	267	267	10	269	269	36	118	118	56	52	52

Note: Queue reported is the distance per lane in feet.

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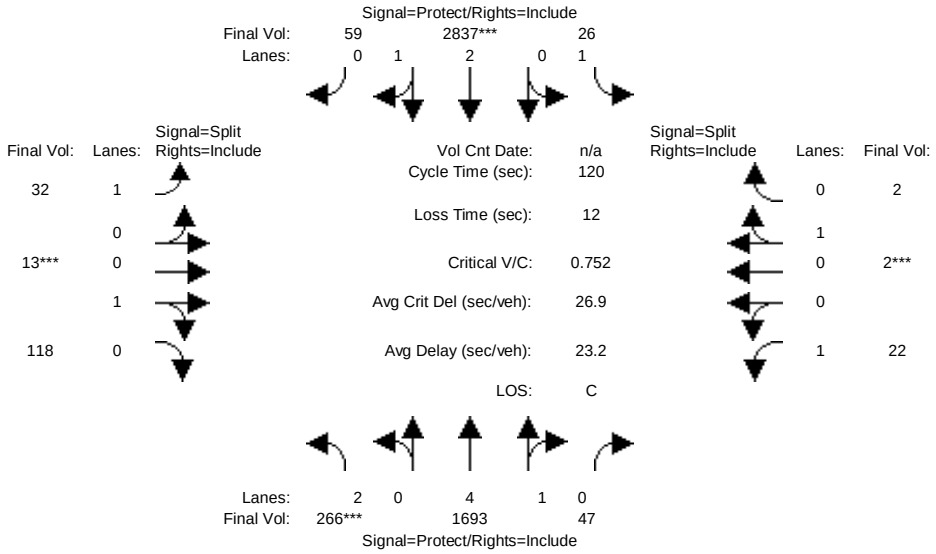
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #30: Wolfe Road/Pruneridge Avenue



Street Name:	Wolfe Road						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	266	1403	47	26	2489	59	32	13	118	22	2	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	266	1403	47	26	2489	59	32	13	118	22	2	2
Added Vol:	0	290	0	0	348	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	266	1693	47	26	2837	59	32	13	118	22	2	2
User Adj:	1.00	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:	266	1693	47	26	2837	59	32	13	118	22	2	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	266	1693	47	26	2837	59	32	13	118	22	2	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	266	1693	47	26	2837	59	32	13	118	22	2	2
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	2.00	4.86	0.14	1.00	2.94	0.06	1.00	0.10	0.90	1.00	0.50	0.50
Final Sat.:	3150	9146	254	1750	5486	114	1750	179	1621	1750	900	900
Capacity Analysis Module:												
Vol/Sat:	0.08	0.19	0.19	0.01	0.52	0.52	0.02	0.07	0.07	0.01	0.00	0.00
Crit Moves:	****				****			****			****	
Green Time:	12.3	66.5	66.5	20.9	75.2	75.2	10.6	10.6	10.6	10.0	10.0	10.0
Volume/Cap:	0.83	0.33	0.33	0.09	0.83	0.83	0.21	0.83	0.83	0.15	0.03	0.03
Uniform Del:	52.8	14.6	14.6	41.5	17.4	17.4	50.8	53.8	53.8	51.1	50.5	50.5
IncremntDel:	20.9	0.2	0.2	0.5	2.4	2.4	3.0	36.6	36.6	2.2	0.3	0.3
InitQueuDel:	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:	73.7	14.8	14.8	42.0	19.7	19.7	53.8	90.5	90.5	53.2	50.9	50.9
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:	73.7	14.8	14.8	42.0	19.7	19.7	53.8	90.5	90.5	53.2	50.9	50.9
LOS by Move:	E	B	B	D	B-	B-	D-	F	F	D-	D	D
HCM2kAvgQ:	202	173	173	22	736	736	33	181	181	23	4	4

Note: Queue reported is the distance per lane in feet.

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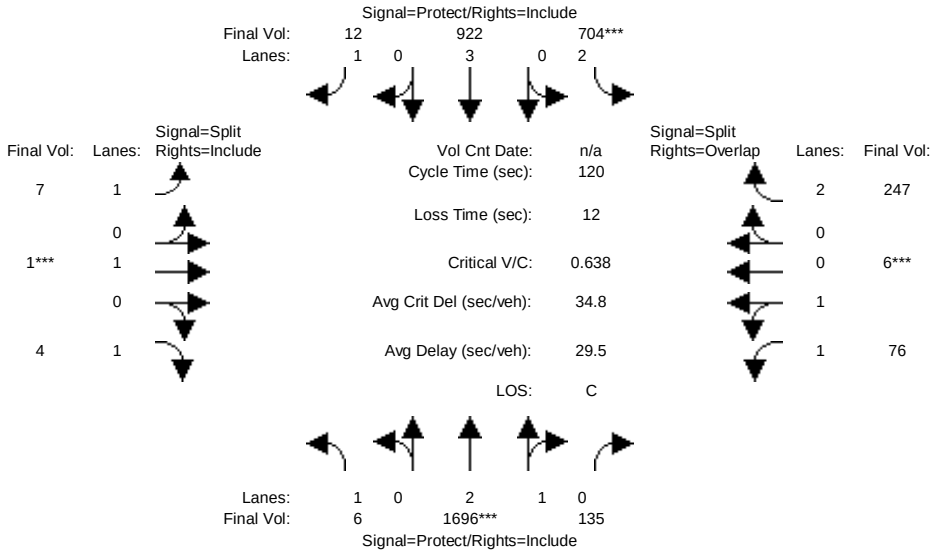
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #33: Wolfe Road/Vallco Parkway



Street Name:	Wolfe Road						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	6	1696	135	704	922	12	7	1	4	76	6	247
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	1696	135	704	922	12	7	1	4	76	6	247
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:	6	1696	135	704	922	12	7	1	4	76	6	247
User Adj:	1.00	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:	6	1696	135	704	922	12	7	1	4	76	6	247
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	1696	135	704	922	12	7	1	4	76	6	247
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	6	1696	135	704	922	12	7	1	4	76	6	247
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.83
Lanes:	1.00	2.77	0.23	2.00	3.00	1.00	1.00	1.00	1.00	1.86	0.14	2.00
Final Sat.:	1750	5187	413	3150	5700	1750	1750	1900	1750	3290	260	3150
Capacity Analysis Module:												
Vol/Sat:	0.00	0.33	0.33	0.22	0.16	0.01	0.00	0.00	0.00	0.02	0.02	0.08
Crit Moves:		****		****				****			****	
Green Time:	23.3	52.3	52.3	35.7	64.7	64.7	10.0	10.0	10.0	10.0	10.0	45.7
Volume/Cap:	0.02	0.75	0.75	0.75	0.30	0.01	0.05	0.01	0.03	0.28	0.28	0.21
Uniform Del:	39.1	28.4	28.4	38.1	15.2	12.8	50.6	50.4	50.5	51.6	51.6	24.9
IncremntDel:	0.1	2.2	2.2	5.5	0.3	0.0	0.6	0.1	0.3	2.3	2.3	0.4
InitQueuDel:	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:	39.2	30.6	30.6	43.6	15.5	12.9	51.2	50.5	50.9	53.9	53.9	25.3
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:	39.2	30.6	30.6	43.6	15.5	12.9	51.2	50.5	50.9	53.9	53.9	25.3
LOS by Move:	D	C	C	D	B	B	D-	D	D	D-	D-	C
HCM2kAvgQ:	5	484	484	381	156	5	7	1	4	38	38	91

Note: Queue reported is the distance per lane in feet.

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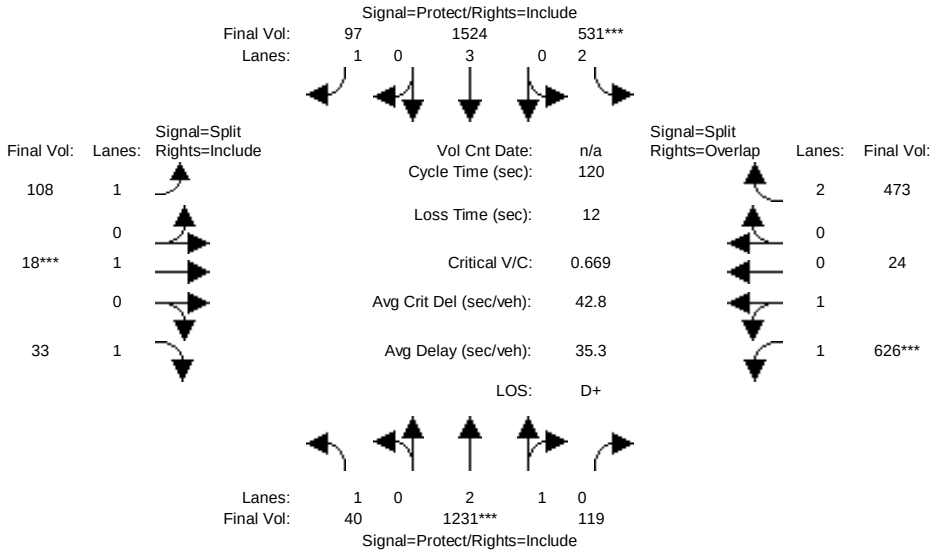
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #33: Wolfe Road/Vallco Parkway



Street Name:	Wolfe Road						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	40	1231	119	531	1524	97	108	18	33	626	24	473
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	40	1231	119	531	1524	97	108	18	33	626	24	473
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:	40	1231	119	531	1524	97	108	18	33	626	24	473
User Adj:	1.00	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	1231	119	531	1524	97	108	18	33	626	24	473
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	1231	119	531	1524	97	108	18	33	626	24	473
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1231	119	531	1524	97	108	18	33	626	24	473
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.83
Lanes:	1.00	2.73	0.27	2.00	3.00	1.00	1.00	1.00	1.00	1.93	0.07	2.00
Final Sat.:	1750	5106	494	3150	5700	1750	1750	1900	1750	3419	131	3150
Capacity Analysis Module:												
Vol/Sat:	0.02	0.24	0.24	0.17	0.27	0.06	0.06	0.01	0.02	0.18	0.18	0.15
Crit Moves:		****		****				****		****		
Green Time:	12.0	39.4	39.4	27.6	55.0	55.0	11.1	11.1	11.1	29.9	29.9	57.5
Volume/Cap:	0.23	0.73	0.73	0.73	0.58	0.12	0.67	0.10	0.20	0.73	0.73	0.31
Uniform Del:	49.7	35.6	35.6	42.8	24.0	18.6	52.7	49.9	50.4	41.4	41.4	19.1
IncremntDel:	3.0	2.6	2.6	6.5	1.0	0.3	19.9	1.2	2.8	5.4	5.4	0.5
InitQueuDel:	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	38.3	38.3	49.3	25.0	18.9	72.6	51.1	53.2	46.7	46.7	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:	52.8	38.3	38.3	49.3	25.0	18.9	72.6	51.1	53.2	46.7	46.7	19.7
LOS by Move:	D-	D+	D+	D	C	B-	E	D-	D-	D	D	B-
HCM2kAvgQ:	35	368	368	292	353	54	136	17	34	311	311	159

Note: Queue reported is the distance per lane in feet.

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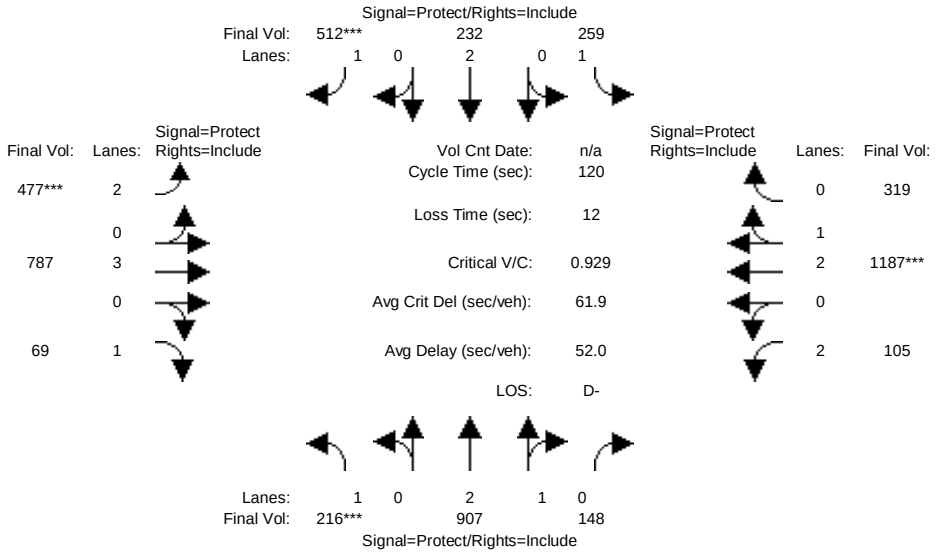
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #34: Wolfe Road/Stevens Creek Boulevard



Street Name:	Wolfe Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	216	907	148	259	232	512	477	787	69	105	1187	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:	216	907	148	259	232	512	477	787	69	105	1187	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:	216	907	148	259	232	512	477	787	69	105	1187	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:	216	907	148	259	232	512	477	787	69	105	1187	319
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	216	907	148	259	232	512	477	787	69	105	1187	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:	216	907	148	259	232	512	477	787	69	105	1187	319
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	1.00	0.92	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	1.00	2.56	0.44	1.00	2.00	1.00	2.00	3.00	1.00	2.00	2.34	0.66
Final Sat.:	1750	4813	785	1750	3800	1750	3150	5700	1750	3150	4412	1186
Capacity Analysis Module:												
Vol/Sat:	0.12	0.19	0.19	0.15	0.06	0.29	0.15	0.14	0.04	0.03	0.27	0.27
Crit Moves:	****					****	****				****	
Green Time:	15.9	30.1	30.1	23.6	37.8	37.8	19.6	38.2	38.2	16.1	34.7	34.7
Volume/Cap:	0.93	0.75	0.75	0.75	0.19	0.93	0.93	0.43	0.12	0.25	0.93	0.93
Uniform Del:	51.5	41.5	41.5	45.4	30.0	39.8	49.5	32.4	29.1	46.5	41.4	41.4
IncremntDel:	43.2	3.8	3.8	14.0	0.4	24.3	25.6	0.8	0.5	1.4	10.9	10.9
InitQueuDel:	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:	94.7	45.3	45.3	59.5	30.4	64.2	75.1	33.1	29.5	47.9	52.3	52.3
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:	94.7	45.3	45.3	59.5	30.4	64.2	75.1	33.1	29.5	47.9	52.3	52.3
LOS by Move:	F	D	D	E+	C	E	E-	C-	C	D	D-	D-
HCM2kAvgQ:	304	340	340	265	76	595	322	191	48	55	562	562

Note: Queue reported is the distance per lane in feet.

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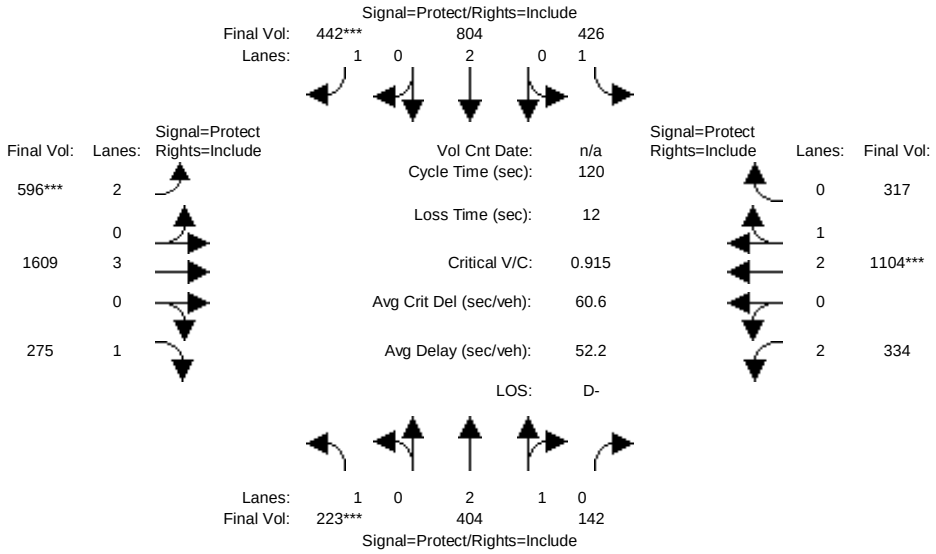
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #34: Wolfe Road/Stevens Creek Boulevard



Street Name:	Wolfe Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	223	404	142	426	804	442	596	1609	275	334	1104	317
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	223	404	142	426	804	442	596	1609	275	334	1104	317
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:	223	404	142	426	804	442	596	1609	275	334	1104	317
User Adj:	1.00	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:	223	404	142	426	804	442	596	1609	275	334	1104	317
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	223	404	142	426	804	442	596	1609	275	334	1104	317
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	223	404	142	426	804	442	596	1609	275	334	1104	317
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	1.00	0.92	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	1.00	2.19	0.81	1.00	2.00	1.00	2.00	3.00	1.00	2.00	2.31	0.69
Final Sat.:	1750	4142	1456	1750	3800	1750	3150	5700	1750	3150	4349	1249
Capacity Analysis Module:												
Vol/Sat:	0.13	0.10	0.10	0.24	0.21	0.25	0.19	0.28	0.16	0.11	0.25	0.25
Crit Moves:	****					****	****				****	
Green Time:	16.7	14.3	14.3	35.6	33.1	33.1	24.8	42.3	42.3	15.9	33.3	33.3
Volume/Cap:	0.91	0.82	0.82	0.82	0.77	0.91	0.91	0.80	0.45	0.80	0.91	0.91
Uniform Del:	50.9	51.6	51.6	39.2	39.9	42.1	46.5	35.1	29.9	50.5	42.0	42.0
IncremntDel:	39.1	10.9	10.9	13.6	5.3	24.4	19.6	3.5	2.3	14.9	9.9	9.9
InitQueuDel:	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:	90.1	62.5	62.5	52.8	45.2	66.4	66.1	38.6	32.2	65.5	51.8	51.8
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:	90.1	62.5	62.5	52.8	45.2	66.4	66.1	38.6	32.2	65.5	51.8	51.8
LOS by Move:	F	E	E	D-	D	E	E	D+	C-	E	D-	D-
HCM2kAvgQ:	306	223	223	427	358	494	375	472	207	233	525	525

Note: Queue reported is the distance per lane in feet.

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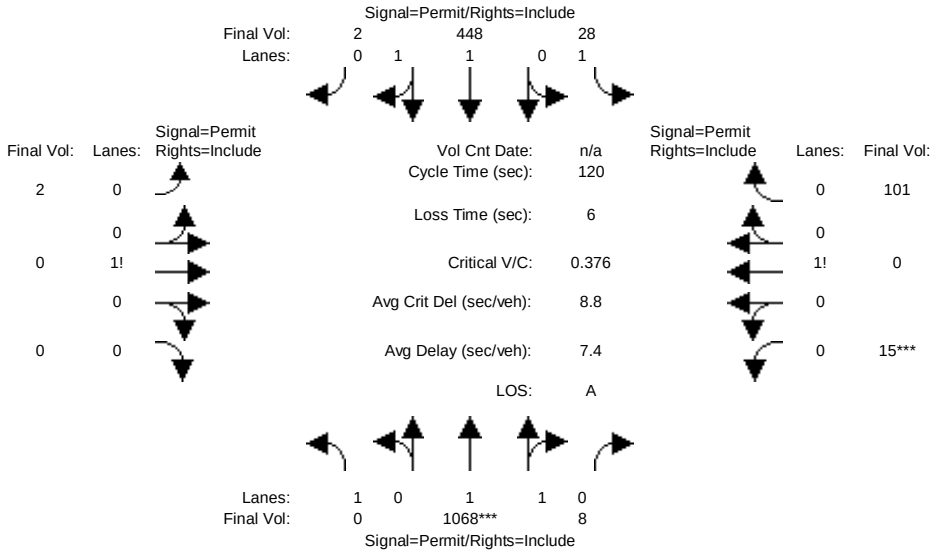
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #35: Miller Avenue/Calle De Barcelona



Street Name:	Miller Avenue						Calle De Barcelona					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1033	8	28	426	2	2	0	0	15	0	101
Growth Adj:	1.00	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	1033	8	28	426	2	2	0	0	15	0	101
Added Vol:	0	35	0	0	22	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1068	8	28	448	2	2	0	0	15	0	101
User Adj:	1.00	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	1068	8	28	448	2	2	0	0	15	0	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1068	8	28	448	2	2	0	0	15	0	101
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1068	8	28	448	2	2	0	0	15	0	101
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	1.98	0.02	1.00	1.99	0.01	1.00	0.00	0.00	0.13	0.00	0.87
Final Sat.:	1750	3672	28	1750	3684	16	1750	0	0	226	0	1524
Capacity Analysis Module:												
Vol/Sat:	0.00	0.29	0.29	0.02	0.12	0.12	0.00	0.00	0.00	0.07	0.00	0.07
Crit Moves:		****								****		
Green Time:	0.0	92.8	92.8	92.8	92.8	92.8	21.2	0.0	0.0	21.2	0.0	21.2
Volume/Cap:	0.00	0.38	0.38	0.02	0.16	0.16	0.01	0.00	0.00	0.38	0.00	0.38
Uniform Del:	0.0	4.3	4.3	3.1	3.5	3.5	40.8	0.0	0.0	43.6	0.0	43.6
IncremntDel:	0.0	0.4	0.4	0.0	0.1	0.1	0.0	0.0	0.0	3.5	0.0	3.5
InitQueuDel:	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	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	4.7	4.7	3.2	3.6	3.6	40.8	0.0	0.0	47.1	0.0	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:	0.0	4.7	4.7	3.2	3.6	3.6	40.8	0.0	0.0	47.1	0.0	47.1
LOS by Move:	A	A	A	A	A	A	D	A	A	D	A	D
HCM2kAvgQ:	0	162	162	6	54	54	2	0	0	107	0	107

Note: Queue reported is the distance per lane in feet.

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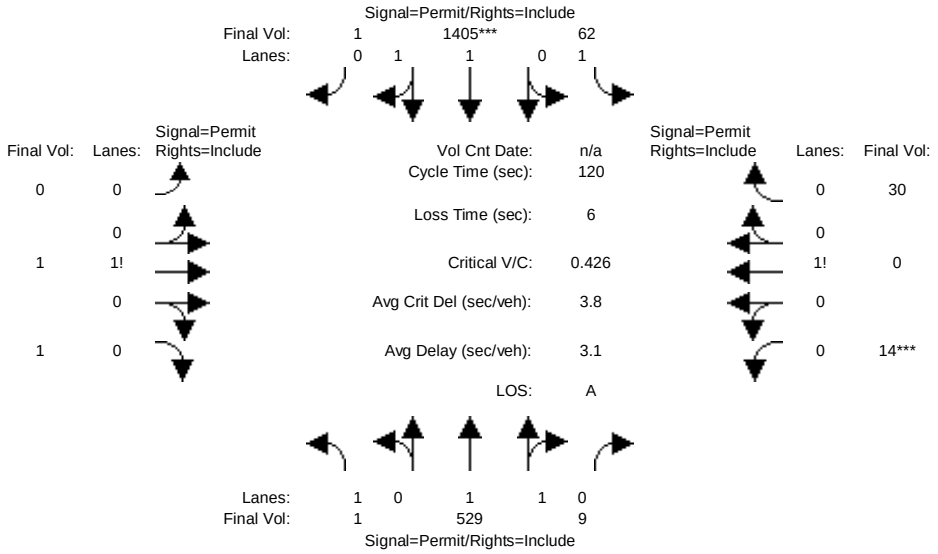
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #35: Miller Avenue/Calle De Barcelona



Street Name:	Miller Avenue						Calle De Barcelona					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	1	408	9	62	1274	1	0	1	1	14	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	408	9	62	1274	1	0	1	1	14	0	30
Added Vol:	0	121	0	0	131	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	529	9	62	1405	1	0	1	1	14	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	529	9	62	1405	1	0	1	1	14	0	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	529	9	62	1405	1	0	1	1	14	0	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:	1	529	9	62	1405	1	0	1	1	14	0	30
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	1.00	1.97	0.03	1.00	1.99	0.01	0.00	0.50	0.50	0.32	0.00	0.68
Final Sat.:	1750	3638	62	1750	3697	3	0	900	900	557	0	1193
Capacity Analysis Module:												
Vol/Sat:	0.00	0.15	0.15	0.04	0.38	0.38	0.00	0.00	0.00	0.03	0.00	0.03
Crit Moves:					****					****		
Green Time:	104.0	104	104.0	104.0	104	104.0	0.0	10.0	10.0	10.0	0.0	10.0
Volume/Cap:	0.00	0.17	0.17	0.04	0.44	0.44	0.00	0.01	0.01	0.30	0.00	0.30
Uniform Del:	1.1	1.2	1.2	1.1	1.7	1.7	0.0	50.5	50.5	51.7	0.0	51.7
IncremntDel:	0.0	0.1	0.1	0.1	0.4	0.4	0.0	0.2	0.2	5.2	0.0	5.2
InitQueuDel:	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	0.00	1.00	1.00	1.00	0.00	1.00
Delay/Veh:	1.1	1.4	1.4	1.2	2.2	2.2	0.0	50.6	50.6	57.0	0.0	57.0
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:	1.1	1.4	1.4	1.2	2.2	2.2	0.0	50.6	50.6	57.0	0.0	57.0
LOS by Move:	A	A	A	A	A	A	A	D	D	E+	A	E+
HCM2kAvgQ:	0	41	41	9	149	149	0	2	2	48	0	48

Note: Queue reported is the distance per lane in feet.

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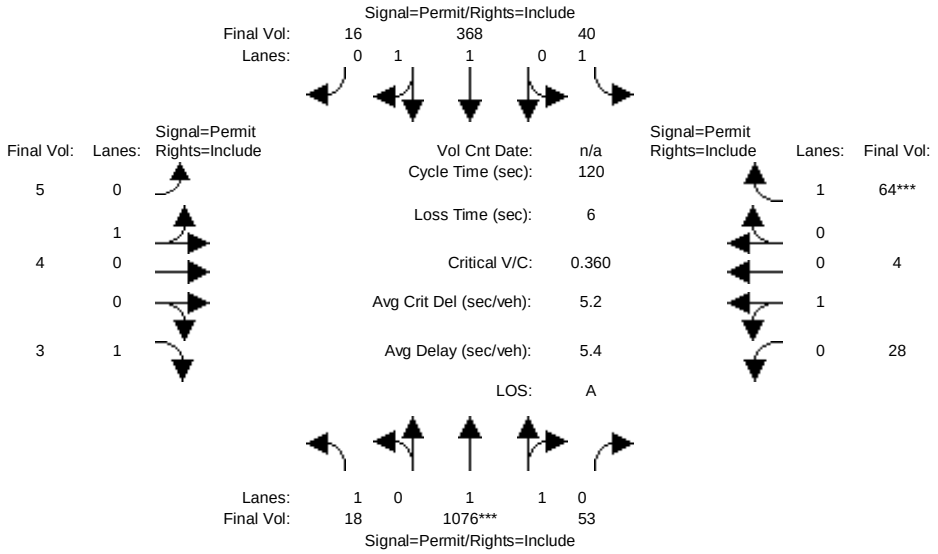
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #36: Miller Avenue/Phil Lane



Street Name:	Miller Avenue						Phil Lane					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	18	1041	53	40	346	16	5	4	3	28	4	64
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	1041	53	40	346	16	5	4	3	28	4	64
Added Vol:	0	35	0	0	22	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	1076	53	40	368	16	5	4	3	28	4	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:	18	1076	53	40	368	16	5	4	3	28	4	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	1076	53	40	368	16	5	4	3	28	4	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:	18	1076	53	40	368	16	5	4	3	28	4	64
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.90	0.10	1.00	1.91	0.09	0.56	0.44	1.00	0.87	0.13	1.00
Final Sat.:	1750	3526	174	1750	3546	154	1000	800	1750	1575	225	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.31	0.31	0.02	0.10	0.10	0.01	0.01	0.00	0.02	0.02	0.04
Crit Moves:		****										****
Green Time:	101.8	102	101.8	101.8	102	101.8	12.2	12.2	12.2	12.2	12.2	12.2
Volume/Cap:	0.01	0.36	0.36	0.03	0.12	0.12	0.05	0.05	0.02	0.17	0.17	0.36
Uniform Del:	1.4	2.0	2.0	1.4	1.5	1.5	48.7	48.7	48.5	49.3	49.3	50.3
IncremntDel:	0.0	0.3	0.3	0.0	0.1	0.1	0.5	0.5	0.2	2.1	2.1	5.6
InitQueuDel:	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:	1.4	2.3	2.3	1.4	1.6	1.6	49.2	49.2	48.7	51.4	51.4	55.8
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:	1.4	2.3	2.3	1.4	1.6	1.6	49.2	49.2	48.7	51.4	51.4	55.8
LOS by Move:	A	A	A	A	A	A	D	D	D	D-	D-	E+
HCM2kAvgQ:	3	119	119	6	31	31	8	8	3	31	31	68

Note: Queue reported is the distance per lane in feet.

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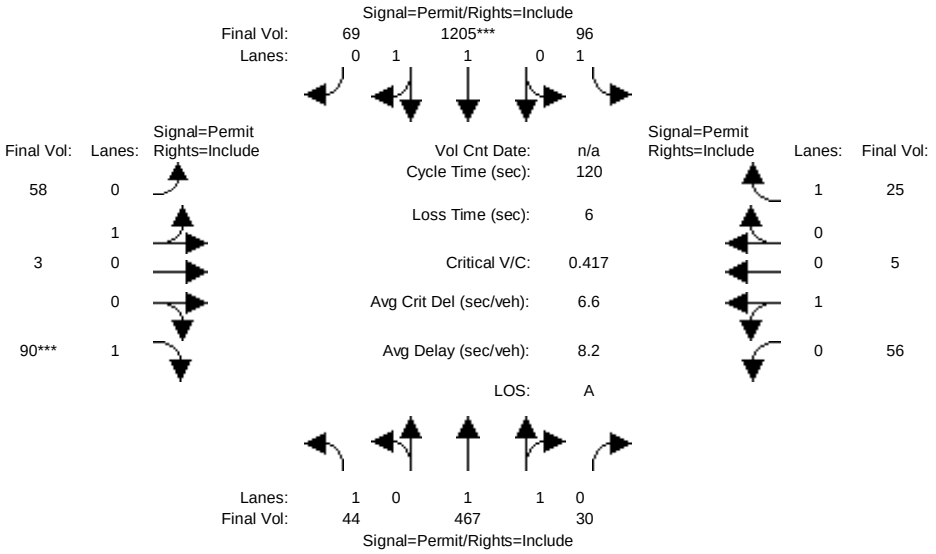
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #36: Miller Avenue/Phil Lane



Street Name:	Miller Avenue						Phil Lane					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	44	346	30	96	1074	69	58	3	90	56	5	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	44	346	30	96	1074	69	58	3	90	56	5	25
Added Vol:	0	121	0	0	131	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	467	30	96	1205	69	58	3	90	56	5	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:	44	467	30	96	1205	69	58	3	90	56	5	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	467	30	96	1205	69	58	3	90	56	5	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:	44	467	30	96	1205	69	58	3	90	56	5	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.88	0.12	1.00	1.89	0.11	0.95	0.05	1.00	0.92	0.08	1.00
Final Sat.:	1750	3476	223	1750	3499	200	1711	89	1750	1652	148	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.13	0.13	0.05	0.34	0.34	0.03	0.03	0.05	0.03	0.03	0.01
Crit Moves:					****				****			
Green Time:	99.2	99.2	99.2	99.2	99.2	99.2	14.8	14.8	14.8	14.8	14.8	14.8
Volume/Cap:	0.03	0.16	0.16	0.07	0.42	0.42	0.27	0.27	0.42	0.27	0.27	0.12
Uniform Del:	1.9	2.1	2.1	1.9	2.8	2.8	47.7	47.7	48.6	47.7	47.7	46.8
IncremntDel:	0.0	0.1	0.1	0.1	0.4	0.4	3.0	3.0	5.8	3.0	3.0	1.1
InitQueuDel:	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:	1.9	2.2	2.2	2.0	3.2	3.2	50.8	50.8	54.4	50.8	50.8	47.9
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:	1.9	2.2	2.2	2.0	3.2	3.2	50.8	50.8	54.4	50.8	50.8	47.9
LOS by Move:	A	A	A	A	A	A	D	D	D-	D	D	D
HCM2kAvgQ:	8	47	47	18	162	162	58	58	92	58	58	23

Note: Queue reported is the distance per lane in feet.

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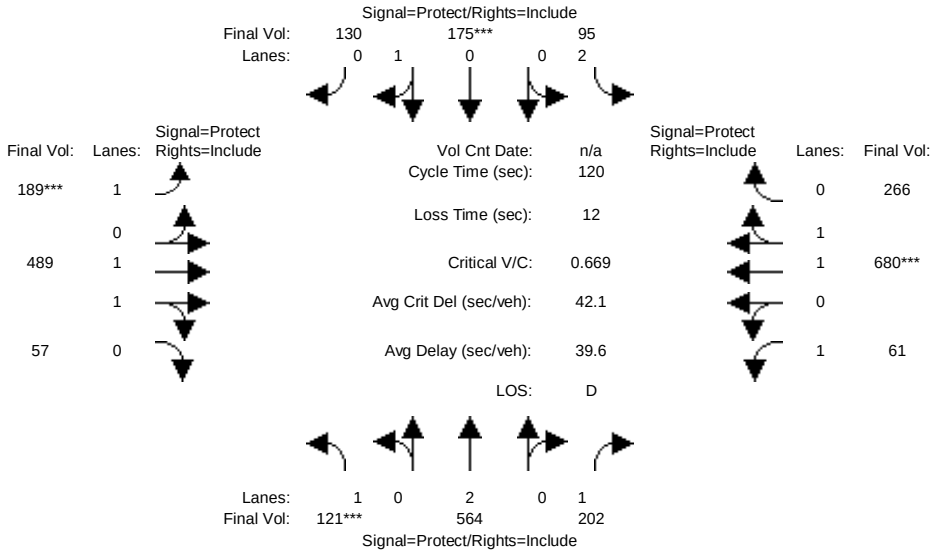
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #37: Miller Avenue/Bollinger Road



Street Name:	Miller Avenue						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	121	543	202	91	162	125	181	489	57	61	680	260
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	121	543	202	91	162	125	181	489	57	61	680	260
Added Vol:	0	21	0	4	13	5	8	0	0	0	0	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	121	564	202	95	175	130	189	489	57	61	680	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:	121	564	202	95	175	130	189	489	57	61	680	266
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	121	564	202	95	175	130	189	489	57	61	680	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:	121	564	202	95	175	130	189	489	57	61	680	266
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	2.00	1.00	2.00	0.57	0.43	1.00	1.79	0.21	1.00	1.42	0.58
Final Sat.:	1750	3800	1750	3150	1033	767	1750	3313	386	1750	2659	1040
Capacity Analysis Module:												
Vol/Sat:	0.07	0.15	0.12	0.03	0.17	0.17	0.11	0.15	0.15	0.03	0.26	0.26
Crit Moves:	****				****		****				****	
Green Time:	12.4	30.7	30.7	12.1	30.4	30.4	19.4	46.7	46.7	18.5	45.9	45.9
Volume/Cap:	0.67	0.58	0.45	0.30	0.67	0.67	0.67	0.38	0.38	0.23	0.67	0.67
Uniform Del:	51.8	39.0	37.6	50.0	40.3	40.3	47.3	26.2	26.2	44.5	30.8	30.8
IncremntDel:	18.0	2.5	3.3	2.4	7.6	7.6	11.9	0.8	0.8	1.9	2.5	2.5
InitQueuDel:	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:	69.8	41.5	40.8	52.5	47.9	47.9	59.2	27.0	27.0	46.4	33.3	33.3
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:	69.8	41.5	40.8	52.5	47.9	47.9	59.2	27.0	27.0	46.4	33.3	33.3
LOS by Move:	E	D	D	D-	D	D	E+	C	C	D	C-	C-
HCM2kAvgQ:	147	238	174	55	288	288	205	182	182	56	384	384

Note: Queue reported is the distance per lane in feet.

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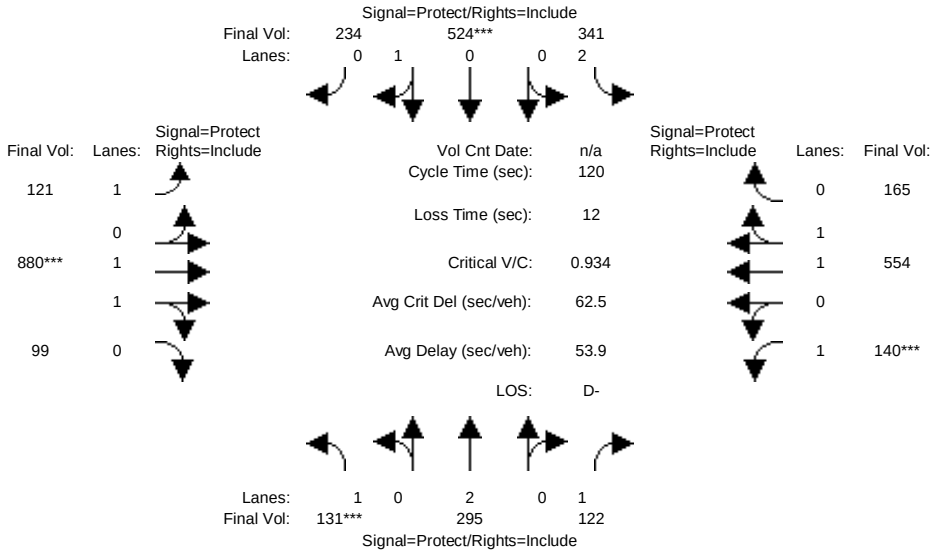
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #37: Miller Avenue/Bollinger Road



Street Name:	Miller Avenue						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	131	223	122	318	446	205	94	880	99	140	554	144
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	131	223	122	318	446	205	94	880	99	140	554	144
Added Vol:	0	72	0	23	78	29	27	0	0	0	0	21
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	131	295	122	341	524	234	121	880	99	140	554	165
User Adj:	1.00	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	295	122	341	524	234	121	880	99	140	554	165
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	131	295	122	341	524	234	121	880	99	140	554	165
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	295	122	341	524	234	121	880	99	140	554	165
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	2.00	1.00	2.00	0.69	0.31	1.00	1.79	0.21	1.00	1.53	0.47
Final Sat.:	1750	3800	1750	3150	1244	556	1750	3326	374	1750	2850	849
Capacity Analysis Module:												
Vol/Sat:	0.07	0.08	0.07	0.11	0.42	0.42	0.07	0.26	0.26	0.08	0.19	0.19
Crit Moves:	****				****			****			****	
Green Time:	9.6	27.7	27.7	36.0	54.1	54.1	11.6	34.0	34.0	10.3	32.7	32.7
Volume/Cap:	0.93	0.34	0.30	0.36	0.93	0.93	0.71	0.93	0.93	0.93	0.71	0.71
Uniform Del:	54.9	38.5	38.1	33.0	31.3	31.3	52.6	41.9	41.9	54.5	39.5	39.5
IncremntDel:	60.1	1.0	1.9	1.1	19.1	19.1	22.6	15.8	15.8	57.7	4.3	4.3
InitQueuDel:	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:	115.0	39.5	40.1	34.0	50.4	50.4	75.2	57.8	57.8	112.2	43.8	43.8
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:	115.0	39.5	40.1	34.0	50.4	50.4	75.2	57.8	57.8	112.2	43.8	43.8
LOS by Move:	F	D	D	C-	D	D	E-	E+	E+	F	D	D
HCM2kAvgQ:	209	115	102	148	809	809	154	559	559	219	334	334

Note: Queue reported is the distance per lane in feet.

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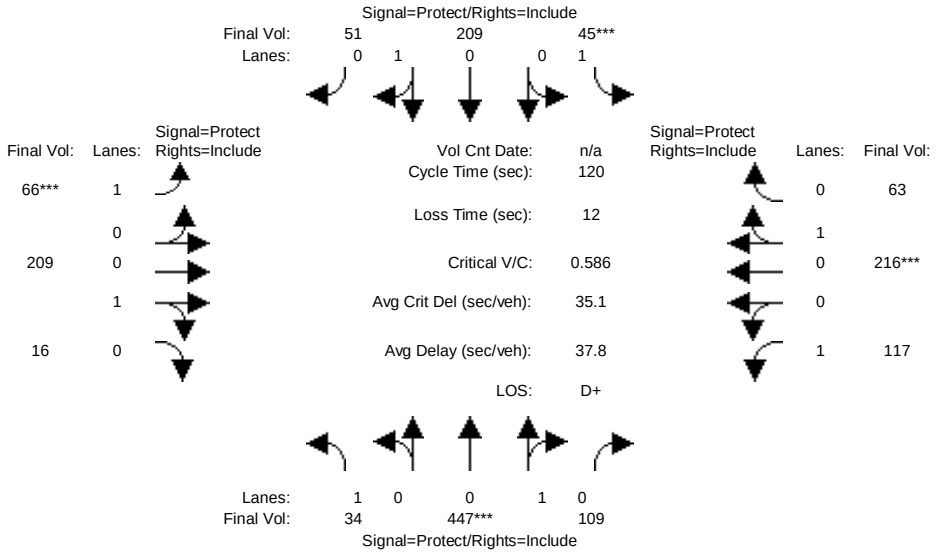
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #38: Miller Avenue/Rainbow Drive



Street Name:	Miller Avenue						Rainbow Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	34	427	109	44	197	51	66	209	16	117	216	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:	34	427	109	44	197	51	66	209	16	117	216	61
Added Vol:	0	20	0	1	12	0	0	0	0	0	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	447	109	45	209	51	66	209	16	117	216	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	447	109	45	209	51	66	209	16	117	216	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	447	109	45	209	51	66	209	16	117	216	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	447	109	45	209	51	66	209	16	117	216	63
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	0.80	0.20	1.00	0.80	0.20	1.00	0.93	0.07	1.00	0.77	0.23
Final Sat.:	1750	1447	353	1750	1447	353	1750	1672	128	1750	1394	406
Capacity Analysis Module:												
Vol/Sat:	0.02	0.31	0.31	0.03	0.14	0.14	0.04	0.13	0.13	0.07	0.16	0.16
Crit Moves:		****		****			****				****	
Green Time:	19.9	62.2	62.2	7.0	49.3	49.3	7.6	25.3	25.3	13.5	31.2	31.2
Volume/Cap:	0.12	0.60	0.60	0.44	0.35	0.35	0.60	0.59	0.59	0.59	0.60	0.60
Uniform Del:	42.6	20.1	20.1	54.6	24.3	24.3	54.7	42.7	42.7	50.6	38.9	38.9
IncremntDel:	0.8	2.8	2.8	13.2	1.3	1.3	21.4	6.7	6.7	12.5	5.5	5.5
InitQueuDel:	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:	43.4	22.9	22.9	67.8	25.7	25.7	76.2	49.4	49.4	63.1	44.4	44.4
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:	43.4	22.9	22.9	67.8	25.7	25.7	76.2	49.4	49.4	63.1	44.4	44.4
LOS by Move:	D	C+	C+	E	C	C	E-	D	D	E	D	D
HCM2kAvgQ:	29	377	377	57	171	171	89	213	213	133	250	250

Note: Queue reported is the distance per lane in feet.

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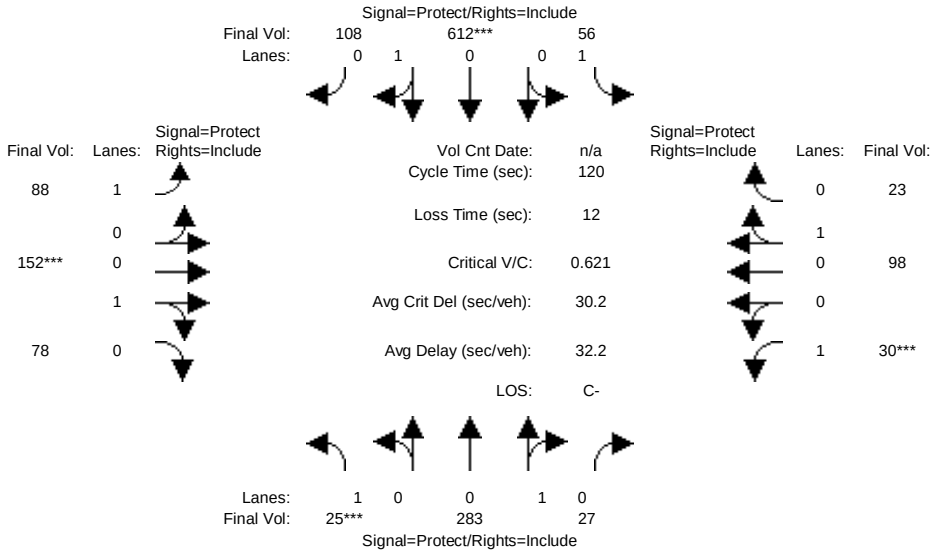
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #38: Miller Avenue/Rainbow Drive



Street Name:	Miller Avenue						Rainbow Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	25	216	27	50	539	108	88	152	78	30	98	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	216	27	50	539	108	88	152	78	30	98	18
Added Vol:	0	67	0	6	73	0	0	0	0	0	0	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	25	283	27	56	612	108	88	152	78	30	98	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:	25	283	27	56	612	108	88	152	78	30	98	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	283	27	56	612	108	88	152	78	30	98	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:	25	283	27	56	612	108	88	152	78	30	98	23
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	0.91	0.09	1.00	0.85	0.15	1.00	0.66	0.34	1.00	0.81	0.19
Final Sat.:	1750	1643	157	1750	1530	270	1750	1190	610	1750	1458	342
Capacity Analysis Module:												
Vol/Sat:	0.01	0.17	0.17	0.03	0.40	0.40	0.05	0.13	0.13	0.02	0.07	0.07
Crit Moves:	****				****			****			****	
Green Time:	7.0	58.4	58.4	19.8	71.2	71.2	12.3	22.8	22.8	7.0	17.5	17.5
Volume/Cap:	0.24	0.35	0.35	0.19	0.67	0.67	0.49	0.67	0.67	0.29	0.46	0.46
Uniform Del:	54.0	19.1	19.1	43.2	16.5	16.5	50.9	45.2	45.2	54.1	46.9	46.9
IncremntDel:	5.6	1.1	1.1	1.5	3.4	3.4	9.4	10.2	10.2	7.2	5.7	5.7
InitQueuDel:	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:	59.6	20.2	20.2	44.7	19.9	19.9	60.3	55.4	55.4	61.3	52.7	52.7
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:	59.6	20.2	20.2	44.7	19.9	19.9	60.3	55.4	55.4	61.3	52.7	52.7
LOS by Move:	E+	C+	C+	D	B-	B-	E	E+	E+	E	D-	D-
HCM2kAvgQ:	29	183	183	50	478	478	98	234	234	36	118	118

Note: Queue reported is the distance per lane in feet.

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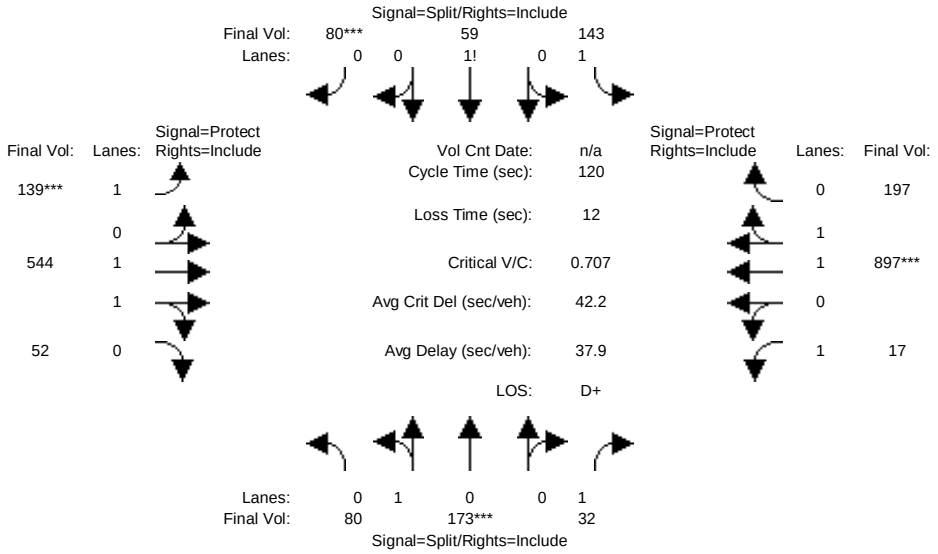
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #39: Miller Avenue/Prospect Road



Street Name:	Miller Avenue						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	80	168	32	140	56	74	130	544	52	17	897	192
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	80	168	32	140	56	74	130	544	52	17	897	192
Added Vol:	0	5	0	3	3	6	9	0	0	0	0	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	80	173	32	143	59	80	139	544	52	17	897	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:	80	173	32	143	59	80	139	544	52	17	897	197
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	173	32	143	59	80	139	544	52	17	897	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:	80	173	32	143	59	80	139	544	52	17	897	197
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	0.32	0.68	1.00	1.34	0.28	0.38	1.00	1.82	0.18	1.00	1.63	0.37
Final Sat.:	569	1231	1750	2344	490	665	1750	3377	323	1750	3033	666
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.02	0.06	0.12	0.12	0.08	0.16	0.16	0.01	0.30	0.30
Crit Moves:		****				****	****				****	
Green Time:	23.9	23.9	23.9	20.4	20.4	20.4	13.5	46.8	46.8	16.9	50.2	50.2
Volume/Cap:	0.71	0.71	0.09	0.36	0.71	0.71	0.71	0.41	0.41	0.07	0.71	0.71
Uniform Del:	44.8	44.8	39.2	44.0	47.0	47.0	51.3	26.6	26.6	44.7	28.8	28.8
IncremntDel:	11.2	11.2	0.5	1.3	10.1	10.1	19.2	0.9	0.9	0.5	2.7	2.7
InitQueuDel:	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:	56.0	56.0	39.7	45.3	57.1	57.1	70.6	27.5	27.5	45.2	31.6	31.6
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:	56.0	56.0	39.7	45.3	57.1	57.1	70.6	27.5	27.5	45.2	31.6	31.6
LOS by Move:	E+	E+	D	D	E+	E+	E	C	C	D	C	C
HCM2kAvgQ:	260	260	26	99	231	231	170	203	203	15	443	443

Note: Queue reported is the distance per lane in feet.

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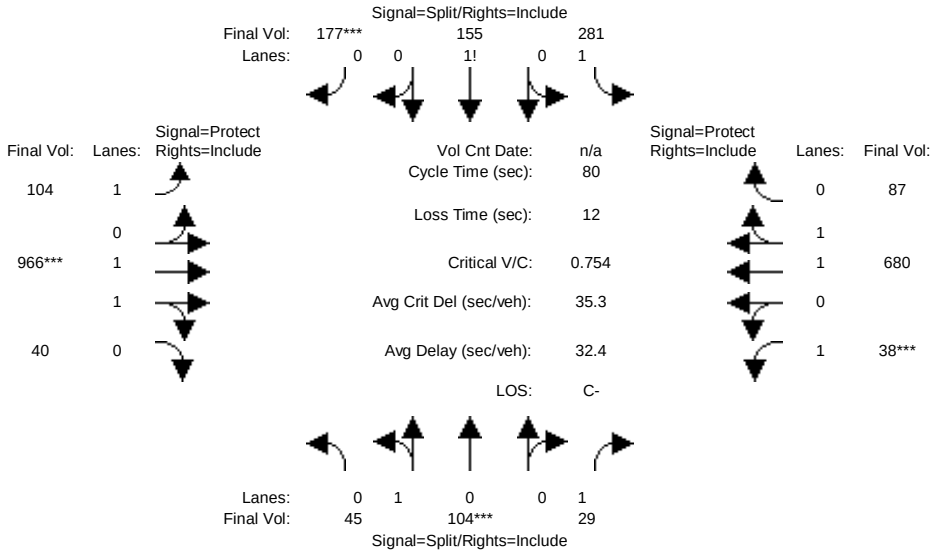
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #39: Miller Avenue/Prospect Road



Street Name:	Miller Avenue						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	45	88	29	261	138	142	72	966	40	38	680	68
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	88	29	261	138	142	72	966	40	38	680	68
Added Vol:	0	16	0	20	17	35	32	0	0	0	0	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	104	29	281	155	177	104	966	40	38	680	87
User Adj:	1.00	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:	45	104	29	281	155	177	104	966	40	38	680	87
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	104	29	281	155	177	104	966	40	38	680	87
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	45	104	29	281	155	177	104	966	40	38	680	87
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.95	0.95	0.92	0.97	0.95	0.92	0.98	0.95
Lanes:	0.30	0.70	1.00	1.30	0.33	0.37	1.00	1.92	0.08	1.00	1.77	0.23
Final Sat.:	544	1256	1750	2281	586	669	1750	3553	147	1750	3280	420
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.02	0.12	0.26	0.26	0.06	0.27	0.27	0.02	0.21	0.21
Crit Moves:		****				****		****		****		
Green Time:	10.0	10.0	10.0	25.2	25.2	25.2	9.7	25.8	25.8	7.0	23.1	23.1
Volume/Cap:	0.66	0.66	0.13	0.39	0.84	0.84	0.49	0.84	0.84	0.25	0.72	0.72
Uniform Del:	33.4	33.4	31.1	21.4	25.6	25.6	32.8	25.2	25.2	34.0	25.5	25.5
IncremntDel:	14.3	14.3	1.3	0.7	11.3	11.3	7.8	7.3	7.3	3.8	4.2	4.2
InitQueuDel:	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	32.4	22.2	36.9	36.9	40.6	32.4	32.4	37.9	29.7	29.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.7	47.7	32.4	22.2	36.9	36.9	40.6	32.4	32.4	37.9	29.7	29.7
LOS by Move:	D	D	C-	C+	D+	D+	D	C-	C-	D+	C	C
HCM2kAvgQ:	125	125	19	118	360	360	81	367	367	29	253	253

Note: Queue reported is the distance per lane in feet.

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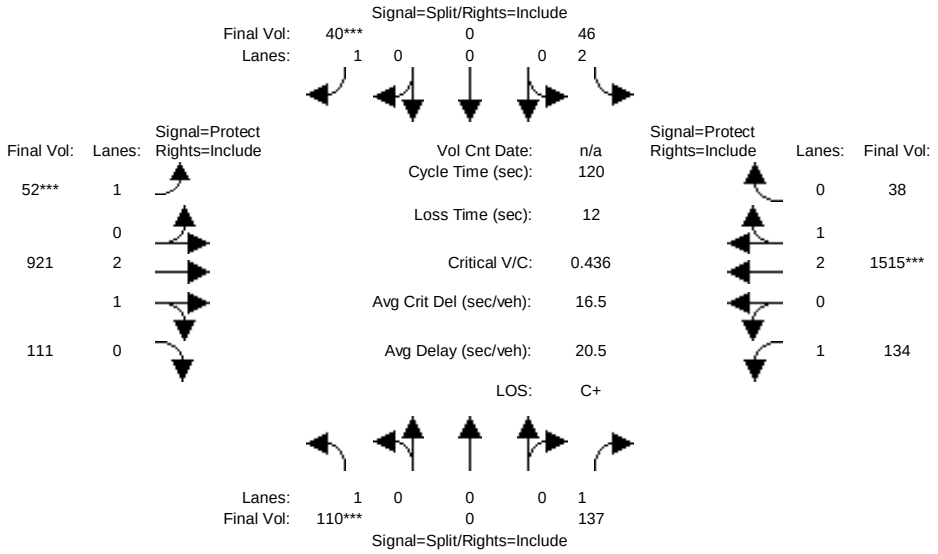
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #40: Stevens Creek Boulevard/Finch Avenue



Street Name:	Finch Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	0	10	0	0	0	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	110	0	137	46	0	40	52	879	111	134	1491	38
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	110	0	137	46	0	40	52	879	111	134	1491	38
Added Vol:	0	0	0	0	0	0	0	42	0	0	24	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	110	0	137	46	0	40	52	921	111	134	1515	38
User Adj:	1.00	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:	110	0	137	46	0	40	52	921	111	134	1515	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	110	0	137	46	0	40	52	921	111	134	1515	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	110	0	137	46	0	40	52	921	111	134	1515	38
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.99	0.95	0.92	0.98	0.95
Lanes:	1.00	0.00	1.00	2.00	0.00	1.00	1.00	2.67	0.33	1.00	2.92	0.08
Final Sat.:	1750	0	1750	3150	0	1750	1750	4997	602	1750	5463	137
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.08	0.01	0.00	0.02	0.03	0.18	0.18	0.08	0.28	0.28
Crit Moves:	****					****	****				****	
Green Time:	21.5	0.0	21.5	6.3	0.0	6.3	8.2	59.6	59.6	24.8	76.3	76.3
Volume/Cap:	0.35	0.00	0.44	0.28	0.00	0.44	0.44	0.37	0.37	0.37	0.44	0.44
Uniform Del:	43.1	0.0	43.8	54.7	0.0	55.1	53.7	18.6	18.6	40.9	11.0	11.0
IncremntDel:	3.1	0.0	4.4	4.2	0.0	14.4	11.2	0.4	0.4	2.9	0.4	0.4
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	46.2	0.0	48.2	58.8	0.0	69.5	64.9	19.0	19.0	43.8	11.4	11.4
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:	46.2	0.0	48.2	58.8	0.0	69.5	64.9	19.0	19.0	43.8	11.4	11.4
LOS by Move:	D	A	D	E+	A	E	E	B-	B-	D	B+	B+
HCM2kAvgQ:	100	0	129	32	0	53	63	195	195	119	241	241

Note: Queue reported is the distance per lane in feet.

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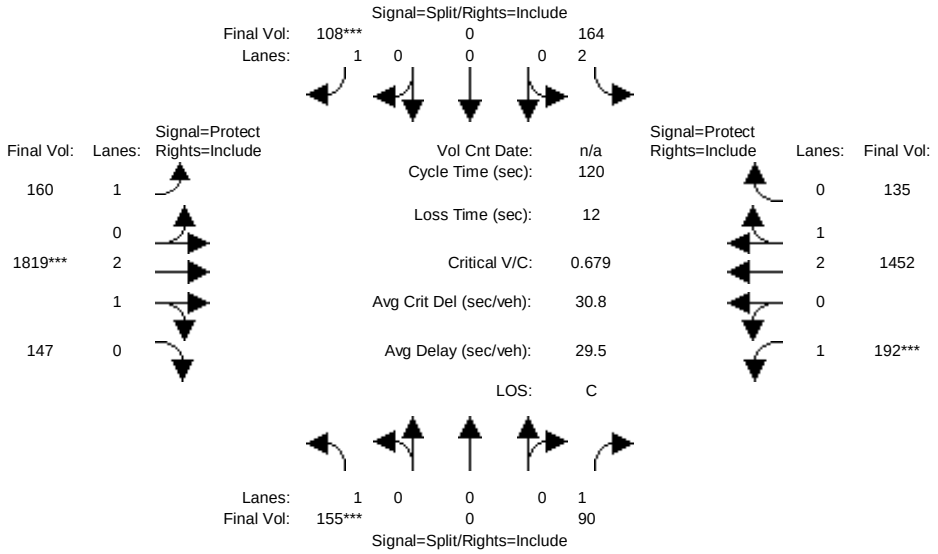
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #40: Stevens Creek Boulevard/Finch Avenue



Street Name:	Finch Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	0	10	0	0	0	7	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	155	0	90	164	0	108	160	1565	147	192	1372	135
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	155	0	90	164	0	108	160	1565	147	192	1372	135
Added Vol:	0	0	0	0	0	0	0	254	0	0	80	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	155	0	90	164	0	108	160	1819	147	192	1452	135
User Adj:	1.00	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:	155	0	90	164	0	108	160	1819	147	192	1452	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	155	0	90	164	0	108	160	1819	147	192	1452	135
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	155	0	90	164	0	108	160	1819	147	192	1452	135
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.99	0.95	0.92	0.99	0.95
Lanes:	1.00	0.00	1.00	2.00	0.00	1.00	1.00	2.77	0.23	1.00	2.74	0.26
Final Sat.:	1750	0	1750	3150	0	1750	1750	5181	419	1750	5123	476
Capacity Analysis Module:												
Vol/Sat:	0.09	0.00	0.05	0.05	0.00	0.06	0.09	0.35	0.35	0.11	0.28	0.28
Crit Moves:	****					****		****			****	
Green Time:	15.7	0.0	15.7	10.9	0.0	10.9	19.9	62.1	62.1	19.4	61.6	61.6
Volume/Cap:	0.68	0.00	0.39	0.57	0.00	0.68	0.55	0.68	0.68	0.68	0.55	0.55
Uniform Del:	49.8	0.0	47.8	52.3	0.0	52.9	46.0	21.6	21.6	47.4	19.8	19.8
IncremntDel:	15.1	0.0	5.0	8.1	0.0	20.9	7.4	1.3	1.3	12.4	0.8	0.8
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	64.9	0.0	52.9	60.4	0.0	73.8	53.4	22.9	22.9	59.8	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:	64.9	0.0	52.9	60.4	0.0	73.8	53.4	22.9	22.9	59.8	20.6	20.6
LOS by Move:	E	A	D-	E	A	E	D-	C+	C+	E+	C+	C+
HCM2kAvgQ:	179	0	90	109	0	137	162	464	464	210	335	335

Note: Queue reported is the distance per lane in feet.

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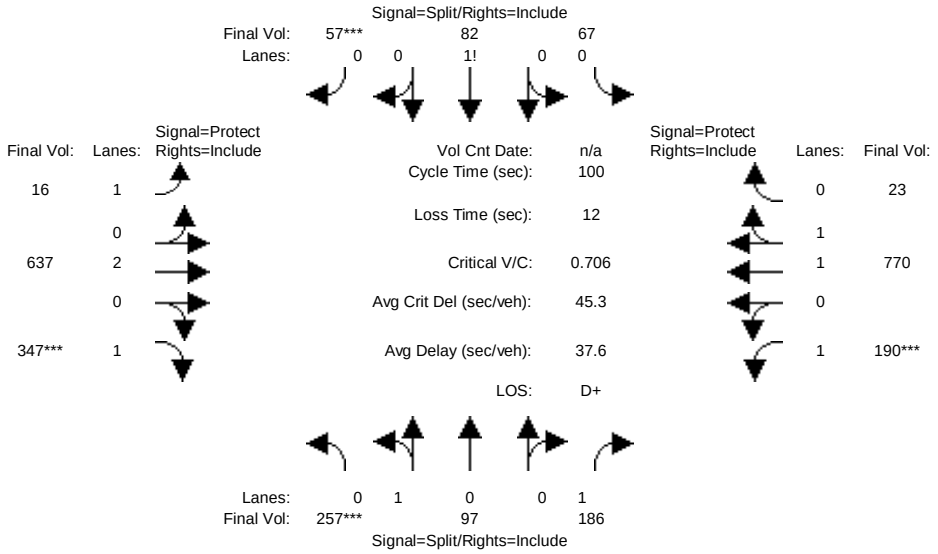
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #41: Tantau Avenue/Homestead Road



Street Name:	Tantau Avenu						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	249	97	186	67	82	57	16	618	347	190	723	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	249	97	186	67	82	57	16	618	347	190	723	23
Added Vol:	8	0	0	0	0	0	0	19	0	0	47	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	257	97	186	67	82	57	16	637	347	190	770	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:	257	97	186	67	82	57	16	637	347	190	770	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	257	97	186	67	82	57	16	637	347	190	770	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:	257	97	186	67	82	57	16	637	347	190	770	23
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	0.97	0.95
Lanes:	0.73	0.27	1.00	0.32	0.40	0.28	1.00	2.00	1.00	1.00	1.94	0.06
Final Sat.:	1307	493	1750	569	697	484	1750	3800	1750	1750	3593	107
Capacity Analysis Module:												
Vol/Sat:	0.20	0.20	0.11	0.12	0.12	0.12	0.01	0.17	0.20	0.11	0.21	0.21
Crit Moves:	****					****			****	****		
Green Time:	27.9	27.9	27.9	16.7	16.7	16.7	10.7	28.1	28.1	15.4	32.8	32.8
Volume/Cap:	0.71	0.71	0.38	0.71	0.71	0.71	0.09	0.60	0.71	0.71	0.65	0.65
Uniform Del:	32.4	32.4	29.1	39.3	39.3	39.3	40.2	31.1	32.3	40.2	28.8	28.8
IncremntDel:	8.1	8.1	2.3	13.4	13.4	13.4	0.9	2.5	8.3	14.5	2.8	2.8
InitQueuDel:	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:	40.5	40.5	31.4	52.8	52.8	52.8	41.1	33.5	40.5	54.6	31.5	31.5
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:	40.5	40.5	31.4	52.8	52.8	52.8	41.1	33.5	40.5	54.6	31.5	31.5
LOS by Move:	D	D	C	D-	D-	D-	D	C-	D	D-	C	C
HCM2kAvgQ:	287	287	128	198	198	198	13	226	289	187	286	286

Note: Queue reported is the distance per lane in feet.

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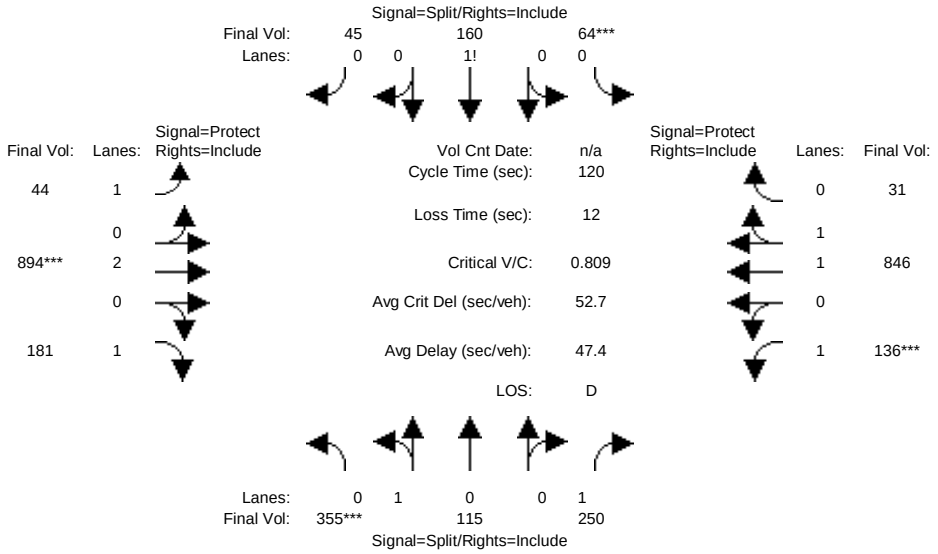
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #41: Tantau Avenue/Homestead Road



Street Name:	Tantau Avenu						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	328	115	250	64	160	45	44	778	181	136	685	31
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	328	115	250	64	160	45	44	778	181	136	685	31
Added Vol:	27	0	0	0	0	0	0	116	0	0	161	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	355	115	250	64	160	45	44	894	181	136	846	31
User Adj:	1.00	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:	355	115	250	64	160	45	44	894	181	136	846	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	355	115	250	64	160	45	44	894	181	136	846	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	355	115	250	64	160	45	44	894	181	136	846	31
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	0.97	0.95
Lanes:	0.76	0.24	1.00	0.24	0.59	0.17	1.00	2.00	1.00	1.00	1.93	0.07
Final Sat.:	1360	440	1750	416	1041	293	1750	3800	1750	1750	3569	131
Capacity Analysis Module:												
Vol/Sat:	0.26	0.26	0.14	0.15	0.15	0.15	0.03	0.24	0.10	0.08	0.24	0.24
Crit Moves:	****			****				****		****		
Green Time:	38.7	38.7	38.7	22.8	22.8	22.8	9.2	34.9	34.9	11.5	37.3	37.3
Volume/Cap:	0.81	0.81	0.44	0.81	0.81	0.81	0.33	0.81	0.36	0.81	0.76	0.76
Uniform Del:	37.2	37.2	32.1	46.5	46.5	46.5	52.5	39.4	33.6	53.2	37.4	37.4
IncremntDel:	11.5	11.5	2.5	18.8	18.8	18.8	6.5	6.4	1.9	32.8	4.8	4.8
InitQueuDel:	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:	48.8	48.8	34.6	65.3	65.3	65.3	59.0	45.9	35.6	85.9	42.2	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:	48.8	48.8	34.6	65.3	65.3	65.3	59.0	45.9	35.6	85.9	42.2	42.2
LOS by Move:	D	D	C-	E	E	E	E+	D	D+	F	D	D
HCM2kAvgQ:	465	465	198	311	311	311	50	430	143	186	409	409

Note: Queue reported is the distance per lane in feet.

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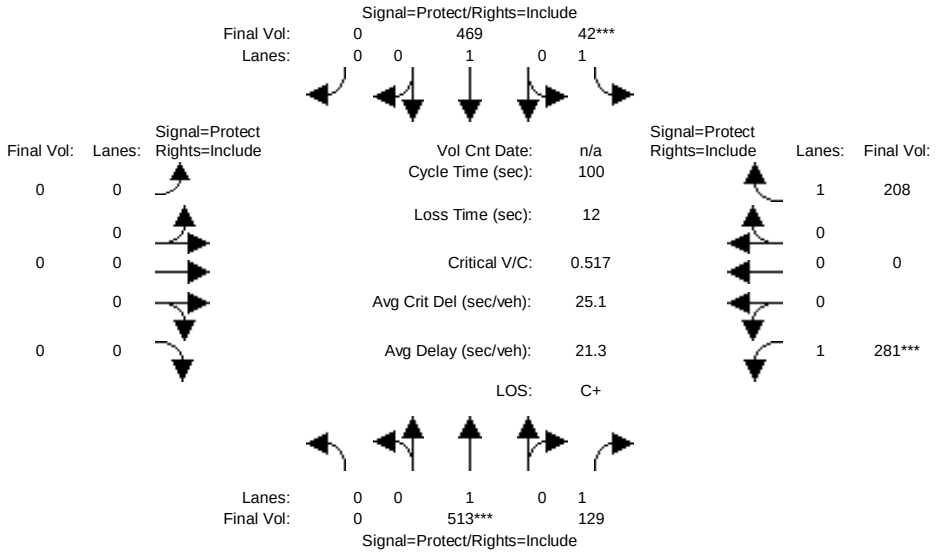
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #42: Tantau Avenue/Pruneridge Avenue



Street Name:	Tantau Avenu						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	513	124	42	469	0	0	0	0	281	0	200
Growth Adj:	1.00	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	513	124	42	469	0	0	0	0	281	0	200
Added Vol:	0	0	5	0	0	0	0	0	0	0	0	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	513	129	42	469	0	0	0	0	281	0	208
User Adj:	1.00	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	513	129	42	469	0	0	0	0	281	0	208
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	513	129	42	469	0	0	0	0	281	0	208
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	513	129	42	469	0	0	0	0	281	0	208
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
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	1750	1750	1900	0	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.07	0.02	0.25	0.00	0.00	0.00	0.00	0.16	0.00	0.12
Crit Moves:		****		****						****		
Green Time:	0.0	50.8	50.8	7.0	57.8	0.0	0.0	0.0	0.0	30.2	0.0	30.2
Volume/Cap:	0.00	0.53	0.15	0.34	0.43	0.00	0.00	0.00	0.00	0.53	0.00	0.39
Uniform Del:	0.0	16.6	13.1	44.3	11.8	0.0	0.0	0.0	0.0	29.0	0.0	27.6
IncremntDel:	0.0	2.1	0.3	7.5	1.2	0.0	0.0	0.0	0.0	3.8	0.0	2.2
InitQueuDel:	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	18.7	13.4	51.8	13.0	0.0	0.0	0.0	0.0	32.8	0.0	29.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	18.7	13.4	51.8	13.0	0.0	0.0	0.0	0.0	32.8	0.0	29.8
LOS by Move:	A	B-	B	D-	B	A	A	A	A	C-	A	C
HCM2kAvgQ:	0	268	56	43	201	0	0	0	0	204	0	140

Note: Queue reported is the distance per lane in feet.

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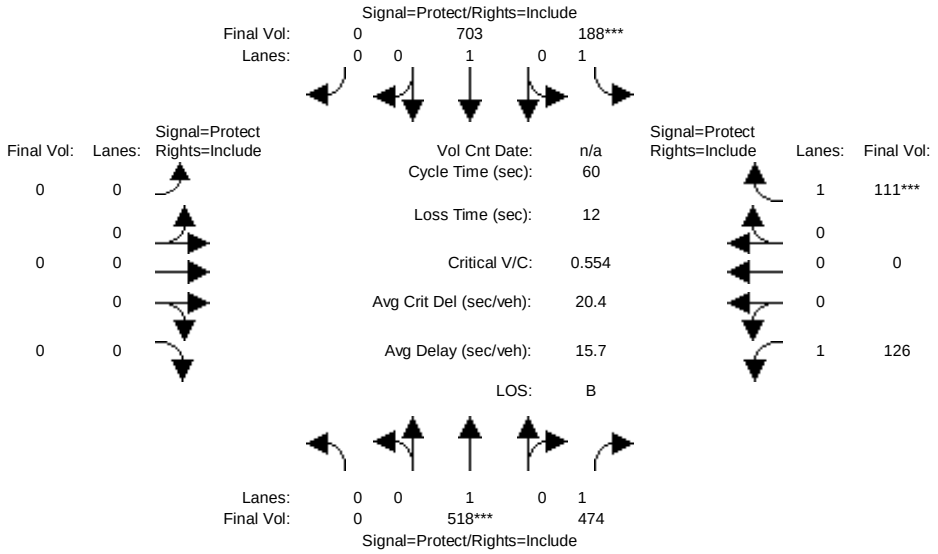
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #42: Tantau Avenue/Pruneridge Avenue



Street Name:	Tantau Avenu						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	518	445	188	703	0	0	0	0	126	0	84
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	518	445	188	703	0	0	0	0	126	0	84
Added Vol:	0	0	29	0	0	0	0	0	0	0	0	27
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	518	474	188	703	0	0	0	0	126	0	111
User Adj:	1.00	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	518	474	188	703	0	0	0	0	126	0	111
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	518	474	188	703	0	0	0	0	126	0	111
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	518	474	188	703	0	0	0	0	126	0	111
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
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	1750	1750	1900	0	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.27	0.11	0.37	0.00	0.00	0.00	0.00	0.07	0.00	0.06
Crit Moves:		****		****								****
Green Time:	0.0	27.3	27.3	10.7	38.0	0.0	0.0	0.0	0.0	10.0	0.0	10.0
Volume/Cap:	0.00	0.60	0.60	0.60	0.58	0.00	0.00	0.00	0.00	0.43	0.00	0.38
Uniform Del:	0.0	12.3	12.3	22.7	6.4	0.0	0.0	0.0	0.0	22.4	0.0	22.2
IncremntDel:	0.0	3.1	3.3	8.2	2.1	0.0	0.0	0.0	0.0	4.6	0.0	3.7
InitQueuDel:	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	15.4	15.5	30.9	8.5	0.0	0.0	0.0	0.0	27.1	0.0	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:	0.0	15.4	15.5	30.9	8.5	0.0	0.0	0.0	0.0	27.1	0.0	26.0
LOS by Move:	A	B	B	C	A	A	A	A	A	C	A	C
HCM2kAvgQ:	0	198	196	113	205	0	0	0	0	70	0	60

Note: Queue reported is the distance per lane in feet.

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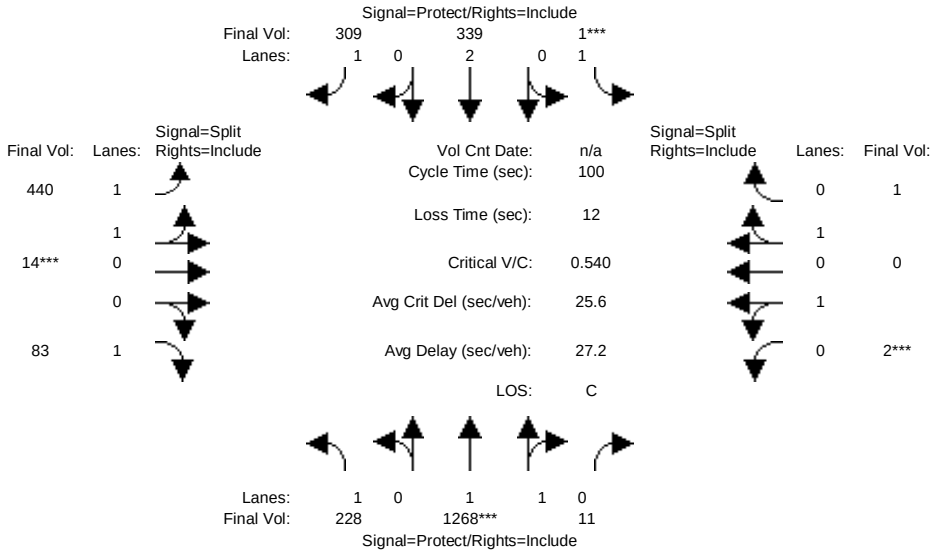
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #43: Tantau Avenue/Vallco Parkway



Street Name:	Tantau Avenu						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	228	1268	11	1	339	309	440	14	83	2	0	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	228	1268	11	1	339	309	440	14	83	2	0	1
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:	228	1268	11	1	339	309	440	14	83	2	0	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	228	1268	11	1	339	309	440	14	83	2	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	228	1268	11	1	339	309	440	14	83	2	0	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	228	1268	11	1	339	309	440	14	83	2	0	1
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	1.00	0.92	0.93	0.95	0.92	0.95	1.00	0.95
Lanes:	1.00	1.98	0.02	1.00	2.00	1.00	1.94	0.06	1.00	1.00	0.00	1.00
Final Sat.:	1750	3668	32	1750	3800	1750	3441	109	1750	1800	0	1800
Capacity Analysis Module:												
Vol/Sat:	0.13	0.35	0.35	0.00	0.09	0.18	0.13	0.13	0.05	0.00	0.00	0.00
Crit Moves:		****		****				****		****		
Green Time:	25.0	51.8	51.8	7.0	33.8	33.8	19.2	19.2	19.2	10.0	0.0	10.0
Volume/Cap:	0.52	0.67	0.67	0.01	0.26	0.52	0.67	0.67	0.25	0.01	0.00	0.01
Uniform Del:	32.4	17.7	17.7	43.3	24.0	26.6	37.5	37.5	34.3	40.5	0.0	40.5
IncremntDel:	4.4	1.9	1.9	0.1	0.5	3.3	5.1	5.1	1.8	0.1	0.0	0.0
InitQueuDel:	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	0.00	1.00
Delay/Veh:	36.8	19.6	19.6	43.4	24.5	29.8	42.6	42.6	36.0	40.6	0.0	40.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.8	19.6	19.6	43.4	24.5	29.8	42.6	42.6	36.0	40.6	0.0	40.5
LOS by Move:	D+	B-	B-	D	C	C	D	D	D+	D	A	D
HCM2kAvgQ:	175	384	384	1	94	214	201	201	61	2	0	1

Note: Queue reported is the distance per lane in feet.

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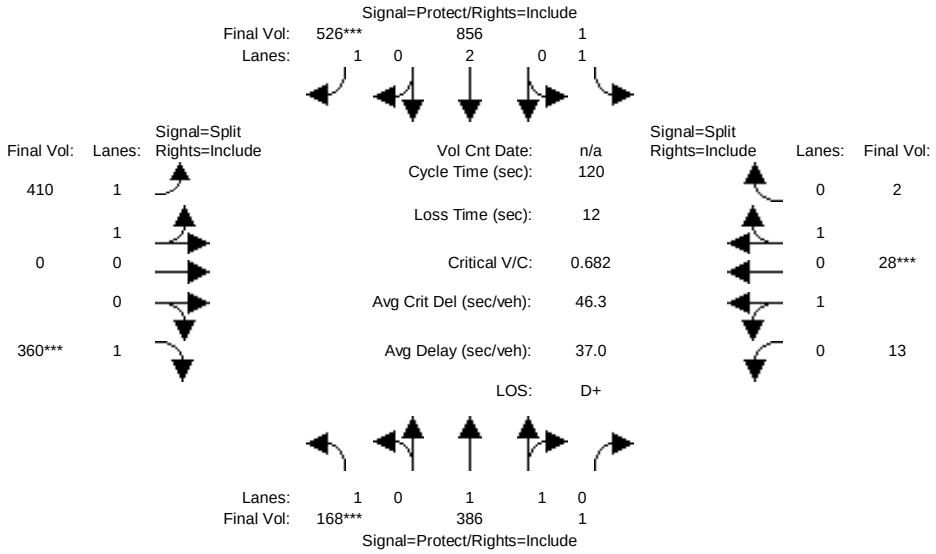
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #43: Tantau Avenue/Vallco Parkway



Street Name:	Tantau Avenu						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	168	386	1	1	856	526	410	0	360	13	28	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	168	386	1	1	856	526	410	0	360	13	28	2
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:	168	386	1	1	856	526	410	0	360	13	28	2
User Adj:	1.00	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:	168	386	1	1	856	526	410	0	360	13	28	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	168	386	1	1	856	526	410	0	360	13	28	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	168	386	1	1	856	526	410	0	360	13	28	2
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	1.00	0.92	0.93	1.00	0.92	0.95	0.95	0.95
Lanes:	1.00	1.99	0.01	1.00	2.00	1.00	2.00	0.00	1.00	0.60	1.31	0.09
Final Sat.:	1750	3690	10	1750	3800	1750	3550	0	1750	1088	2344	167
Capacity Analysis Module:												
Vol/Sat:	0.10	0.10	0.10	0.00	0.23	0.30	0.12	0.00	0.21	0.01	0.01	0.01
Crit Moves:	****					****			****		****	
Green Time:	15.6	41.4	41.4	23.1	48.9	48.9	33.5	0.0	33.5	10.0	10.0	10.0
Volume/Cap:	0.74	0.30	0.30	0.00	0.55	0.74	0.41	0.00	0.74	0.14	0.14	0.14
Uniform Del:	50.2	28.7	28.7	39.1	27.2	30.1	35.3	0.0	39.3	51.0	51.0	51.0
IncremntDel:	19.1	0.6	0.6	0.0	1.4	6.7	1.3	0.0	9.6	1.0	1.0	1.0
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00
Delay/Veh:	69.3	29.3	29.3	39.2	28.6	36.8	36.5	0.0	48.9	52.0	52.0	52.0
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:	69.3	29.3	29.3	39.2	28.6	36.8	36.5	0.0	48.9	52.0	52.0	52.0
LOS by Move:	E	C	C	D	C	D+	D+	A	D	D-	D-	D-
HCM2kAvgQ:	201	132	132	1	303	467	166	0	357	22	22	22

Note: Queue reported is the distance per lane in feet.

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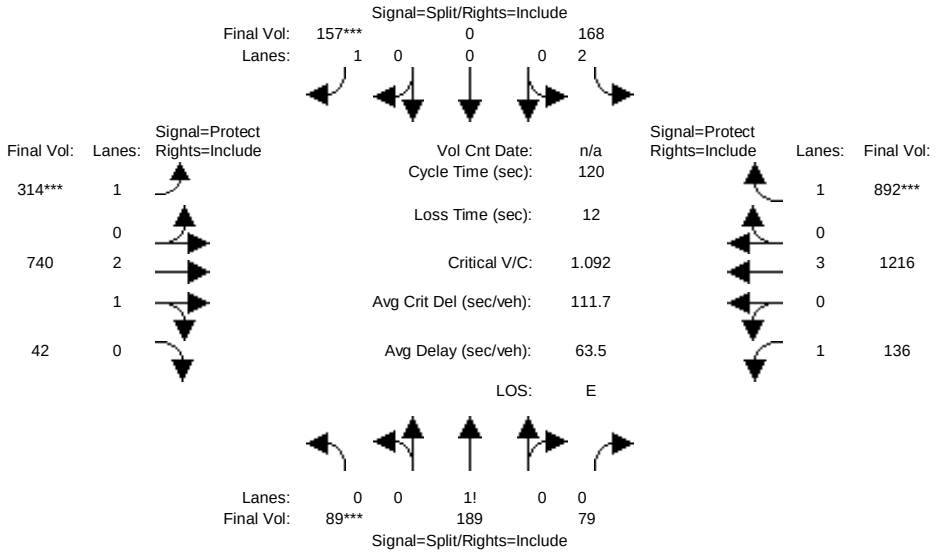
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #44: Tantau Avenue/Stevens Creek Boulevard



Street Name:	Tantau Avenu						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	89	189	79	168	0	157	314	740	42	136	1216	892
Growth Adj:	1.00	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	189	79	168	0	157	314	740	42	136	1216	892
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	189	79	168	0	157	314	740	42	136	1216	892
User Adj:	1.00	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	189	79	168	0	157	314	740	42	136	1216	892
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	189	79	168	0	157	314	740	42	136	1216	892
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	189	79	168	0	157	314	740	42	136	1216	892
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.83	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92
Lanes:	0.25	0.53	0.22	2.00	0.00	1.00	1.00	2.83	0.17	1.00	3.00	1.00
Final Sat.:	436	926	387	3150	0	1750	1750	5299	301	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.20	0.20	0.20	0.05	0.00	0.09	0.18	0.14	0.14	0.08	0.21	0.51
Crit Moves:	****					****	****					****
Green Time:	22.4	22.4	22.4	10.0	0.0	10.0	19.7	48.6	48.6	27.0	55.9	55.9
Volume/Cap:	1.09	1.09	1.09	0.64	0.00	1.08	1.09	0.34	0.34	0.34	0.46	1.09
Uniform Del:	48.8	48.8	48.8	53.3	0.0	55.0	50.2	24.7	24.7	39.0	21.7	32.0
IncremntDel:	77.3	77.3	77.3	11.4	0.0	96.5	80.5	0.4	0.4	2.4	0.6	60.2
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	126.1	126	126.1	64.6	0.0	151.5	130.6	25.1	25.1	41.4	22.3	92.2
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:	126.1	126	126.1	64.6	0.0	151.5	130.6	25.1	25.1	41.4	22.3	92.2
LOS by Move:	F	F	F	E	A	F	F	C	C	D	C+	F
HCM2kAvgQ:	556	556	556	119	0	278	499	166	166	116	250	1241

Note: Queue reported is the distance per lane in feet.

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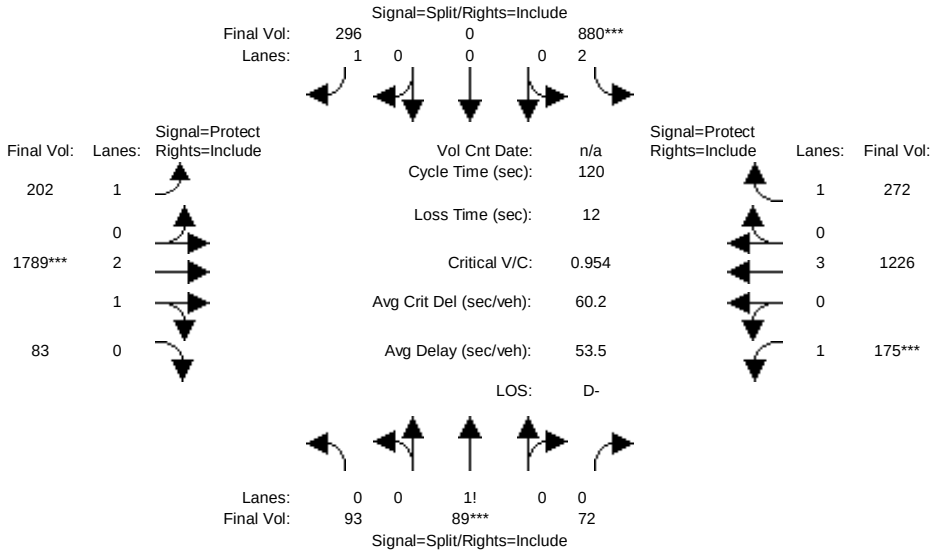
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #44: Tantau Avenue/Stevens Creek Boulevard



Street Name:	Tantau Avenu						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	93	89	72	880	0	296	202	1789	83	175	1226	272
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	93	89	72	880	0	296	202	1789	83	175	1226	272
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:	93	89	72	880	0	296	202	1789	83	175	1226	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:	93	89	72	880	0	296	202	1789	83	175	1226	272
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	93	89	72	880	0	296	202	1789	83	175	1226	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:	93	89	72	880	0	296	202	1789	83	175	1226	272
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.83	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92
Lanes:	0.37	0.35	0.28	2.00	0.00	1.00	1.00	2.86	0.14	1.00	3.00	1.00
Final Sat.:	641	613	496	3150	0	1750	1750	5351	248	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.15	0.15	0.15	0.28	0.00	0.17	0.12	0.33	0.33	0.10	0.22	0.16
Crit Moves:		****		****				****		****		
Green Time:	18.3	18.3	18.3	35.1	0.0	35.1	19.1	42.0	42.0	12.6	35.5	35.5
Volume/Cap:	0.95	0.95	0.95	0.95	0.00	0.58	0.73	0.95	0.95	0.95	0.73	0.52
Uniform Del:	50.5	50.5	50.5	41.6	0.0	36.1	48.0	38.0	38.0	53.4	37.9	35.2
IncremntDel:	44.6	44.6	44.6	20.4	0.0	4.7	15.3	12.1	12.1	55.4	2.8	3.8
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	95.0	95.0	95.0	62.1	0.0	40.8	63.3	50.1	50.1	108.9	40.6	39.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	95.0	95.0	95.0	62.1	0.0	40.8	63.3	50.1	50.1	108.9	40.6	39.0
LOS by Move:	F	F	F	E	A	D	E	D	D	F	D	D+
HCM2kAvgQ:	356	356	356	602	0	261	228	697	697	266	364	232

Note: Queue reported is the distance per lane in feet.

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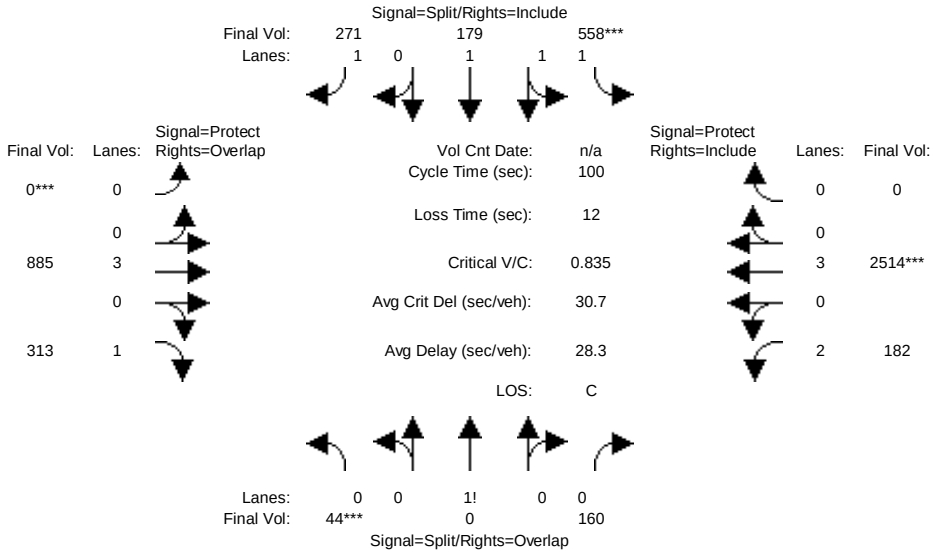
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #45: Stevens Creek Boulevard/Calvert Drive/I-280 Ramps



Street Name:	Stevens Creek Boulevard						Calvert Drive/I-280 Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	0	10	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	44	0	160	558	179	271	0	861	266	182	2443	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:	44	0	160	558	179	271	0	861	266	182	2443	0
Added Vol:	0	0	0	0	0	0	0	24	47	0	71	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	0	160	558	179	271	0	885	313	182	2514	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:	44	0	160	558	179	271	0	885	313	182	2514	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	0	160	558	179	271	0	885	313	182	2514	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:	44	0	160	558	179	271	0	885	313	182	2514	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.22	0.00	0.78	2.00	1.00	1.00	0.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:	377	0	1373	3150	1900	1750	0	5700	1750	3150	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.12	0.00	0.12	0.18	0.09	0.15	0.00	0.16	0.18	0.06	0.44	0.00
Crit Moves:	****			****			****				****	
Green Time:	14.0	0.0	30.4	21.2	21.2	21.2	0.0	36.4	50.4	16.4	52.8	0.0
Volume/Cap:	0.83	0.00	0.38	0.83	0.44	0.73	0.00	0.43	0.36	0.35	0.83	0.00
Uniform Del:	41.9	0.0	27.4	37.7	34.3	36.7	0.0	23.9	15.0	37.1	19.9	0.0
IncremntDel:	27.3	0.0	2.1	9.2	0.9	11.9	0.0	0.6	1.1	1.9	2.9	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	69.2	0.0	29.5	46.9	35.1	48.7	0.0	24.6	16.1	39.0	22.8	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:	69.2	0.0	29.5	46.9	35.1	48.7	0.0	24.6	16.1	39.0	22.8	0.0
LOS by Move:	E	A	C	D	D+	D	A	C	B	D+	C+	A
HCM2kAvgQ:	230	0	137	312	128	248	0	173	156	81	596	0

Note: Queue reported is the distance per lane in feet.

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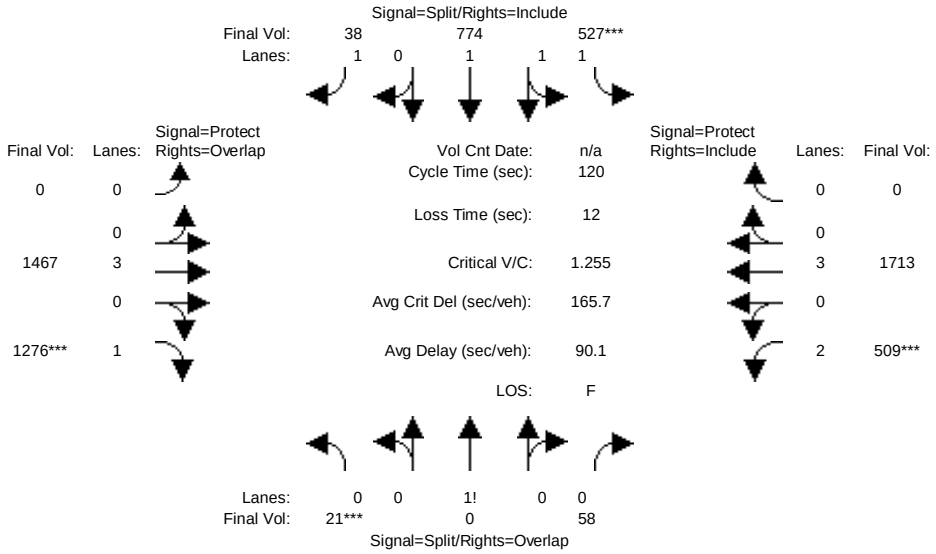
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #45: Stevens Creek Boulevard/Calvert Drive/I-280 Ramps



Street Name:	Stevens Creek Boulevard						Calvert Drive/I-280 Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	0	10	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	21	0	58	527	774	38	0	1322	993	509	1472	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:	21	0	58	527	774	38	0	1322	993	509	1472	0
Added Vol:	0	0	0	0	0	0	0	145	283	0	241	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	0	58	527	774	38	0	1467	1276	509	1713	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:	21	0	58	527	774	38	0	1467	1276	509	1713	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	0	58	527	774	38	0	1467	1276	509	1713	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:	21	0	58	527	774	38	0	1467	1276	509	1713	0
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	0.98	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.27	0.00	0.73	1.25	1.75	1.00	0.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:	465	0	1285	2206	3240	1750	0	5700	1750	3150	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.00	0.05	0.24	0.24	0.02	0.00	0.26	0.73	0.16	0.30	0.00
Crit Moves:	****			****					****	****		
Green Time:	10.0	0.0	25.1	22.4	22.4	22.4	0.0	60.5	70.5	15.1	75.6	0.0
Volume/Cap:	0.54	0.00	0.22	1.28	1.28	0.12	0.00	0.51	1.24	1.28	0.48	0.00
Uniform Del:	52.8	0.0	39.3	48.8	48.8	40.6	0.0	19.9	24.8	52.4	11.7	0.0
IncremntDel:	13.7	0.0	1.3	134.1	134	0.7	0.0	0.7	116.9	144.6	0.5	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	66.5	0.0	40.6	183.0	183	41.3	0.0	20.5	141.7	197.0	12.2	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:	66.5	0.0	40.6	183.0	183	41.3	0.0	20.5	141.7	197.0	12.2	0.0
LOS by Move:	E	A	D	F	F	D	A	C+	F	F	B	A
HCM2kAvgQ:	95	0	66	778	778	32	0	298	2109	548	274	0

Note: Queue reported is the distance per lane in feet.

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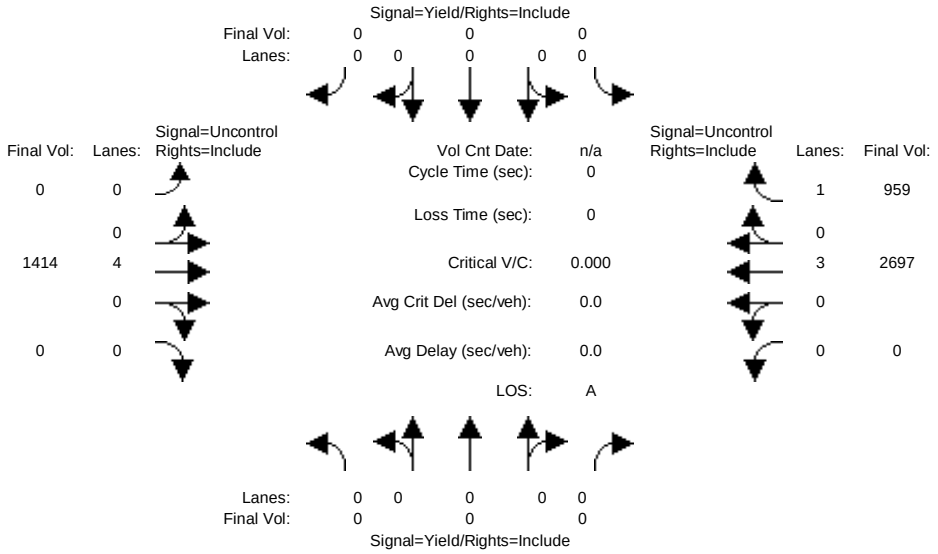
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #46: Stevens Creek Boulevard/I-280 Ramps East




```
Street Name:     Stevens Creek Boulevard              I-280 Ramps East
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0     0    0     0     0 1390     0     0 2626   959
Growth Adj:  1.00 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     0    0     0     0 1390     0     0 2626   959
Added Vol:      0    0     0     0    0     0     0   24     0     0   71     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     0     0    0     0     0 1414     0     0 2697   959
User Adj:    1.00 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     0    0     0     0 1414     0     0 2697   959
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0     0    0     0     0 1414     0     0 2697   959
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         *                *                *                *
Note: Queue reported is the distance per lane in feet.
                  Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #46 Stevens Creek Boulevard/I-280 Ramps East
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 0			0 0 4 0 0			0 0 3 0 1		
Initial Vol:	0	0	0	0	0	0	0	1414	0	0	2697	959
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #46 Stevens Creek Boulevard/I-280 Ramps East

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 0			0 0 4 0 0			0 0 3 0 1		
Initial Vol:	0	0	0	0	0	0	0	1414	0	0	2697	959

Major Street Volume: 5070
Minor Approach Volume: 0
Minor Approach Volume Threshold: -274 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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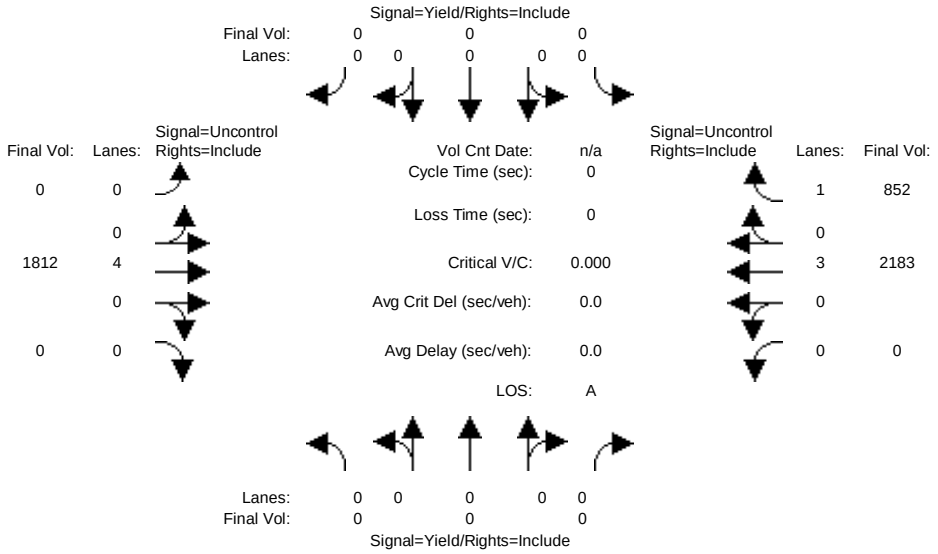
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #46: Stevens Creek Boulevard/I-280 Ramps East




```
Street Name:     Stevens Creek Boulevard              I-280 Ramps East
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0     0    0     0     0 1667     0     0 1942   852
Growth Adj:  1.00 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     0    0     0     0 1667     0     0 1942   852
Added Vol:      0    0     0     0    0     0     0  145     0     0  241     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     0     0    0     0     0 1812     0     0 2183   852
User Adj:    1.00 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     0    0     0     0 1812     0     0 2183   852
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0     0    0     0     0 1812     0     0 2183   852
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         *                *                *                *
Note: Queue reported is the distance per lane in feet.
                  Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #46 Stevens Creek Boulevard/I-280 Ramps East
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 0			0 0 4 0 0			0 0 3 0 1		
Initial Vol:	0	0	0	0	0	0	0	1812	0	0	2183	852
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #46 Stevens Creek Boulevard/I-280 Ramps East

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 0			0 0 4 0 0			0 0 3 0 1		
Initial Vol:	0	0	0	0	0	0	0	1812	0	0	2183	852

Major Street Volume: 4847
Minor Approach Volume: 0
Minor Approach Volume Threshold: -259 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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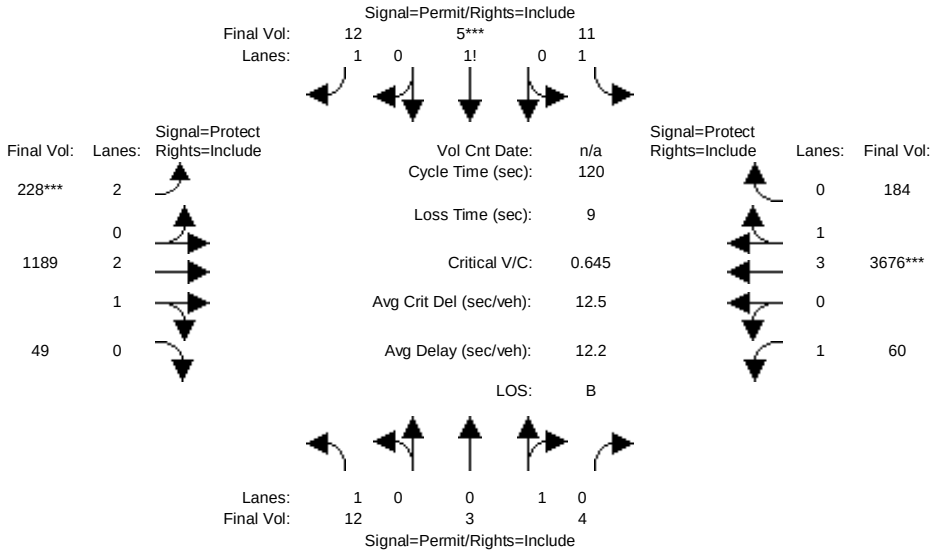
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #47: Stevens Creek Boulevard/Agilent Driveway



Street Name:	Stevens Creek Boulevard						Agilent Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	12	3	4	11	5	12	228	1165	49	60	3605	184
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	3	4	11	5	12	228	1165	49	60	3605	184
Added Vol:	0	0	0	0	0	0	0	24	0	0	71	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	3	4	11	5	12	228	1189	49	60	3676	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:	12	3	4	11	5	12	228	1189	49	60	3676	184
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	3	4	11	5	12	228	1189	49	60	3676	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:	12	3	4	11	5	12	228	1189	49	60	3676	184
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.92	0.92	0.83	0.98	0.95	0.92	0.99	0.95
Lanes:	1.00	0.43	0.57	1.33	0.30	1.37	2.00	2.88	0.12	1.00	3.80	0.20
Final Sat.:	1750	771	1029	2333	530	2386	3150	5378	222	1750	7142	357
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.00	0.00	0.01	0.01	0.07	0.22	0.22	0.03	0.51	0.51
Crit Moves:					****		****				****	
Green Time:	10.0	10.0	10.0	10.0	10.0	10.0	12.5	79.9	79.9	21.1	88.5	88.5
Volume/Cap:	0.08	0.05	0.05	0.06	0.11	0.06	0.70	0.33	0.33	0.20	0.70	0.70
Uniform Del:	50.8	50.6	50.6	50.7	50.9	50.7	52.0	8.6	8.6	42.2	8.5	8.5
IncremntDel:	1.1	0.6	0.6	0.2	0.9	0.2	11.7	0.2	0.2	1.4	0.7	0.7
InitQueuDel:	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:	51.9	51.2	51.2	50.9	51.8	50.9	63.6	8.8	8.8	43.6	9.2	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:	51.9	51.2	51.2	50.9	51.8	50.9	63.6	8.8	8.8	43.6	9.2	9.2
LOS by Move:	D-	D-	D-	D	D-	D	E	A	A	D	A	A
HCM2kAvgQ:	12	7	7	8	17	9	157	162	162	52	495	495

Note: Queue reported is the distance per lane in feet.

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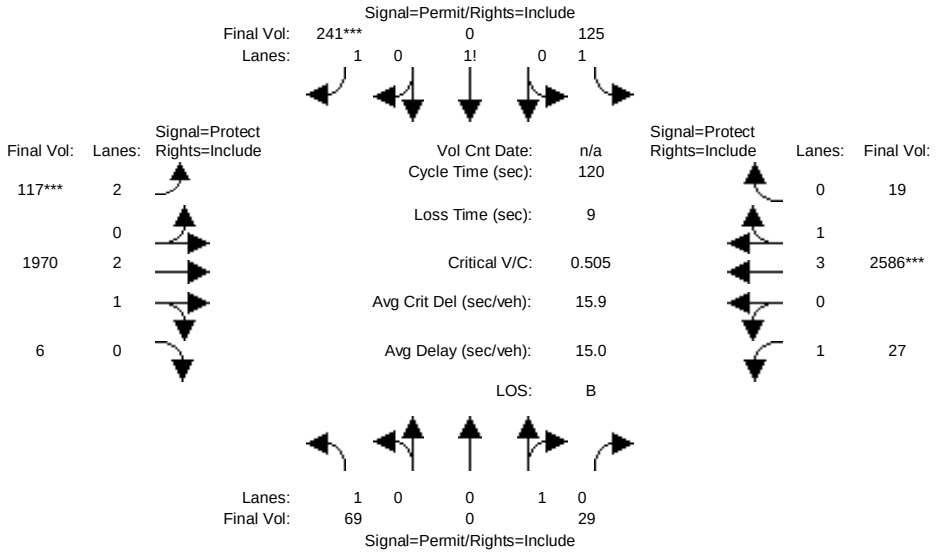
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #47: Stevens Creek Boulevard/Agilent Driveway



Street Name:	Stevens Creek Boulevard						Agilent Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	69	0	29	125	0	241	117	1825	6	27	2345	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	69	0	29	125	0	241	117	1825	6	27	2345	19
Added Vol:	0	0	0	0	0	0	0	145	0	0	241	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	69	0	29	125	0	241	117	1970	6	27	2586	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:	69	0	29	125	0	241	117	1970	6	27	2586	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	69	0	29	125	0	241	117	1970	6	27	2586	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:	69	0	29	125	0	241	117	1970	6	27	2586	19
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.95	0.92	1.00	0.92	0.83	0.98	0.95	0.92	0.99	0.95
Lanes:	1.00	0.00	1.00	1.34	0.00	1.66	2.00	2.99	0.01	1.00	3.97	0.03
Final Sat.:	1750	0	1800	2348	0	2902	3150	5583	17	1750	7445	55
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.02	0.05	0.00	0.08	0.04	0.35	0.35	0.02	0.35	0.35
Crit Moves:						****	****				****	
Green Time:	19.7	0.0	19.7	19.7	0.0	19.7	8.8	78.3	78.3	13.0	82.5	82.5
Volume/Cap:	0.24	0.00	0.10	0.32	0.00	0.51	0.51	0.54	0.54	0.14	0.51	0.51
Uniform Del:	43.6	0.0	42.6	44.3	0.0	45.7	53.5	11.2	11.2	48.5	9.0	9.0
IncremntDel:	2.0	0.0	0.7	0.8	0.0	2.5	7.7	0.6	0.6	1.6	0.4	0.4
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	45.6	0.0	43.3	45.0	0.0	48.2	61.2	11.8	11.8	50.1	9.4	9.4
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:	45.6	0.0	43.3	45.0	0.0	48.2	61.2	11.8	11.8	50.1	9.4	9.4
LOS by Move:	D	A	D	D	A	D	E	B+	B+	D	A	A
HCM2kAvgQ:	62	0	24	86	0	144	80	329	329	26	289	289

Note: Queue reported is the distance per lane in feet.

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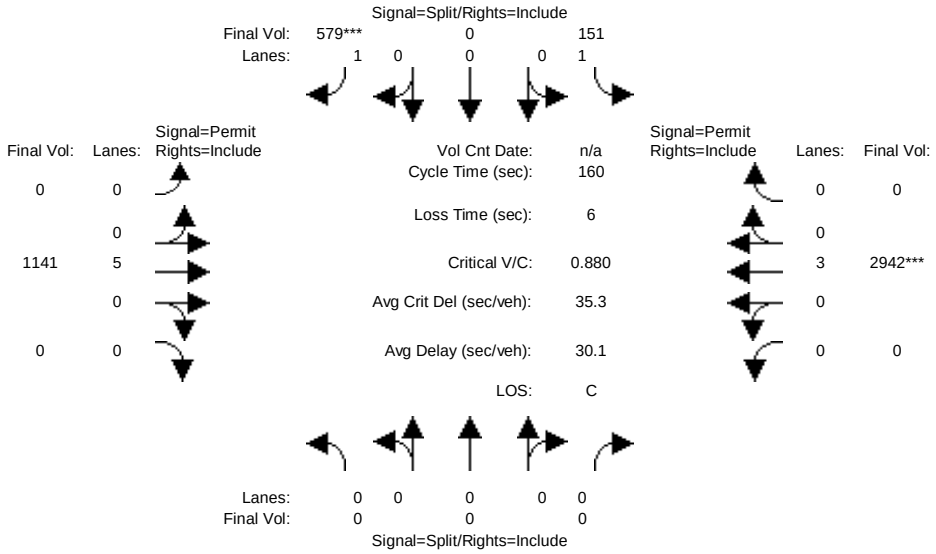
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #48: Stevens Creek Boulevard/Lawrence Expressway Ramps West



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps West					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	20	0	20	0	100	0	0	100	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	151	0	579	0	1117	0	0	2871	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	151	0	579	0	1117	0	0	2871	0
Added Vol:	0	0	0	0	0	0	0	24	0	0	71	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	151	0	579	0	1141	0	0	2942	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	0	0	151	0	579	0	1141	0	0	2942	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	151	0	579	0	1141	0	0	2942	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	151	0	579	0	1141	0	0	2942	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	5.00	0.00	0.00	3.00	0.00
Final Sat.:	0	0	0	1750	0	1750	0	9500	0	0	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.09	0.00	0.33	0.00	0.12	0.00	0.00	0.52	0.00
Crit Moves:						****					****	
Green Time:	0.0	0.0	0.0	54.0	0.0	54.0	0.0	100	0.0	0.0	100	0.0
Volume/Cap:	0.00	0.00	0.00	0.26	0.00	0.98	0.00	0.19	0.00	0.00	0.83	0.00
Uniform Del:	0.0	0.0	0.0	38.4	0.0	52.5	0.0	12.8	0.0	0.0	23.3	0.0
IncremntDel:	0.0	0.0	0.0	1.0	0.0	32.5	0.0	0.1	0.0	0.0	2.3	0.0
InitQueuDel:	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	39.5	0.0	85.0	0.0	12.9	0.0	0.0	25.6	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	39.5	0.0	85.0	0.0	12.9	0.0	0.0	25.6	0.0
LOS by Move:	A	A	A	D	A	F	A	B	A	A	C	A
HCM2kAvgQ:	0	0	0	141	0	894	0	114	0	0	973	0

Note: Queue reported is the distance per lane in feet.

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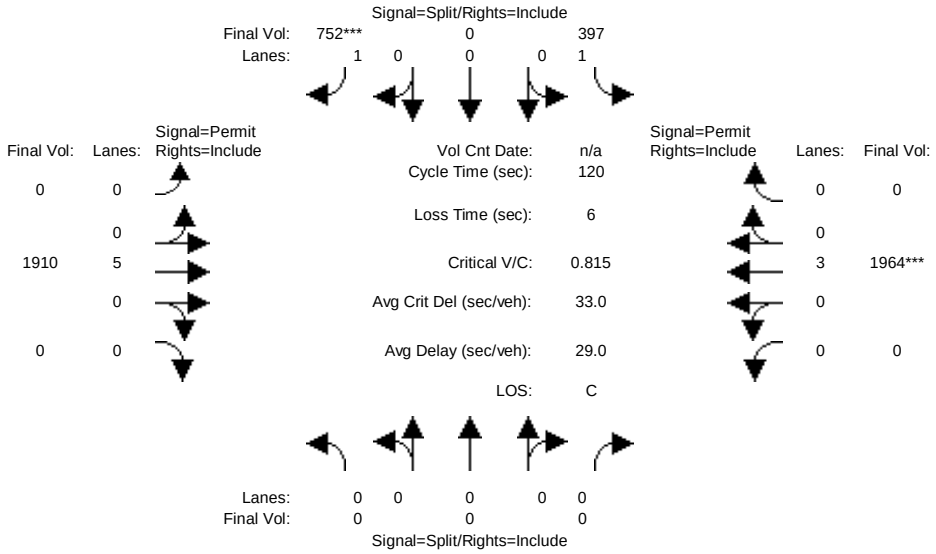
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #48: Stevens Creek Boulevard/Lawrence Expressway Ramps West



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps West					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	0	10	0	10	0	0	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	397	0	752	0	1765	0	0	1723	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	397	0	752	0	1765	0	0	1723	0
Added Vol:	0	0	0	0	0	0	0	145	0	0	241	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	397	0	752	0	1910	0	0	1964	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	0	0	397	0	752	0	1910	0	0	1964	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	397	0	752	0	1910	0	0	1964	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	397	0	752	0	1910	0	0	1964	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	5.00	0.00	0.00	3.00	0.00
Final Sat.:	0	0	0	1750	0	1750	0	9500	0	0	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.23	0.00	0.43	0.00	0.20	0.00	0.00	0.34	0.00
Crit Moves:						****					****	
Green Time:	0.0	0.0	0.0	63.3	0.0	63.3	0.0	50.7	0.0	0.0	50.7	0.0
Volume/Cap:	0.00	0.00	0.00	0.43	0.00	0.82	0.00	0.48	0.00	0.00	0.82	0.00
Uniform Del:	0.0	0.0	0.0	17.3	0.0	23.5	0.0	25.0	0.0	0.0	30.5	0.0
IncremntDel:	0.0	0.0	0.0	1.5	0.0	7.9	0.0	0.4	0.0	0.0	3.2	0.0
InitQueuDel:	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	18.8	0.0	31.4	0.0	25.4	0.0	0.0	33.7	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	18.8	0.0	31.4	0.0	25.4	0.0	0.0	33.7	0.0
LOS by Move:	A	A	A	B-	A	C	A	C	A	A	C-	A
HCM2kAvgQ:	0	0	0	238	0	659	0	252	0	0	564	0

Note: Queue reported is the distance per lane in feet.

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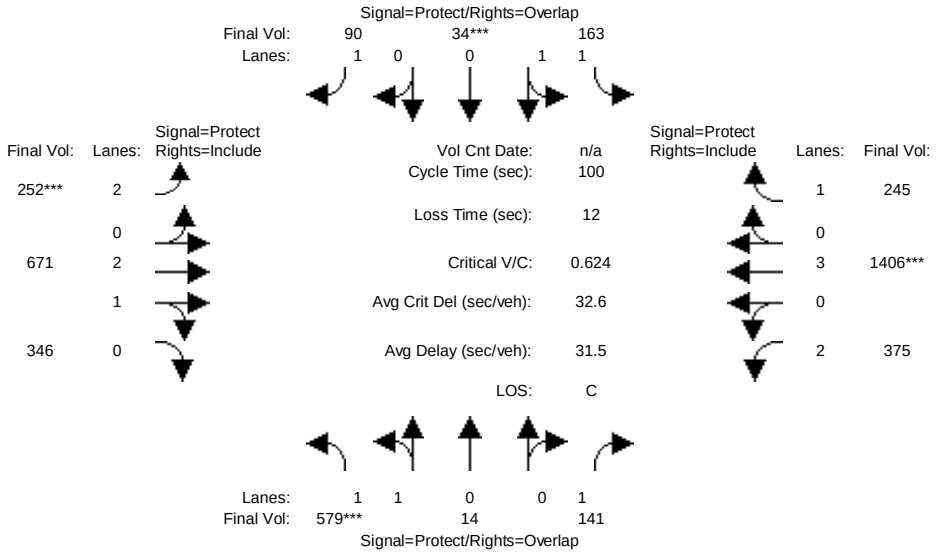
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #49: Lawrence Expressway Ramps/El Camino Real



Street Name:	Lawrence Expressway Ramp						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	579	14	141	163	34	90	252	671	346	375	1406	245
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	579	14	141	163	34	90	252	671	346	375	1406	245
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:	579	14	141	163	34	90	252	671	346	375	1406	245
User Adj:	1.00	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:	579	14	141	163	34	90	252	671	346	375	1406	245
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	579	14	141	163	34	90	252	671	346	375	1406	245
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	579	14	141	163	34	90	252	671	346	375	1406	245
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.93	0.95	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	1.95	0.05	1.00	1.66	0.34	1.00	2.00	2.00	1.00	2.00	3.00	1.00
Final Sat.:	3466	84	1750	2937	613	1750	3150	3800	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.17	0.17	0.08	0.06	0.06	0.05	0.08	0.18	0.20	0.12	0.25	0.14
Crit Moves:	****				****		****				****	
Green Time:	26.4	25.6	45.0	10.7	10.0	22.6	12.6	32.2	32.2	19.4	39.0	39.0
Volume/Cap:	0.63	0.65	0.18	0.52	0.55	0.23	0.63	0.55	0.61	0.61	0.63	0.36
Uniform Del:	32.5	33.2	16.4	42.2	42.9	31.5	41.5	27.9	28.6	36.9	24.7	21.7
IncremntDel:	3.2	3.6	0.5	4.9	6.1	1.3	7.5	1.2	1.7	4.6	1.4	1.5
InitQueuDel:	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:	35.8	36.8	16.9	47.1	49.0	32.9	48.9	29.1	30.3	41.4	26.1	23.1
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:	35.8	36.8	16.9	47.1	49.0	32.9	48.9	29.1	30.3	41.4	26.1	23.1
LOS by Move:	D+	D+	B	D	D	C-	D	C	C	D	C	C
HCM2kAvgQ:	235	240	69	94	98	63	138	221	258	180	305	145

Note: Queue reported is the distance per lane in feet.

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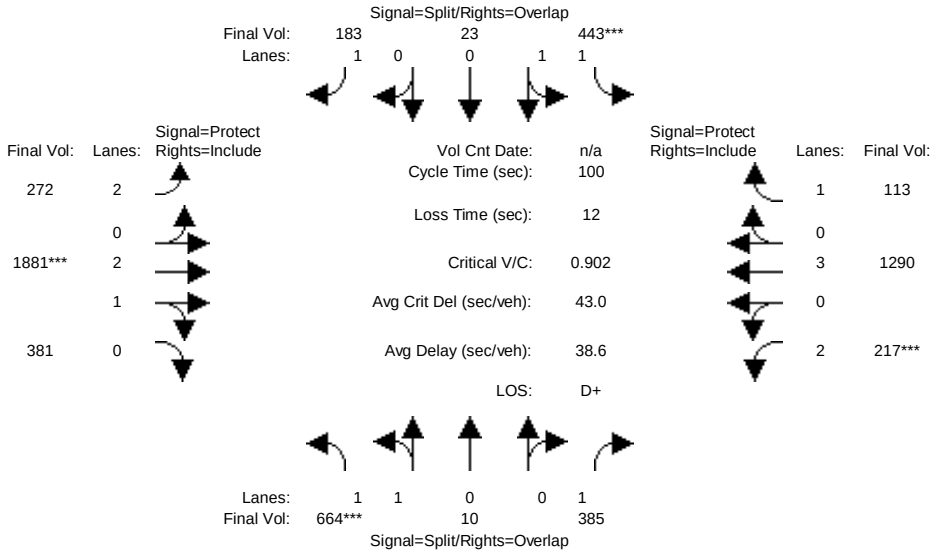
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #49: Lawrence Expressway Ramps/El Camino Real



Street Name:	Lawrence Expressway Ramp						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	664	10	385	443	23	183	272	1881	381	217	1290	113
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	664	10	385	443	23	183	272	1881	381	217	1290	113
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:	664	10	385	443	23	183	272	1881	381	217	1290	113
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	664	10	385	443	23	183	272	1881	381	217	1290	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	664	10	385	443	23	183	272	1881	381	217	1290	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	664	10	385	443	23	183	272	1881	381	217	1290	113
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.93	0.95	0.92	0.83	0.99	0.95	0.83	1.00	0.92
Lanes:	1.97	0.03	1.00	1.90	0.10	1.00	2.00	2.48	0.52	2.00	3.00	1.00
Final Sat.:	3497	53	1750	3375	175	1750	3150	4656	943	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.19	0.19	0.22	0.13	0.13	0.10	0.09	0.40	0.40	0.07	0.23	0.06
Crit Moves:	****			****				****		****		
Green Time:	21.0	21.0	28.7	14.5	14.5	29.0	14.5	44.8	44.8	7.6	37.9	37.9
Volume/Cap:	0.90	0.90	0.77	0.90	0.90	0.36	0.60	0.90	0.90	0.90	0.60	0.17
Uniform Del:	38.5	38.5	32.6	42.0	42.0	28.1	40.0	25.6	25.6	45.8	24.9	20.6
IncremntDel:	16.3	16.3	10.7	21.6	21.6	2.0	5.7	5.9	5.9	37.4	1.2	0.6
InitQueuDel:	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:	54.7	54.7	43.3	63.6	63.6	30.1	45.7	31.4	31.4	83.2	26.1	21.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.7	54.7	43.3	63.6	63.6	30.1	45.7	31.4	31.4	83.2	26.1	21.1
LOS by Move:	D-	D-	D	E	E	C	D	C	C	F	C	C+
HCM2kAvgQ:	362	362	335	274	274	123	140	641	641	172	275	62

Note: Queue reported is the distance per lane in feet.

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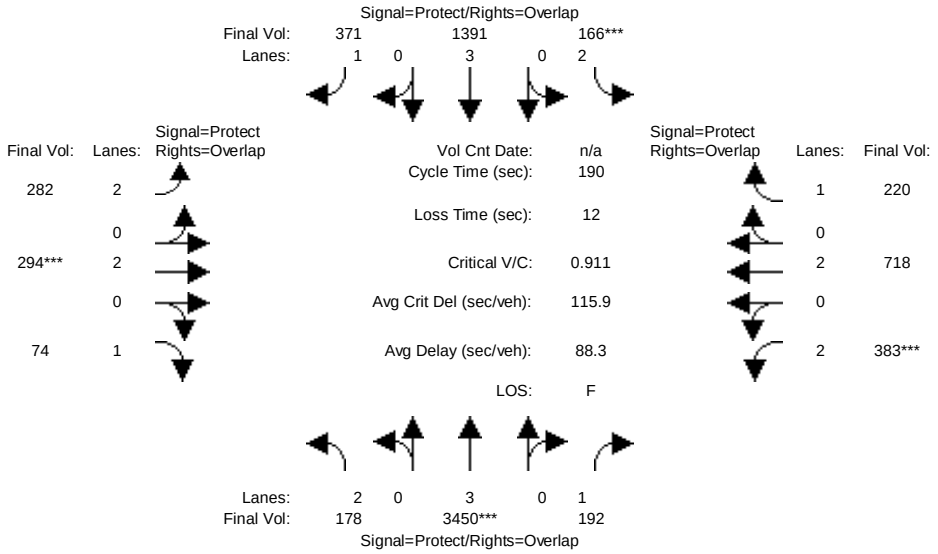
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #50: Lawrence Expressway/Homestead Road



Street Name:	Lawrence Expressway						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	22	107	107	17	102	102	23	43	43	23	43	43
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	162	3966	192	166	1599	359	275	282	74	383	698	220
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	162	3966	192	166	1599	359	275	282	74	383	698	220
Added Vol:	16	0	0	0	0	12	7	12	0	0	20	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	178	3966	192	166	1599	371	282	294	74	383	718	220
User Adj:	1.00	0.87	1.00	1.00	0.87	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:	178	3450	192	166	1391	371	282	294	74	383	718	220
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	178	3450	192	166	1391	371	282	294	74	383	718	220
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	178	3450	192	166	1391	371	282	294	74	383	718	220
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.61	0.11	0.05	0.24	0.21	0.09	0.08	0.04	0.12	0.19	0.13
Crit Moves:		****		****				****		****		
Green Time:	20.7	101	122.3	16.0	95.9	117.6	21.6	40.4	61.1	21.6	40.4	56.4
Volume/Cap:	0.52	1.14	0.17	0.63	0.48	0.34	0.79	0.36	0.13	1.07	0.89	0.42
Uniform Del:	85.0	47.5	14.4	89.4	32.7	18.6	87.1	67.8	48.5	89.5	77.2	57.1
IncremntDel:	5.5	68.7	0.3	10.7	0.6	0.9	15.8	1.3	0.5	66.7	13.8	2.5
InitQueuDel:	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:	90.5	116	14.7	100.1	33.3	19.5	103.0	69.1	49.0	156.2	91.0	59.6
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:	90.5	116	14.7	100.1	33.3	19.5	103.0	69.1	49.0	156.2	91.0	59.6
LOS by Move:	F	F	B	F	C-	B-	F	E	D	F	F	E+
HCM2kAvgQ:	167	2212	122	171	449	286	296	190	84	483	600	287

Note: Queue reported is the distance per lane in feet.

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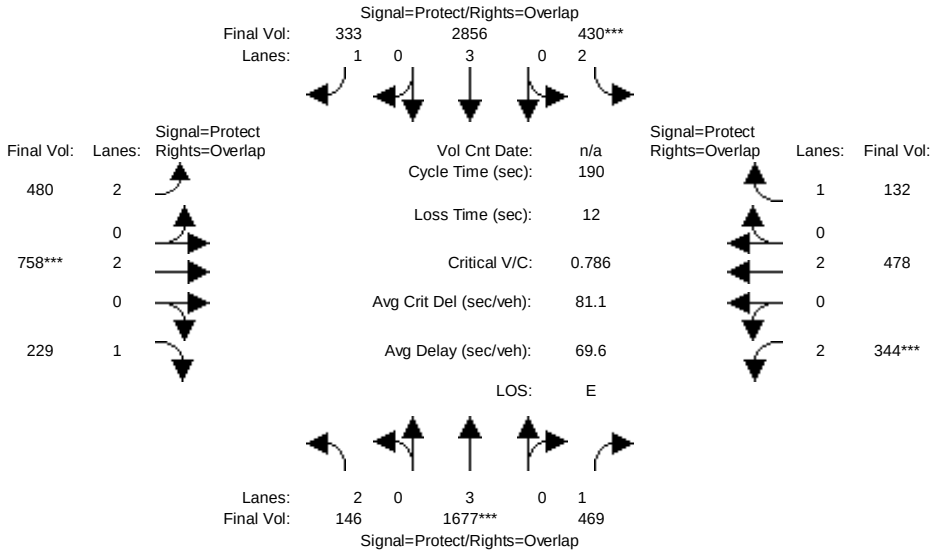
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #50: Lawrence Expressway/Homestead Road



Street Name:	Lawrence Expressway						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	17	95	95	27	105	105	27	38	38	30	41	41
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	92	2123	469	430	3615	293	436	685	229	344	411	132
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	92	2123	469	430	3615	293	436	685	229	344	411	132
Added Vol:	54	0	0	0	0	40	44	73	0	0	67	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	146	2123	469	430	3615	333	480	758	229	344	478	132
User Adj:	1.00	0.79	1.00	1.00	0.79	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:	146	1677	469	430	2856	333	480	758	229	344	478	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	146	1677	469	430	2856	333	480	758	229	344	478	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	146	1677	469	430	2856	333	480	758	229	344	478	132
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.29	0.27	0.14	0.50	0.19	0.15	0.20	0.13	0.11	0.13	0.08
Crit Moves:		****		****				****		****		
Green Time:	16.0	89.4	117.6	25.4	98.8	126.2	27.4	35.7	51.7	28.2	36.5	61.9
Volume/Cap:	0.55	0.63	0.43	1.02	0.96	0.29	1.06	1.06	0.48	0.74	0.65	0.23
Uniform Del:	88.8	40.2	20.0	87.5	46.7	14.1	86.4	82.0	61.5	82.2	75.4	49.6
IncremntDel:	8.0	1.1	1.3	49.4	10.0	0.6	57.6	50.8	3.4	9.9	4.5	0.9
InitQueuDel:	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:	96.8	41.3	21.3	136.9	56.7	14.7	144.1	133	65.0	92.1	79.9	50.6
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:	96.8	41.3	21.3	136.9	56.7	14.7	144.1	133	65.0	92.1	79.9	50.6
LOS by Move:	F	D	C+	F	E+	B	F	F	E	F	E-	D
HCM2kAvgQ:	146	629	391	515	1508	220	582	741	315	334	352	154

Note: Queue reported is the distance per lane in feet.

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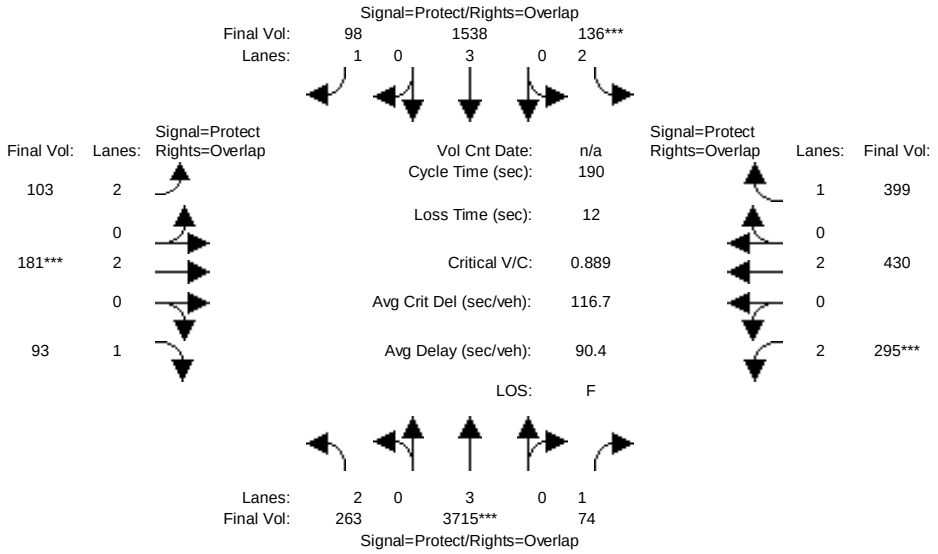
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #51: Lawrence Expressway/Pruneridge Avenue



Street Name:	Lawrence Expressway						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	19	113	113	16	111	111	19	37	37	24	42	42
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	263	4254	74	136	1768	98	103	176	93	295	422	399
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	263	4254	74	136	1768	98	103	176	93	295	422	399
Added Vol:	0	16	0	0	0	0	0	5	0	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	263	4270	74	136	1768	98	103	181	93	295	430	399
User Adj:	1.00	0.87	1.00	1.00	0.87	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:	263	3715	74	136	1538	98	103	181	93	295	430	399
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	263	3715	74	136	1538	98	103	181	93	295	430	399
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	263	3715	74	136	1538	98	103	181	93	295	430	399
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.65	0.04	0.04	0.27	0.06	0.03	0.05	0.05	0.09	0.11	0.23
Crit Moves:		****		****				****		****		
Green Time:	17.8	107	129.2	15.0	104	121.7	17.8	34.6	52.4	22.5	39.3	54.3
Volume/Cap:	0.89	1.16	0.06	0.55	0.49	0.09	0.35	0.26	0.19	0.79	0.55	0.80
Uniform Del:	91.0	44.5	10.9	90.0	28.6	13.9	86.2	71.3	56.2	87.1	72.0	67.1
IncremntDel:	30.9	76.1	0.1	8.4	0.6	0.2	3.2	0.9	0.9	15.8	2.7	12.5
InitQueuDel:	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:	121.8	121	11.0	98.4	29.1	14.1	89.5	72.2	57.1	102.8	74.7	79.6
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:	121.8	121	11.0	98.4	29.1	14.1	89.5	72.2	57.1	102.8	74.7	79.6
LOS by Move:	F	F	B+	F	C	B	F	E	E+	F	E	E-
HCM2kAvgQ:	306	2424	40	138	473	60	95	118	115	310	300	645

Note: Queue reported is the distance per lane in feet.

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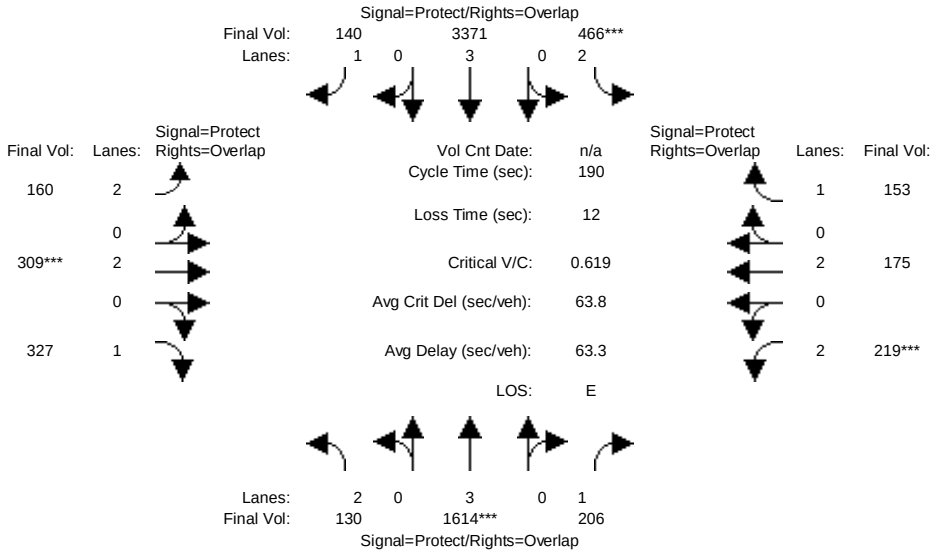
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #51: Lawrence Expressway/Pruneridge Avenue



Street Name:	Lawrence Expressway						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	18	107	107	28	117	117	17	33	33	22	38	38
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	130	2042	206	466	4111	140	160	280	327	219	148	153
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	130	2042	206	466	4111	140	160	280	327	219	148	153
Added Vol:	0	54	0	0	0	0	0	29	0	0	27	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	130	2096	206	466	4111	140	160	309	327	219	175	153
User Adj:	1.00	0.77	1.00	1.00	0.82	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:	130	1614	206	466	3371	140	160	309	327	219	175	153
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	130	1614	206	466	3371	140	160	309	327	219	175	153
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	130	1614	206	466	3371	140	160	309	327	219	175	153
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.28	0.12	0.15	0.59	0.08	0.05	0.08	0.19	0.07	0.05	0.09
Crit Moves:		****		****				****		****		
Green Time:	16.9	101	121.3	26.3	110	126.0	16.0	31.0	48.0	20.7	35.7	62.1
Volume/Cap:	0.46	0.53	0.18	1.07	1.02	0.12	0.60	0.50	0.74	0.64	0.24	0.27
Uniform Del:	87.4	31.2	15.0	87.0	42.5	12.4	89.2	77.0	69.4	86.2	69.8	50.2
IncremntDel:	5.4	0.7	0.4	62.1	21.3	0.2	9.8	2.8	10.6	8.8	0.8	1.1
InitQueuDel:	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:	92.8	31.8	15.3	149.1	63.8	12.7	99.0	79.8	80.0	95.0	70.6	51.3
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:	92.8	31.8	15.3	149.1	63.8	12.7	99.0	79.8	80.0	95.0	70.6	51.3
LOS by Move:	F	C	B	F	E	B	F	E-	F	F	E	D-
HCM2kAvgQ:	125	523	134	573	1911	81	163	221	519	215	112	181

Note: Queue reported is the distance per lane in feet.

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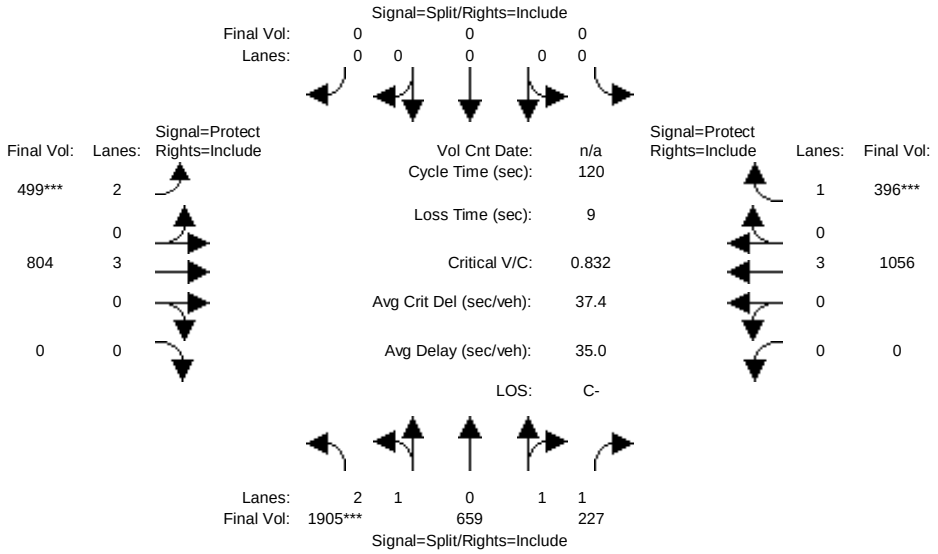
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #52: Stevens Creek Boulevard/Lawrence Expressway Ramps East



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps East					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	0	0	0	7	10	0	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	1874	659	227	0	0	0	499	780	0	0	1017	396
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1874	659	227	0	0	0	499	780	0	0	1017	396
Added Vol:	31	0	0	0	0	0	0	24	0	0	39	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1905	659	227	0	0	0	499	804	0	0	1056	396
User Adj:	1.00	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:	1905	659	227	0	0	0	499	804	0	0	1056	396
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1905	659	227	0	0	0	499	804	0	0	1056	396
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	1905	659	227	0	0	0	499	804	0	0	1056	396
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.87	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	3.00	1.00	1.00	0.00	0.00	0.00	2.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	4946	1897	1750	0	0	0	3150	5700	0	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.39	0.35	0.13	0.00	0.00	0.00	0.16	0.14	0.00	0.00	0.19	0.23
Crit Moves:	****						****					****
Green Time:	55.5	55.5	55.5	0.0	0.0	0.0	22.8	55.5	0.0	0.0	32.6	32.6
Volume/Cap:	0.83	0.75	0.28	0.00	0.00	0.00	0.83	0.31	0.00	0.00	0.68	0.83
Uniform Del:	28.2	26.5	19.9	0.0	0.0	0.0	46.7	20.2	0.0	0.0	39.0	41.1
IncremntDel:	2.6	1.4	0.1	0.0	0.0	0.0	12.7	0.3	0.0	0.0	2.4	15.6
InitQueuDel:	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	1.00	1.00	0.00	0.00	1.00	1.00
Delay/Veh:	30.7	28.0	20.0	0.0	0.0	0.0	59.5	20.5	0.0	0.0	41.5	56.7
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:	30.7	28.0	20.0	0.0	0.0	0.0	59.5	20.5	0.0	0.0	41.5	56.7
LOS by Move:	C	C	B-	A	A	A	E+	C+	A	A	D	E+
HCM2kAvgQ:	635	521	136	0	0	0	304	154	0	0	311	430

Note: Queue reported is the distance per lane in feet.

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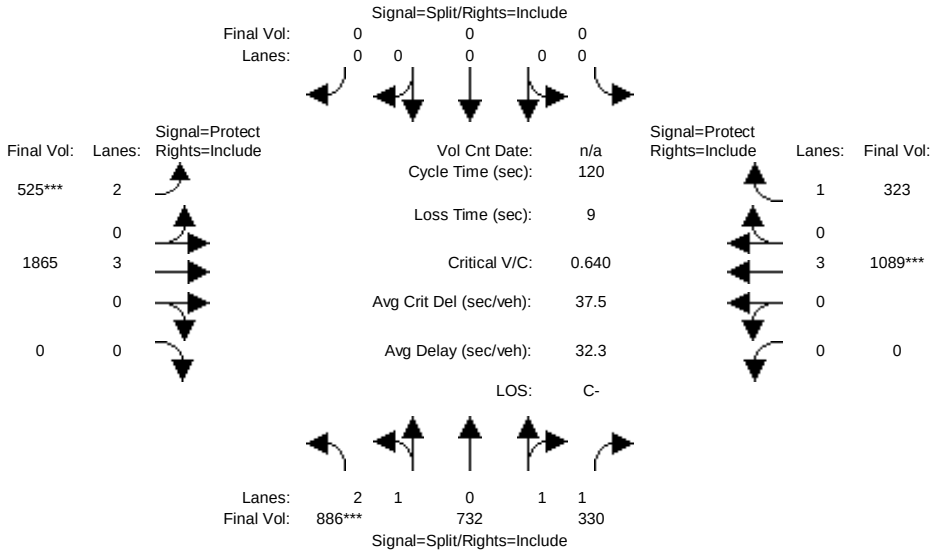
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #52: Stevens Creek Boulevard/Lawrence Expressway Ramps East



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps East					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	50	50	50	0	0	0	30	70	0	0	40	40
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	779	732	330	0	0	0	525	1720	0	0	955	323
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	779	732	330	0	0	0	525	1720	0	0	955	323
Added Vol:	107	0	0	0	0	0	0	145	0	0	134	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	886	732	330	0	0	0	525	1865	0	0	1089	323
User Adj:	1.00	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:	886	732	330	0	0	0	525	1865	0	0	1089	323
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	886	732	330	0	0	0	525	1865	0	0	1089	323
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	886	732	330	0	0	0	525	1865	0	0	1089	323
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.84	0.98	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.34	1.66	1.00	0.00	0.00	0.00	2.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	3730	3081	1750	0	0	0	3150	5700	0	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.24	0.24	0.19	0.00	0.00	0.00	0.17	0.33	0.00	0.00	0.19	0.18
Crit Moves:	****						****				****	
Green Time:	46.5	46.5	46.5	0.0	0.0	0.0	27.9	65.1	0.0	0.0	37.2	37.2
Volume/Cap:	0.61	0.61	0.49	0.00	0.00	0.00	0.72	0.60	0.00	0.00	0.62	0.60
Uniform Del:	31.7	31.7	29.8	0.0	0.0	0.0	45.6	20.1	0.0	0.0	38.0	37.7
IncremntDel:	0.9	0.9	0.4	0.0	0.0	0.0	5.9	0.9	0.0	0.0	1.6	4.8
InitQueuDel:	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	1.00	1.00	0.00	0.00	1.00	1.00
Delay/Veh:	32.6	32.6	30.2	0.0	0.0	0.0	51.5	20.9	0.0	0.0	39.6	42.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	32.6	32.6	30.2	0.0	0.0	0.0	51.5	20.9	0.0	0.0	39.6	42.4
LOS by Move:	C-	C-	C	A	A	A	D-	C+	A	A	D	D
HCM2kAvgQ:	363	363	265	0	0	0	303	427	0	0	315	301

Note: Queue reported is the distance per lane in feet.

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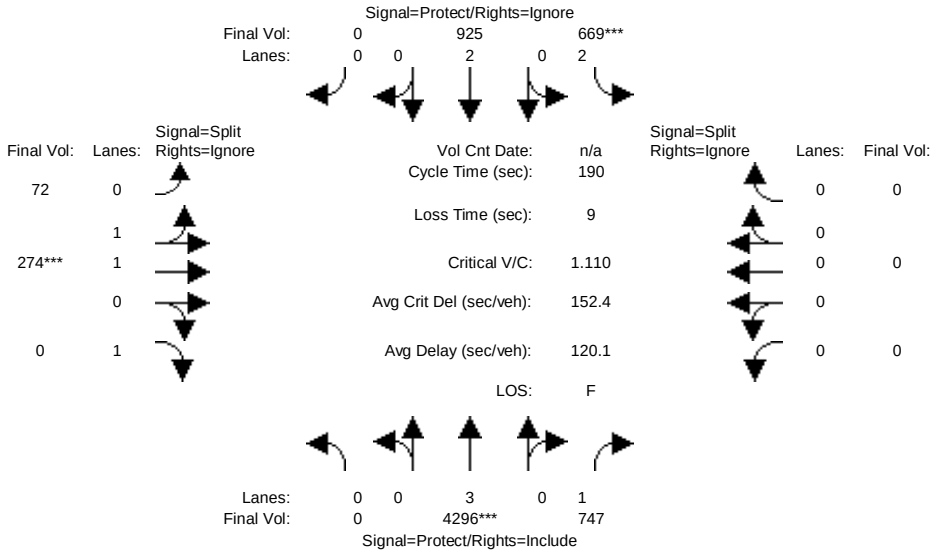
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #53: Lawrence Expressway/I-280 Ramps South



Street Name:	Lawrence Expressway						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	102	120	36	156	0	34	34	34	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	4249	747	669	925	0	72	256	272	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	4249	747	669	925	0	72	256	272	0	0	0
Added Vol:	0	47	0	0	0	0	0	18	29	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	4296	747	669	925	0	72	274	301	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	4296	747	669	925	0	72	274	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	4296	747	669	925	0	72	274	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	4296	747	669	925	0	72	274	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.95	0.98	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	0.43	1.57	1.00	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	770	2929	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.75	0.43	0.21	0.24	0.00	0.09	0.09	0.00	0.00	0.00	0.00
Crit Moves:		****		****				****				
Green Time:	0.0	115	114.6	34.4	149	0.0	32.5	32.5	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	1.25	0.71	1.17	0.31	0.00	0.55	0.55	0.00	0.00	0.00	0.00
Uniform Del:	0.0	39.5	27.4	81.5	6.1	0.0	75.5	75.5	0.0	0.0	0.0	0.0
IncremntDel:	0.0	115	4.0	95.7	0.3	0.0	3.4	3.4	0.0	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	154	31.4	177.2	6.4	0.0	78.9	78.9	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	154	31.4	177.2	6.4	0.0	78.9	78.9	0.0	0.0	0.0	0.0
LOS by Move:	A	F	C	F	A	A	E-	E-	A	A	A	A
HCM2kAvgQ:	0	2985	834	852	194	0	253	253	0	0	0	0

Note: Queue reported is the distance per lane in feet.

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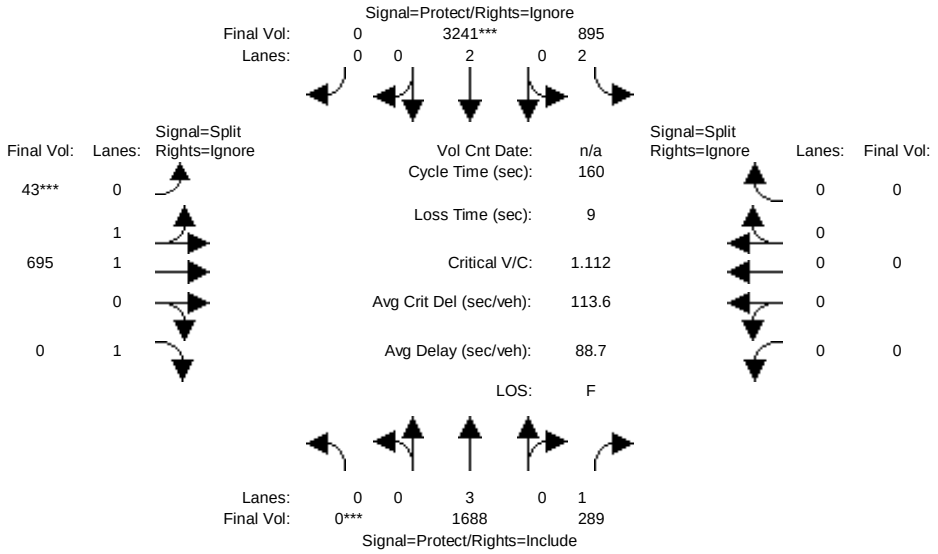
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #53: Lawrence Expressway/I-280 Ramps South



Street Name:	Lawrence Expressway						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	43	43	50	119	0	41	41	41	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1527	289	895	3241	0	43	586	643	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1527	289	895	3241	0	43	586	643	0	0	0
Added Vol:	0	161	0	0	0	0	0	109	174	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1688	289	895	3241	0	43	695	817	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	1688	289	895	3241	0	43	695	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1688	289	895	3241	0	43	695	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	1688	289	895	3241	0	43	695	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.95	0.98	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	0.12	1.88	1.00	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	216	3484	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.30	0.17	0.28	0.85	0.00	0.20	0.20	0.00	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green Time:	0.0	56.4	56.4	56.3	113	0.0	38.8	38.8	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.84	0.47	0.81	1.21	0.00	0.82	0.82	0.00	0.00	0.00	0.00
Uniform Del:	0.0	50.4	42.5	49.6	25.0	0.0	60.6	60.6	0.0	0.0	0.0	0.0
IncremntDel:	0.0	4.5	2.6	6.3	98.8	0.0	8.4	8.4	0.0	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	54.8	45.0	55.9	124	0.0	68.9	68.9	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	54.8	45.0	55.9	124	0.0	68.9	68.9	0.0	0.0	0.0	0.0
LOS by Move:	A	D-	D	E+	F	A	E	E	A	A	A	A
HCM2kAvgQ:	0	709	307	660	2911	0	507	507	0	0	0	0

Note: Queue reported is the distance per lane in feet.

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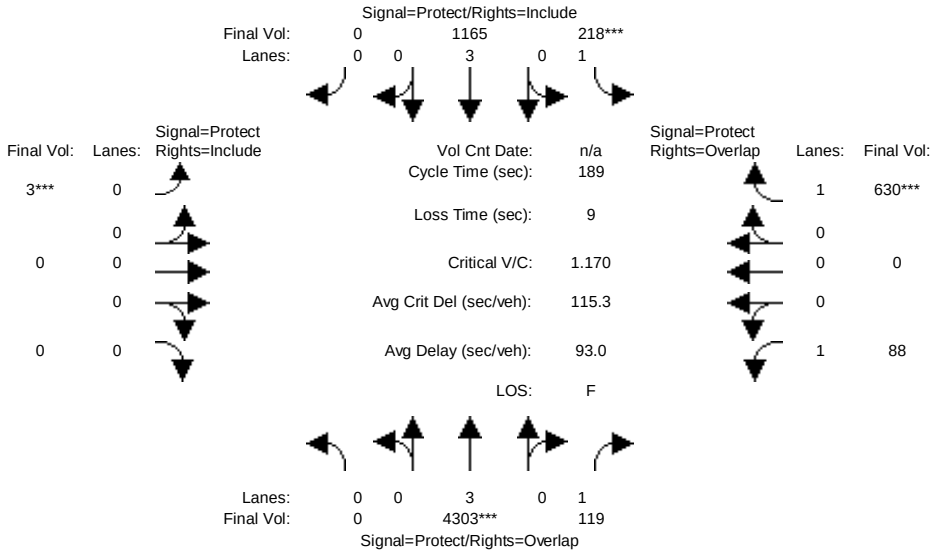
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #54: Lawrence Expressway/Mitty Way



Street Name:	Lawrence Expressway						Mitty Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	129	129	32	161	0	0	0	0	27	0	27
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	4256	119	218	1136	0	3	0	0	88	0	630
Growth Adj:	1.00	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	4256	119	218	1136	0	3	0	0	88	0	630
Added Vol:	0	47	0	0	29	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	4303	119	218	1165	0	3	0	0	88	0	630
User Adj:	1.00	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	4303	119	218	1165	0	3	0	0	88	0	630
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	4303	119	218	1165	0	3	0	0	88	0	630
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	4303	119	218	1165	0	3	0	0	88	0	630
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	3.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5700	0	1750	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.75	0.07	0.12	0.20	0.00	0.00	0.00	0.00	0.05	0.00	0.36
Crit Moves:		****		****			****					****
Green Time:	0.0	124	149.7	30.7	154	0.0	0.2	0.0	0.0	25.9	0.0	56.4
Volume/Cap:	0.00	1.15	0.09	0.77	0.25	0.00	1.45	0.00	0.00	0.37	0.00	1.21
Uniform Del:	0.0	34.0	4.6	78.9	4.1	0.0	98.4	0.0	0.0	77.2	0.0	69.1
IncremntDel:	0.0	72.2	0.1	17.8	0.1	0.0	864.5	0.0	0.0	4.3	0.0	110.1
InitQueuDel:	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	1.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	106	4.7	96.7	4.3	0.0	962.9	0.0	0.0	81.5	0.0	179.2
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	106	4.7	96.7	4.3	0.0	962.9	0.0	0.0	81.5	0.0	179.2
LOS by Move:	A	F	A	F	A	A	F	A	A	F	A	F
HCM2kAvgQ:	0	2707	42	374	130	0	22	0	0	133	0	1414

Note: Queue reported is the distance per lane in feet.

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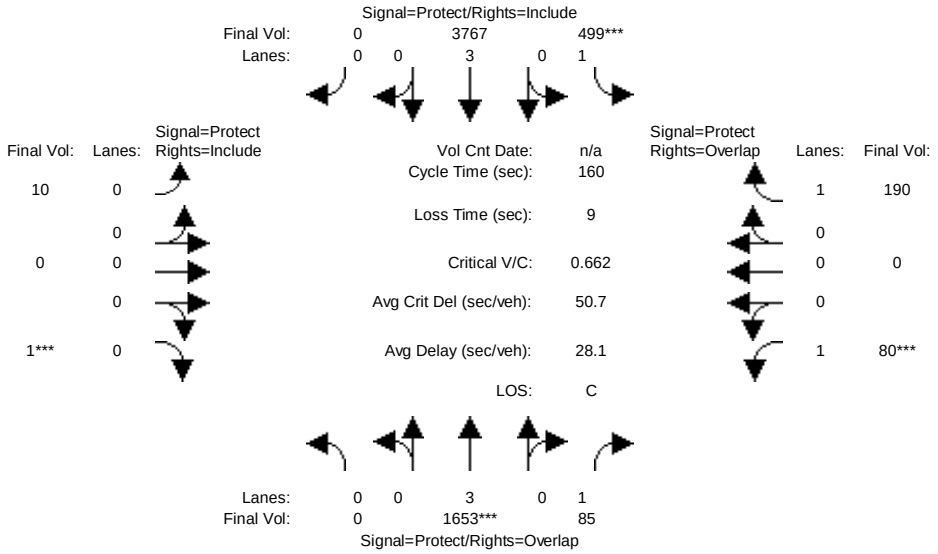
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #54: Lawrence Expressway/Mitty Way



Street Name:	Lawrence Expressway						Mitty Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	82	82	22	131	0	0	0	0	29	0	29
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1492	85	499	3593	0	10	0	1	80	0	190
Growth Adj:	1.00	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	1492	85	499	3593	0	10	0	1	80	0	190
Added Vol:	0	161	0	0	174	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1653	85	499	3767	0	10	0	1	80	0	190
User Adj:	1.00	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	1653	85	499	3767	0	10	0	1	80	0	190
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1653	85	499	3767	0	10	0	1	80	0	190
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1653	85	499	3767	0	10	0	1	80	0	190
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	3.00	0.00	0.91	0.00	0.09	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5700	0	1591	0	159	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.29	0.05	0.29	0.66	0.00	0.01	0.00	0.01	0.05	0.00	0.11
Crit Moves:		****		****					****	****		
Green Time:	0.0	77.6	105.1	45.4	123	0.0	28.5	0.0	1.0	27.5	0.0	72.8
Volume/Cap:	0.00	0.60	0.07	1.01	0.86	0.00	0.04	0.00	1.01	0.27	0.00	0.24
Uniform Del:	0.0	31.5	10.5	60.5	13.3	0.0	57.5	0.0	84.0	60.8	0.0	28.1
IncremntDel:	0.0	1.0	0.1	41.7	2.4	0.0	0.2	0.0	273.9	2.2	0.0	0.7
InitQueuDel:	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	1.00	0.00	1.00	1.00	0.00	1.00
Delay/Veh:	0.0	32.5	10.6	102.2	15.7	0.0	57.7	0.0	357.9	62.9	0.0	28.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	32.5	10.6	102.2	15.7	0.0	57.7	0.0	357.9	62.9	0.0	28.8
LOS by Move:	A	C-	B+	F	B	A	E+	A	F	E	A	C
HCM2kAvgQ:	0	505	41	846	1132	0	13	0	45	97	0	156

Note: Queue reported is the distance per lane in feet.

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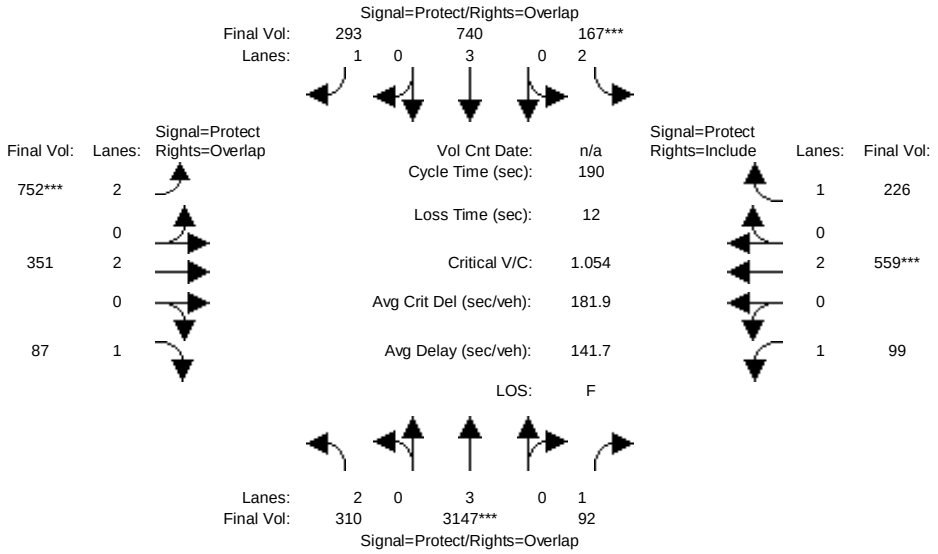
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #55: Lawrence Expressway/Bollinger Road



Street Name:	Lawrence Expressway						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	22	82	82	18	78	78	52	71	71	19	38	38
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	310	3108	92	162	716	293	752	351	87	99	559	218
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	310	3108	92	162	716	293	752	351	87	99	559	218
Added Vol:	0	39	0	5	24	0	0	0	0	0	0	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	310	3147	92	167	740	293	752	351	87	99	559	226
User Adj:	1.00	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:	310	3147	92	167	740	293	752	351	87	99	559	226
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	310	3147	92	167	740	293	752	351	87	99	559	226
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	310	3147	92	167	740	293	752	351	87	99	559	226
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.55	0.05	0.05	0.13	0.17	0.24	0.09	0.05	0.06	0.15	0.13
Crit Moves:		****		****			****				****	
Green Time:	20.7	77.1	95.0	16.9	73.4	122.3	48.9	66.8	87.5	17.9	35.7	35.7
Volume/Cap:	0.90	1.36	0.11	0.59	0.34	0.26	0.93	0.26	0.11	0.60	0.78	0.69
Uniform Del:	89.0	60.0	26.7	88.5	43.7	15.4	73.2	46.8	30.9	87.9	78.1	76.4
IncremntDel:	29.3	165	0.2	9.0	0.4	0.6	18.2	0.5	0.3	15.2	8.3	11.1
InitQueuDel:	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:	118.3	225	26.9	97.5	44.2	16.0	91.4	47.3	31.2	103.1	86.4	87.5
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:	118.3	225	26.9	97.5	44.2	16.0	91.4	47.3	31.2	103.1	86.4	87.5
LOS by Move:	F	F	C	F	D	B	F	D	C	F	F	F
HCM2kAvgQ:	353	2425	77	168	257	200	761	185	78	178	443	369

Note: Queue reported is the distance per lane in feet.

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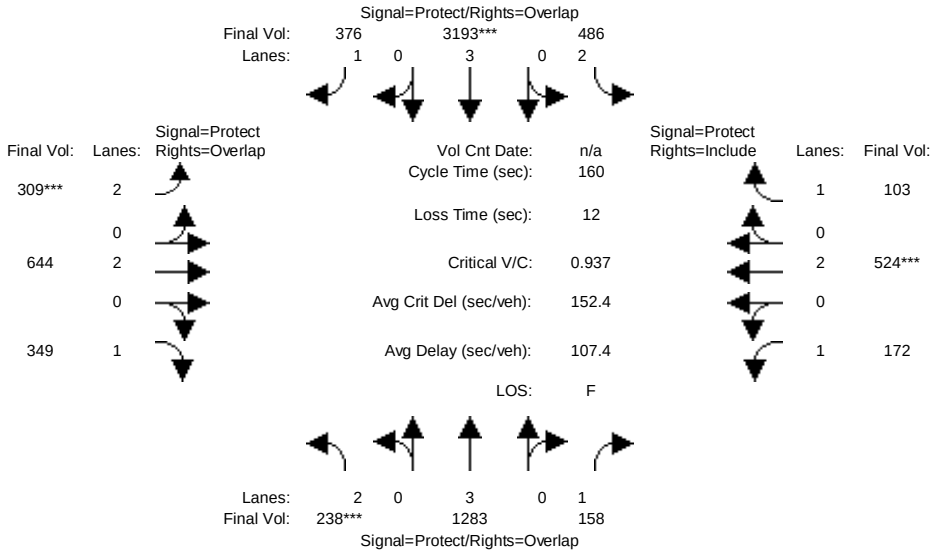
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #55: Lawrence Expressway/Bollinger Road



Street Name:	Lawrence Expressway						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	21	67	67	28	74	74	25	42	42	23	39	39
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	238	1149	158	457	3048	376	309	644	349	172	524	76
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	238	1149	158	457	3048	376	309	644	349	172	524	76
Added Vol:	0	134	0	29	145	0	0	0	0	0	0	27
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	238	1283	158	486	3193	376	309	644	349	172	524	103
User Adj:	1.00	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:	238	1283	158	486	3193	376	309	644	349	172	524	103
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	238	1283	158	486	3193	376	309	644	349	172	524	103
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	238	1283	158	486	3193	376	309	644	349	172	524	103
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.23	0.09	0.15	0.56	0.21	0.10	0.17	0.20	0.10	0.14	0.06
Crit Moves:	****				****		****				****	
Green Time:	19.5	63.0	84.0	26.3	69.8	93.0	23.3	38.5	58.0	21.1	36.3	36.3
Volume/Cap:	0.62	0.57	0.17	0.94	1.28	0.37	0.67	0.70	0.55	0.75	0.61	0.26
Uniform Del:	71.7	40.8	21.3	71.0	48.5	19.2	69.6	59.7	43.7	71.9	59.6	54.6
IncremntDel:	7.3	1.1	0.4	26.8	131	1.0	7.8	4.5	3.4	19.6	3.2	1.6
InitQueuDel:	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:	79.0	41.9	21.7	97.8	180	20.2	77.4	64.3	47.1	91.5	62.8	56.2
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:	79.0	41.9	21.7	97.8	180	20.2	77.4	64.3	47.1	91.5	62.8	56.2
LOS by Move:	E-	D	C+	F	F	C+	E-	E	D	F	E	E+
HCM2kAvgQ:	199	432	112	470	2108	275	256	405	390	272	317	118

Note: Queue reported is the distance per lane in feet.

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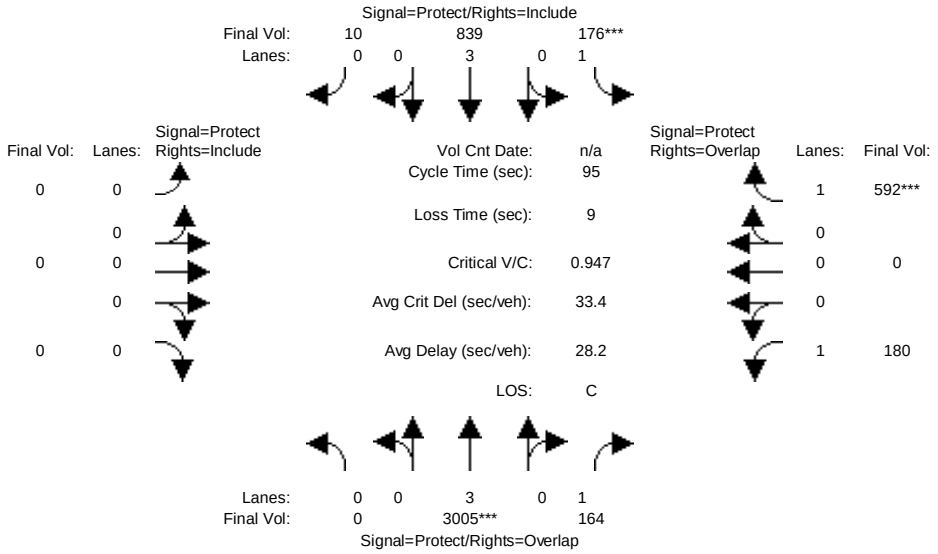
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #56: Lawrence Expressway/Doyle Road



Street Name:	Lawrence Expressway						Doyle Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	61	61	19	79	0	0	0	0	15	0	15
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	2966	164	176	815	10	0	0	0	180	0	592
Growth Adj:	1.00	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	2966	164	176	815	10	0	0	0	180	0	592
Added Vol:	0	39	0	0	24	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	3005	164	176	839	10	0	0	0	180	0	592
User Adj:	1.00	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	3005	164	176	839	10	0	0	0	180	0	592
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	3005	164	176	839	10	0	0	0	180	0	592
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	3005	164	176	839	10	0	0	0	180	0	592
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	2.96	0.04	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5534	66	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.53	0.09	0.10	0.15	0.15	0.00	0.00	0.00	0.10	0.00	0.34
Crit Moves:		****		****								****
Green Time:	0.0	55.7	69.4	17.4	73.1	73.1	0.0	0.0	0.0	13.7	0.0	31.1
Volume/Cap:	0.00	0.90	0.13	0.55	0.20	0.20	0.00	0.00	0.00	0.71	0.00	1.03
Uniform Del:	0.0	18.8	4.2	38.6	3.3	3.3	0.0	0.0	0.0	42.4	0.0	35.0
IncremntDel:	0.0	4.4	0.2	6.7	0.1	0.1	0.0	0.0	0.0	15.8	0.0	46.9
InitQueuDel:	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	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	23.2	4.4	45.3	3.4	3.4	0.0	0.0	0.0	58.2	0.0	81.9
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	23.2	4.4	45.3	3.4	3.4	0.0	0.0	0.0	58.2	0.0	81.9
LOS by Move:	A	C	A	D	A	A	A	A	A	E+	A	F
HCM2kAvgQ:	0	787	42	154	63	63	0	0	0	186	0	725

Note: Queue reported is the distance per lane in feet.

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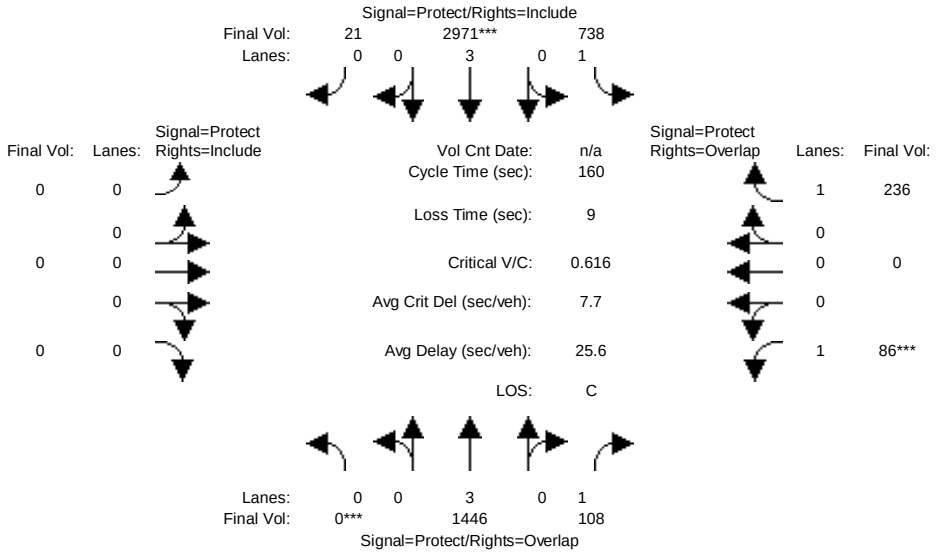
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #56: Lawrence Expressway/Doyle Road



Street Name:	Lawrence Expressway						Doyle Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	31	31	38	141	0	0	0	0	19	0	19
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1312	108	738	2826	21	0	0	0	86	0	236
Growth Adj:	1.00	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	1312	108	738	2826	21	0	0	0	86	0	236
Added Vol:	0	134	0	0	145	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1446	108	738	2971	21	0	0	0	86	0	236
User Adj:	1.00	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	1446	108	738	2971	21	0	0	0	86	0	236
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1446	108	738	2971	21	0	0	0	86	0	236
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1446	108	738	2971	21	0	0	0	86	0	236
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	2.98	0.02	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5561	39	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.06	0.42	0.53	0.53	0.00	0.00	0.00	0.05	0.00	0.13
Crit Moves:	****				****					****		
Green Time:	0.0	50.1	68.1	83.4	133	133.5	0.0	0.0	0.0	18.0	0.0	101.3
Volume/Cap:	0.00	0.81	0.14	0.81	0.64	0.64	0.00	0.00	0.00	0.44	0.00	0.21
Uniform Del:	0.0	53.4	29.7	33.5	5.0	5.0	0.0	0.0	0.0	70.0	0.0	13.1
IncremntDel:	0.0	4.1	0.4	7.7	0.7	0.7	0.0	0.0	0.0	6.9	0.0	0.4
InitQueuDel:	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	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	57.5	30.1	41.2	5.7	5.7	0.0	0.0	0.0	76.9	0.0	13.6
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	57.5	30.1	41.2	5.7	5.7	0.0	0.0	0.0	76.9	0.0	13.6
LOS by Move:	A	E+	C	D	A	A	A	A	A	E-	A	B
HCM2kAvgQ:	0	606	88	871	467	467	0	0	0	121	0	134

Note: Queue reported is the distance per lane in feet.

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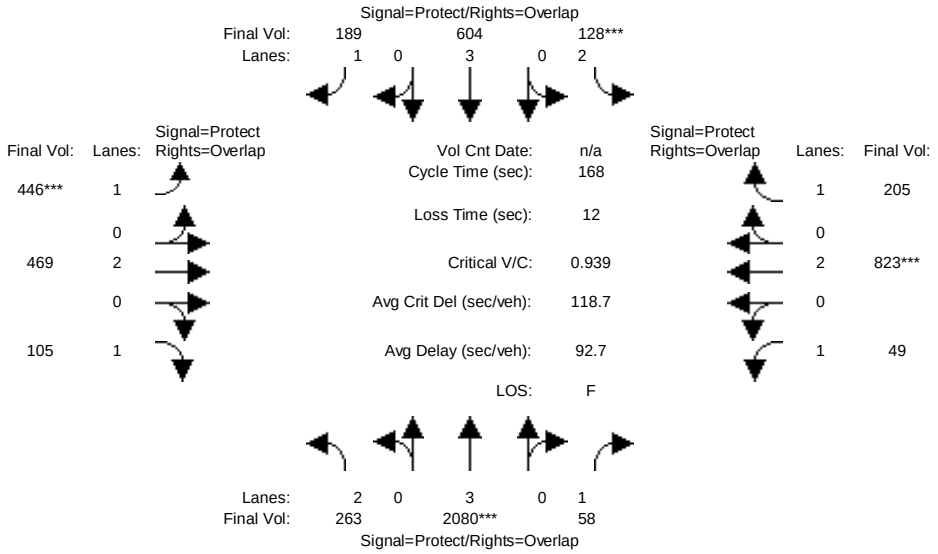
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #57: Lawrence Expressway/Prospect Road



Street Name:	Lawrence Expressway						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	22	57	57	21	56	56	48	75	75	16	43	43
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	263	2041	58	128	580	189	446	469	105	49	823	205
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	263	2041	58	128	580	189	446	469	105	49	823	205
Added Vol:	0	39	0	0	24	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	263	2080	58	128	604	189	446	469	105	49	823	205
User Adj:	1.00	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:	263	2080	58	128	604	189	446	469	105	49	823	205
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	263	2080	58	128	604	189	446	469	105	49	823	205
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	263	2080	58	128	604	189	446	469	105	49	823	205
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.36	0.03	0.04	0.11	0.11	0.25	0.12	0.06	0.03	0.22	0.12
Crit Moves:		****		****			****				****	
Green Time:	20.4	52.9	67.8	19.5	52.0	96.5	44.6	69.6	90.0	14.9	39.9	59.4
Volume/Cap:	0.69	1.16	0.08	0.35	0.34	0.19	0.96	0.30	0.11	0.32	0.91	0.33
Uniform Del:	76.2	62.0	33.3	73.7	48.3	18.4	65.6	35.4	20.7	77.4	67.2	42.8
IncremntDel:	9.7	78.1	0.2	2.6	0.5	0.4	33.1	0.5	0.2	5.3	15.0	1.4
InitQueuDel:	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:	85.9	140	33.6	76.3	48.8	18.8	98.7	35.9	21.0	82.7	82.1	44.3
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:	85.9	140	33.6	76.3	48.8	18.8	98.7	35.9	21.0	82.7	82.1	44.3
LOS by Move:	F	F	C-	E-	D	B-	F	D+	C+	F	F	D
HCM2kAvgQ:	237	1296	51	103	208	129	766	207	74	74	631	217

Note: Queue reported is the distance per lane in feet.

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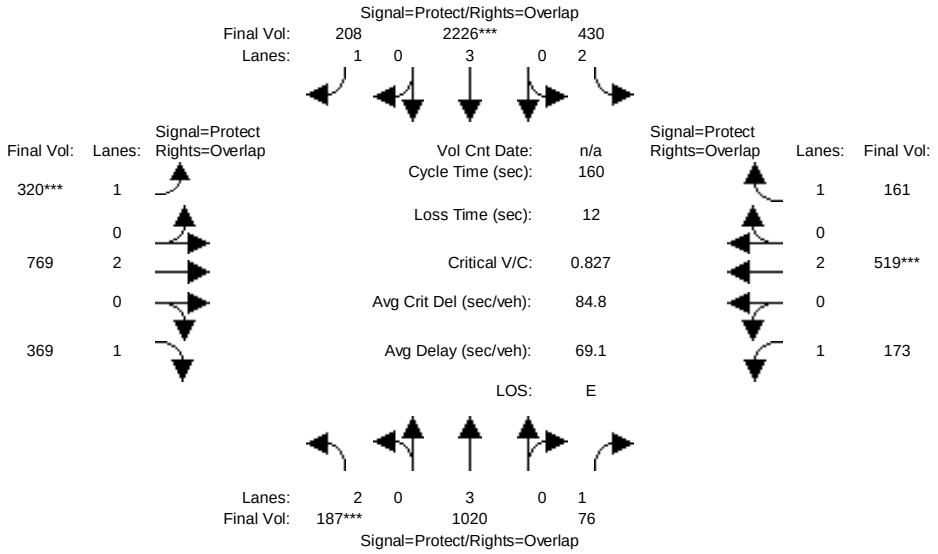
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #57: Lawrence Expressway/Prospect Road



Street Name:	Lawrence Expressway						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	20	49	49	34	62	62	38	52	52	26	39	39
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	187	886	76	430	2081	208	320	769	369	173	519	161
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	187	886	76	430	2081	208	320	769	369	173	519	161
Added Vol:	0	134	0	0	145	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	187	1020	76	430	2226	208	320	769	369	173	519	161
User Adj:	1.00	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:	187	1020	76	430	2226	208	320	769	369	173	519	161
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	187	1020	76	430	2226	208	320	769	369	173	519	161
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	187	1020	76	430	2226	208	320	769	369	173	519	161
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.18	0.04	0.14	0.39	0.12	0.18	0.20	0.21	0.10	0.14	0.09
Crit Moves:	****				****		****				****	
Green Time:	18.5	45.9	69.6	31.8	59.2	94.3	35.1	47.5	66.0	23.7	36.1	67.9
Volume/Cap:	0.51	0.62	0.10	0.69	1.06	0.20	0.83	0.68	0.51	0.67	0.61	0.22
Uniform Del:	71.9	53.6	28.9	64.3	54.5	16.5	64.5	53.6	37.9	69.6	60.1	31.6
IncremntDel:	5.1	1.8	0.3	6.0	36.2	0.4	18.7	3.3	2.6	12.8	3.2	0.7
InitQueuDel:	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:	77.0	55.4	29.1	70.3	90.7	17.0	83.1	57.0	40.4	82.4	63.3	32.2
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:	77.0	55.4	29.1	70.3	90.7	17.0	83.1	57.0	40.4	82.4	63.3	32.2
LOS by Move:	E-	E+	C	E	F	B	F	E+	D	F	E	C-
HCM2kAvgQ:	152	394	61	337	1201	133	487	457	384	257	316	140

Note: Queue reported is the distance per lane in feet.

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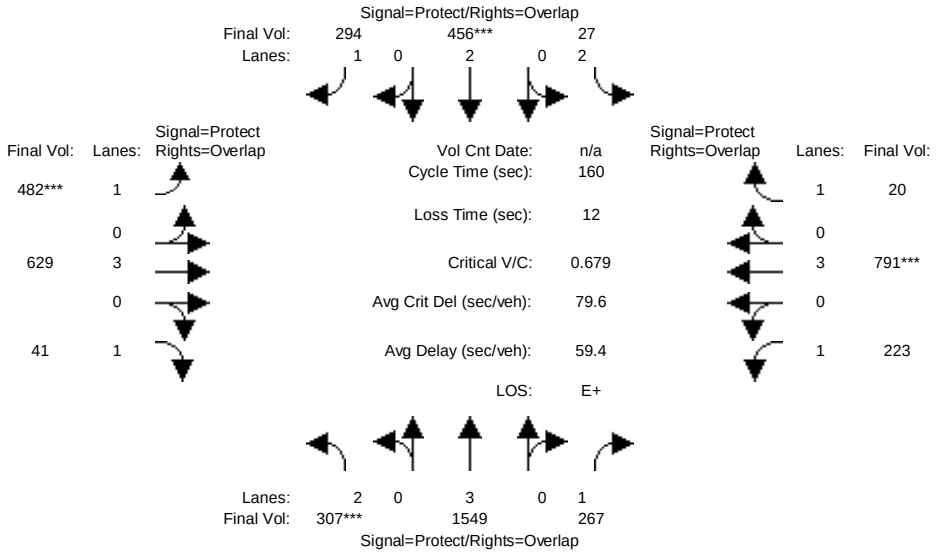
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #58: Lawrence Expressway/Saratoga Avenue



Street Name:	Lawrence Expressway						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	14	61	61	9	55	55	51	61	61	29	39	39
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	307	1525	267	27	442	284	466	629	41	223	791	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	307	1525	267	27	442	284	466	629	41	223	791	20
Added Vol:	0	24	0	0	14	10	16	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	307	1549	267	27	456	294	482	629	41	223	791	20
User Adj:	1.00	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:	307	1549	267	27	456	294	482	629	41	223	791	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	307	1549	267	27	456	294	482	629	41	223	791	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	307	1549	267	27	456	294	482	629	41	223	791	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	5700	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.27	0.15	0.01	0.12	0.17	0.28	0.11	0.02	0.13	0.14	0.01
Crit Moves:	****				****		****				****	
Green Time:	14.0	56.7	83.7	8.4	51.2	98.6	47.4	56.7	70.7	27.0	36.3	44.7
Volume/Cap:	1.12	0.77	0.29	0.16	0.38	0.27	0.93	0.31	0.05	0.76	0.61	0.04
Uniform Del:	78.5	49.2	23.1	77.9	45.2	15.2	58.7	40.3	27.4	68.1	59.7	45.2
IncremntDel:	89.7	2.8	0.8	2.1	0.9	0.6	25.3	0.4	0.1	16.4	2.2	0.2
InitQueuDel:	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:	168.2	52.0	23.9	80.0	46.1	15.8	84.0	40.7	27.6	84.6	61.9	45.4
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:	168.2	52.0	23.9	80.0	46.1	15.8	84.0	40.7	27.6	84.6	61.9	45.4
LOS by Move:	F	D-	C	F	D	B	F	D	C	F	E	D
HCM2kAvgQ:	376	618	205	23	225	185	756	193	32	337	320	20

Note: Queue reported is the distance per lane in feet.

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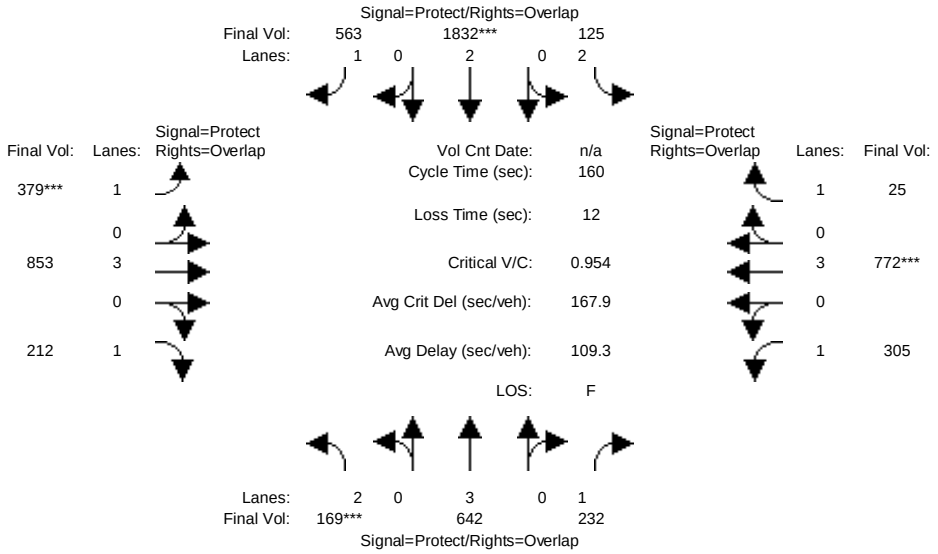
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #58: Lawrence Expressway/Saratoga Avenue



Street Name:	Lawrence Expressway						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	16	56	56	20	60	60	39	46	46	38	46	46
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	169	562	232	125	1745	505	325	853	212	305	772	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	169	562	232	125	1745	505	325	853	212	305	772	25
Added Vol:	0	80	0	0	87	58	54	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	169	642	232	125	1832	563	379	853	212	305	772	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:	169	642	232	125	1832	563	379	853	212	305	772	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	642	232	125	1832	563	379	853	212	305	772	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:	169	642	232	125	1832	563	379	853	212	305	772	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	5700	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.11	0.13	0.04	0.48	0.32	0.22	0.15	0.12	0.17	0.14	0.01
Crit Moves:	****				****		****				****	
Green Time:	14.8	51.8	87.4	18.5	55.5	91.6	36.1	43.0	57.8	35.6	42.5	61.0
Volume/Cap:	0.58	0.35	0.24	0.34	1.39	0.56	0.96	0.56	0.34	0.78	0.51	0.04
Uniform Del:	75.3	44.6	20.6	70.5	56.5	23.3	66.2	54.3	40.1	63.4	53.9	33.6
IncremntDel:	8.2	0.5	0.6	2.6	180	2.3	36.4	1.5	1.4	14.6	1.2	0.1
InitQueuDel:	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:	83.5	45.1	21.2	73.0	237	25.6	102.7	55.8	41.5	78.0	55.1	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:	83.5	45.1	21.2	73.0	237	25.6	102.7	55.8	41.5	78.0	55.1	33.7
LOS by Move:	F	D	C+	E	F	C	F	E+	D	E-	E+	C-
HCM2kAvgQ:	148	209	166	96	1985	495	644	324	213	447	288	21

Note: Queue reported is the distance per lane in feet.

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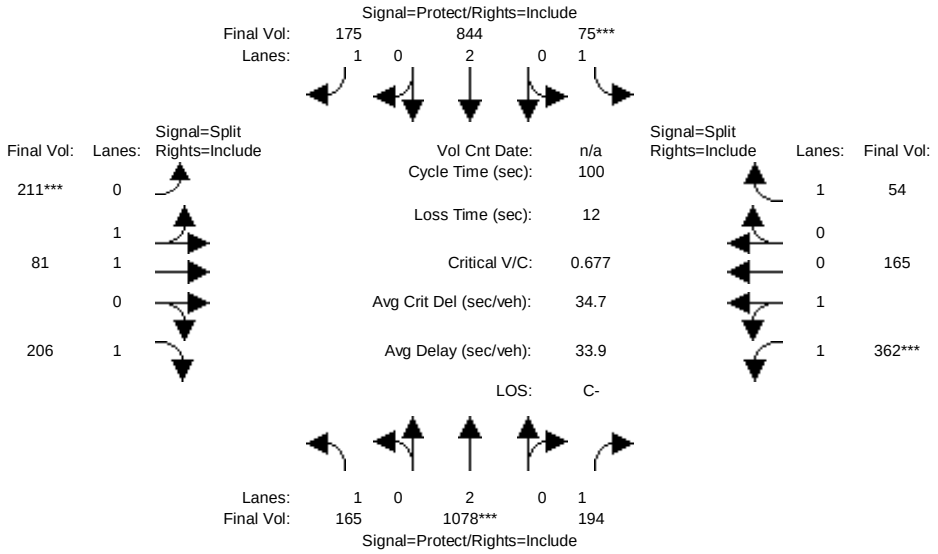
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #59: Saratoga Avenue/Cox Avenue



Street Name:	Cox Avenue						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	165	1062	194	75	834	175	211	81	206	362	165	54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	165	1062	194	75	834	175	211	81	206	362	165	54
Added Vol:	0	16	0	0	10	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	165	1078	194	75	844	175	211	81	206	362	165	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:	165	1078	194	75	844	175	211	81	206	362	165	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	165	1078	194	75	844	175	211	81	206	362	165	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:	165	1078	194	75	844	175	211	81	206	362	165	54
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.38	0.62	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	1900	1750	2438	1111	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.28	0.11	0.04	0.22	0.10	0.12	0.04	0.12	0.15	0.15	0.03
Crit Moves:		****		****			****			****		
Green Time:	14.5	41.6	41.6	7.0	34.1	34.1	17.7	17.7	17.7	21.8	21.8	21.8
Volume/Cap:	0.65	0.68	0.27	0.61	0.65	0.29	0.68	0.24	0.67	0.68	0.68	0.14
Uniform Del:	40.4	23.8	19.2	45.2	27.9	24.1	38.5	35.4	38.4	35.9	35.9	31.6
IncremntDel:	12.3	2.4	0.9	20.7	2.6	1.2	8.5	0.5	10.8	4.8	4.8	0.8
InitQueuDel:	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	26.2	20.1	65.9	30.5	25.4	47.1	35.9	49.2	40.8	40.8	32.4
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:	52.7	26.2	20.1	65.9	30.5	25.4	47.1	35.9	49.2	40.8	40.8	32.4
LOS by Move:	D-	C	C+	E	C	C	D	D+	D	D	D	C-
HCM2kAvgQ:	159	356	105	88	292	107	196	56	189	228	228	37

Note: Queue reported is the distance per lane in feet.

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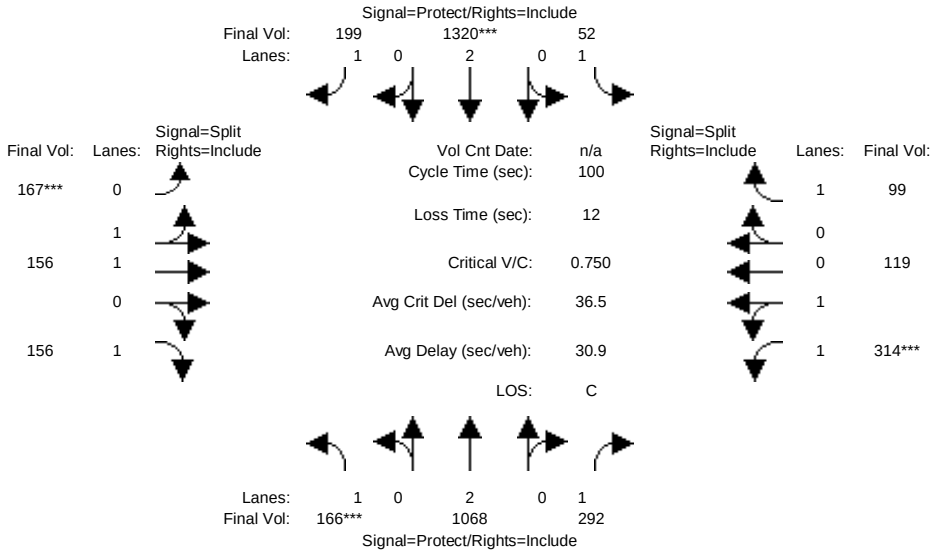
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #59: Saratoga Avenue/Cox Avenue



Street Name:	Cox Avenue						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	166	1014	292	52	1262	199	167	156	156	314	119	99
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	166	1014	292	52	1262	199	167	156	156	314	119	99
Added Vol:	0	54	0	0	58	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	166	1068	292	52	1320	199	167	156	156	314	119	99
User Adj:	1.00	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:	166	1068	292	52	1320	199	167	156	156	314	119	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	166	1068	292	52	1320	199	167	156	156	314	119	99
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	166	1068	292	52	1320	199	167	156	156	314	119	99
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.46	0.54	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	1900	1750	2574	976	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.28	0.17	0.03	0.35	0.11	0.10	0.08	0.09	0.12	0.12	0.06
Crit Moves:	****				****		****			****		
Green Time:	12.7	47.2	47.2	11.8	46.3	46.3	12.7	12.7	12.7	16.3	16.3	16.3
Volume/Cap:	0.75	0.60	0.35	0.25	0.75	0.25	0.75	0.64	0.70	0.75	0.75	0.35
Uniform Del:	42.1	19.4	16.7	40.1	22.1	16.2	42.1	41.5	41.8	39.9	39.9	37.2
IncremntDel:	20.6	1.5	1.2	2.9	3.0	0.7	11.4	6.3	16.8	8.7	8.7	3.3
InitQueuDel:	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:	62.7	20.8	17.9	43.0	25.0	17.0	53.5	47.8	58.6	48.6	48.6	40.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	62.7	20.8	17.9	43.0	25.0	17.0	53.5	47.8	58.6	48.6	48.6	40.5
LOS by Move:	E	C+	B	D	C	B	D-	D	E+	D	D	D
HCM2kAvgQ:	178	308	153	44	445	99	179	143	161	213	213	79

Note: Queue reported is the distance per lane in feet.

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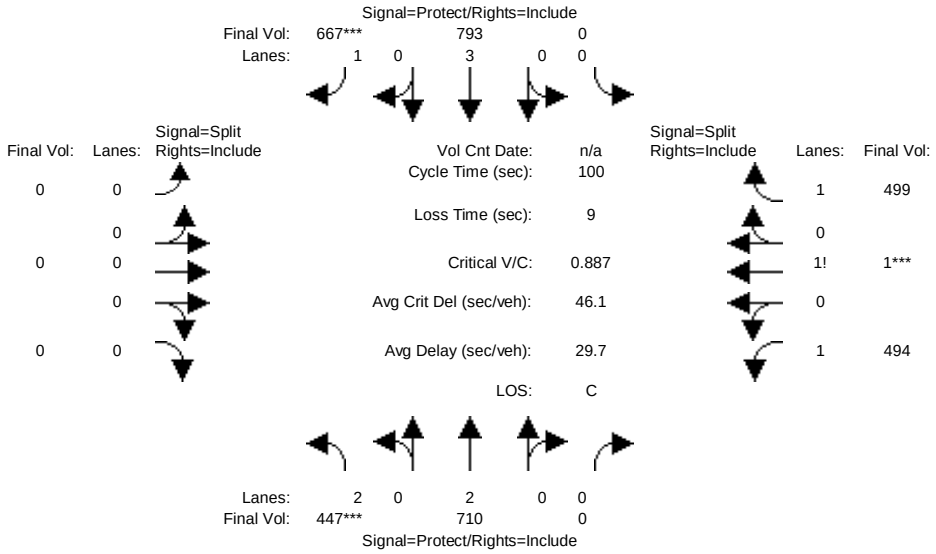
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #60: Saratoga Avenue/SR 85 Ramps North



Street Name:	Saratoga Avenue						SR 85 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	447	710	0	0	783	667	0	0	0	494	1	483
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	447	710	0	0	783	667	0	0	0	494	1	483
Added Vol:	0	0	0	0	10	0	0	0	0	0	0	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	447	710	0	0	793	667	0	0	0	494	1	499
User Adj:	1.00	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:	447	710	0	0	793	667	0	0	0	494	1	499
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	447	710	0	0	793	667	0	0	0	494	1	499
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	447	710	0	0	793	667	0	0	0	494	1	499
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	2.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.49	0.01	1.50
Final Sat.:	3150	3800	0	0	5700	1750	0	0	0	2619	4	2628
Capacity Analysis Module:												
Vol/Sat:	0.14	0.19	0.00	0.00	0.14	0.38	0.00	0.00	0.00	0.19	0.28	0.19
Crit Moves:	****					****					****	
Green Time:	16.0	59.0	0.0	0.0	43.0	43.0	0.0	0.0	0.0	32.0	32.0	32.0
Volume/Cap:	0.89	0.32	0.00	0.00	0.32	0.89	0.00	0.00	0.00	0.59	0.89	0.59
Uniform Del:	41.1	10.4	0.0	0.0	18.9	26.3	0.0	0.0	0.0	28.5	32.3	28.5
IncremntDel:	20.1	0.4	0.0	0.0	0.4	14.6	0.0	0.0	0.0	1.5	10.5	1.5
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	61.2	10.7	0.0	0.0	19.2	40.9	0.0	0.0	0.0	30.0	42.7	30.1
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:	61.2	10.7	0.0	0.0	19.2	40.9	0.0	0.0	0.0	30.0	42.7	30.1
LOS by Move:	E	B+	A	A	B-	D	A	A	A	C	D	C
HCM2kAvgQ:	246	139	0	0	134	598	0	0	0	243	481	245

Note: Queue reported is the distance per lane in feet.

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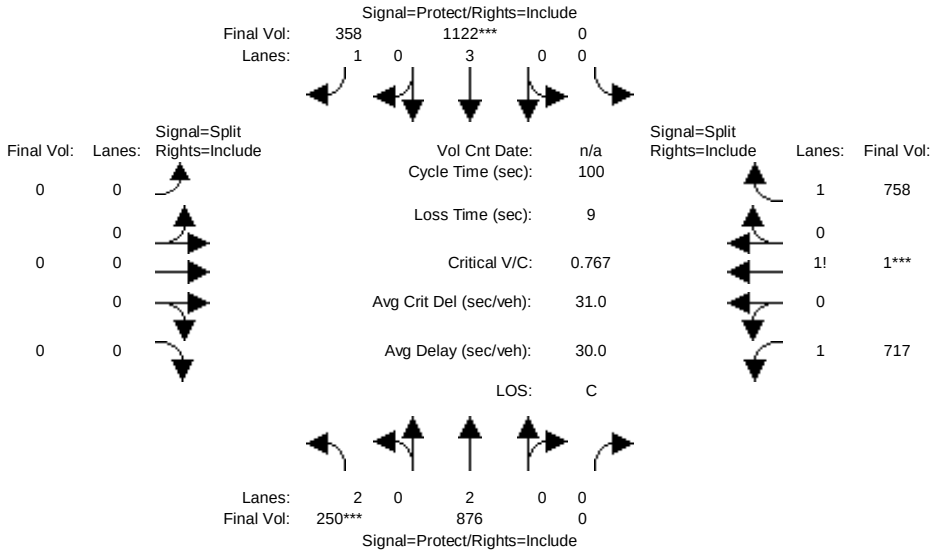
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #60: Saratoga Avenue/SR 85 Ramps North



Street Name:	Saratoga Avenue						SR 85 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	250	876	0	0	1064	358	0	0	0	717	1	704
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	250	876	0	0	1064	358	0	0	0	717	1	704
Added Vol:	0	0	0	0	58	0	0	0	0	0	0	54
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	250	876	0	0	1122	358	0	0	0	717	1	758
User Adj:	1.00	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:	250	876	0	0	1122	358	0	0	0	717	1	758
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	250	876	0	0	1122	358	0	0	0	717	1	758
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	250	876	0	0	1122	358	0	0	0	717	1	758
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	2.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.48	0.01	1.51
Final Sat.:	3150	3800	0	0	5700	1750	0	0	0	2600	2	2648
Capacity Analysis Module:												
Vol/Sat:	0.08	0.23	0.00	0.00	0.20	0.20	0.00	0.00	0.00	0.28	0.42	0.29
Crit Moves:	****				****						****	
Green Time:	10.3	36.0	0.0	0.0	25.7	25.7	0.0	0.0	0.0	55.0	55.0	55.0
Volume/Cap:	0.77	0.64	0.00	0.00	0.77	0.80	0.00	0.00	0.00	0.50	0.77	0.52
Uniform Del:	43.7	26.6	0.0	0.0	34.4	34.7	0.0	0.0	0.0	14.0	17.5	14.2
IncremntDel:	15.8	2.3	0.0	0.0	3.9	13.7	0.0	0.0	0.0	0.6	3.0	0.7
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	59.5	28.9	0.0	0.0	38.3	48.5	0.0	0.0	0.0	14.6	20.5	14.9
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:	59.5	28.9	0.0	0.0	38.3	48.5	0.0	0.0	0.0	14.6	20.5	14.9
LOS by Move:	E+	C	A	A	D+	D	A	A	A	B	C+	B
HCM2kAvgQ:	127	290	0	0	309	331	0	0	0	251	509	265

Note: Queue reported is the distance per lane in feet.

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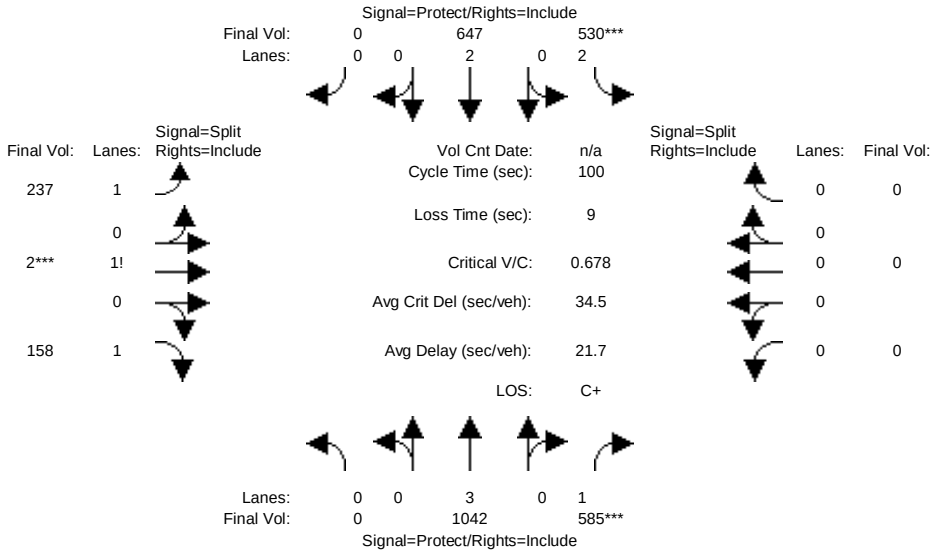
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #61: Saratoga Avenue/SR 85 Ramps South



Street Name:	Saratoga Avenue						SR 85 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1042	585	520	647	0	237	2	158	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1042	585	520	647	0	237	2	158	0	0	0
Added Vol:	0	0	0	10	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1042	585	530	647	0	237	2	158	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	1042	585	530	647	0	237	2	158	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1042	585	530	647	0	237	2	158	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	1042	585	530	647	0	237	2	158	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	1.59	0.01	1.40	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	2789	18	2443	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.33	0.17	0.17	0.00	0.08	0.11	0.06	0.00	0.00	0.00
Crit Moves:			****	****				****				
Green Time:	0.0	49.3	49.3	24.8	74.2	0.0	16.8	16.8	16.8	0.0	0.0	0.0
Volume/Cap:	0.00	0.37	0.68	0.68	0.23	0.00	0.50	0.68	0.38	0.00	0.00	0.00
Uniform Del:	0.0	15.7	19.3	34.0	4.0	0.0	37.8	39.0	37.0	0.0	0.0	0.0
IncremntDel:	0.0	0.4	4.3	4.7	0.2	0.0	2.3	6.2	1.1	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	16.1	23.5	38.6	4.2	0.0	40.1	45.2	38.1	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	16.1	23.5	38.6	4.2	0.0	40.1	45.2	38.1	0.0	0.0	0.0
LOS by Move:	A	B	C	D+	A	A	D	D	D+	A	A	A
HCM2kAvgQ:	0	164	386	235	81	0	126	187	91	0	0	0

Note: Queue reported is the distance per lane in feet.

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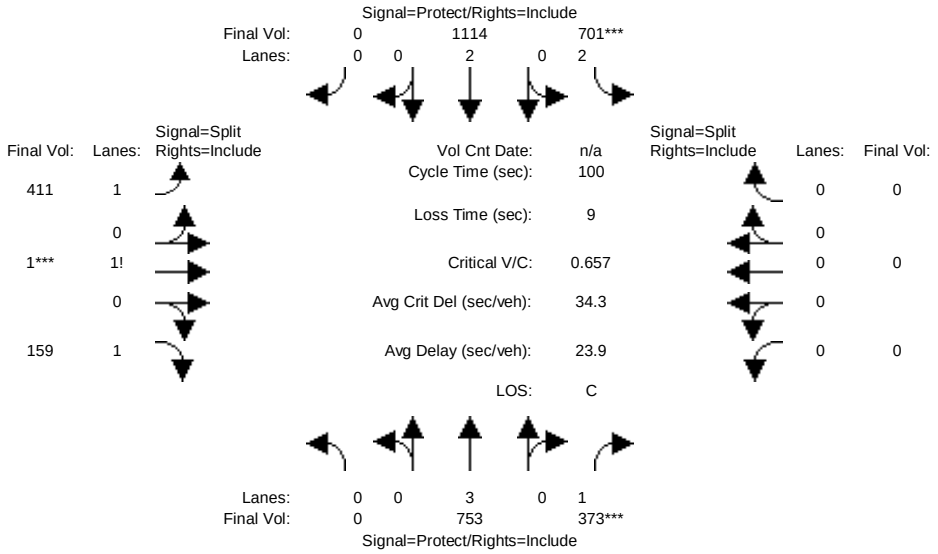
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #61: Saratoga Avenue/SR 85 Ramps South



Street Name:	Saratoga Avenue						SR 85 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	753	373	643	1114	0	411	1	159	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	753	373	643	1114	0	411	1	159	0	0	0
Added Vol:	0	0	0	58	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	753	373	701	1114	0	411	1	159	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	753	373	701	1114	0	411	1	159	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	753	373	701	1114	0	411	1	159	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	753	373	701	1114	0	411	1	159	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.93	0.95	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	1.71	0.01	1.28	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	3045	6	2241	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.13	0.21	0.22	0.29	0.00	0.13	0.16	0.07	0.00	0.00	0.00
Crit Moves:			****	****				****				
Green Time:	0.0	32.5	32.5	33.9	66.4	0.0	24.6	24.6	24.6	0.0	0.0	0.0
Volume/Cap:	0.00	0.41	0.66	0.66	0.44	0.00	0.55	0.66	0.29	0.00	0.00	0.00
Uniform Del:	0.0	26.3	29.0	28.1	8.0	0.0	32.8	33.9	30.6	0.0	0.0	0.0
IncremntDel:	0.0	0.7	5.8	3.2	0.6	0.0	2.1	3.9	0.4	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	26.9	34.8	31.3	8.6	0.0	34.9	37.7	30.9	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:	0.0	26.9	34.8	31.3	8.6	0.0	34.9	37.7	30.9	0.0	0.0	0.0
LOS by Move:	A	C	C-	C	A	A	C-	D+	C	A	A	A
HCM2kAvgQ:	0	153	286	273	200	0	184	236	86	0	0	0

Note: Queue reported is the distance per lane in feet.

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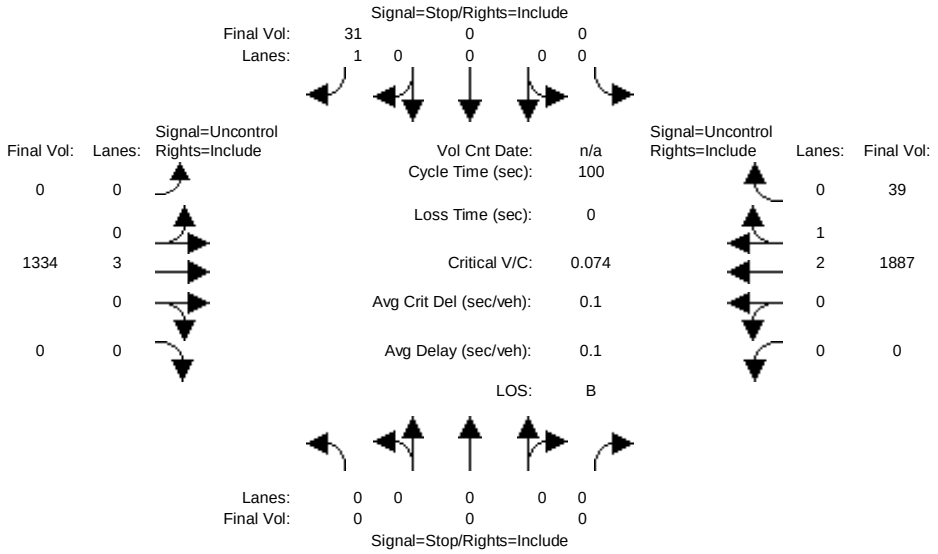
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #62: Stevens Creek Boulevard/Vallco Driveway 5



Street Name:	Vallco Driveway 5						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	0	0	0	0	0	31	0	1334	0	0	1887	39
Growth Adj:	1.00	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	0	0	31	0	1334	0	0	1887	39
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	0	0	31	0	1334	0	0	1887	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:	0	0	0	0	0	31	0	1334	0	0	1887	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	31	0	1334	0	0	1887	39
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	649	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	418	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	418	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.07	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	6.0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	14.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	B	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			14.3			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	0 0	0	0 0	0 0	1	0 0	3 0	0	0 0	2 1	0
Initial Vol:	0	0	0	0	0	31	0	1334	0	0	1887	39
ApproachDel:	xxxxxx			14.3			xxxxxx			xxxxxx		

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=31]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=3291]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	0 0	0	0 0	0 0	1	0 0	3 0	0	0 0	2 1	0
Initial Vol:	0	0	0	0	0	31	0	1334	0	0	1887	39

Major Street Volume: 3260
Minor Approach Volume: 31
Minor Approach Volume Threshold: -122 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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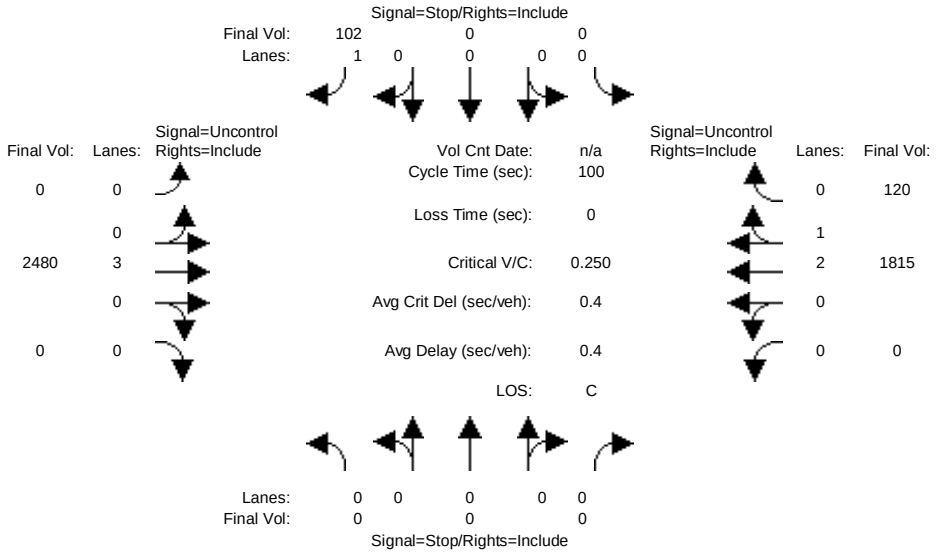
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #62: Stevens Creek Boulevard/Vallco Driveway 5



Street Name:	Vallco Driveway 5						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	0	0	0	0	0	102	0	2480	0	0	1815	120
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	102	0	2480	0	0	1815	120
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	0	0	102	0	2480	0	0	1815	120
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	0	0	102	0	2480	0	0	1815	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	102	0	2480	0	0	1815	120
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	665	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	407	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	407	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.25	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	24.4	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	16.8	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	C	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			16.8			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	102	0	2480	0	0	1815	120
ApproachDel:	xxxxxx			16.8			xxxxxx			xxxxxx		

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.5]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=102]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=4517]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	102	0	2480	0	0	1815	120

Major Street Volume: 4415
Minor Approach Volume: 102
Minor Approach Volume Threshold: -227 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
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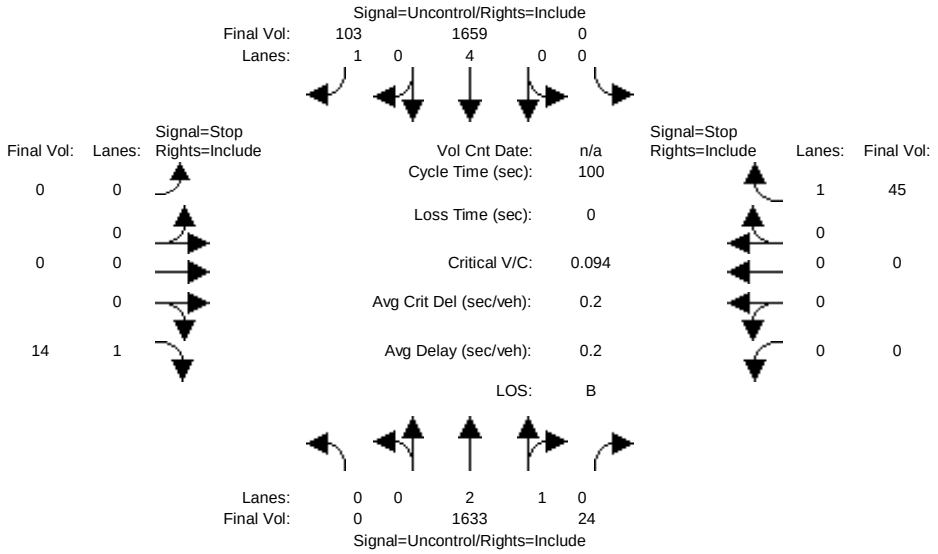
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #1163: Wolfe Road/Vallco Driveway 1



Street Name:	Wolfe Road						Vallco Driveway 1					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	1633	24	0	1659	103	0	0	14	0	0	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1633	24	0	1659	103	0	0	14	0	0	45
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	1633	24	0	1659	103	0	0	14	0	0	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	1633	24	0	1659	103	0	0	14	0	0	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1633	24	0	1659	103	0	0	14	0	0	45
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	415	xxxx	xxxx	556
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	592	xxxx	xxxx	479
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	592	xxxx	xxxx	479
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	0.09
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	1.8	xxxx	xxxx	7.7
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	11.2	xxxxx	xxxx	13.3
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			11.2			13.3		
ApproachLOS:	*			*			B			B		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #1163 Wolfe Road/Vallco Driveway 1

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 4	0	1	0 0 0	0	1	0 0 0	0	1
Initial Vol:	0 1633	24		0 1659	103		0	0	14	0	0	45
ApproachDel:	xxxxxx			xxxxxx			11.2			13.3		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=14]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3478]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=45]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3478]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1163 Wolfe Road/Vallco Driveway 1

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 4	0	1	0 0 0	0	1	0 0 0	0	1
Initial Vol:	0 1633	24		0 1659	103		0	0	14	0	0	45

Major Street Volume: 3419
Minor Approach Volume: 45
Minor Approach Volume Threshold: -139 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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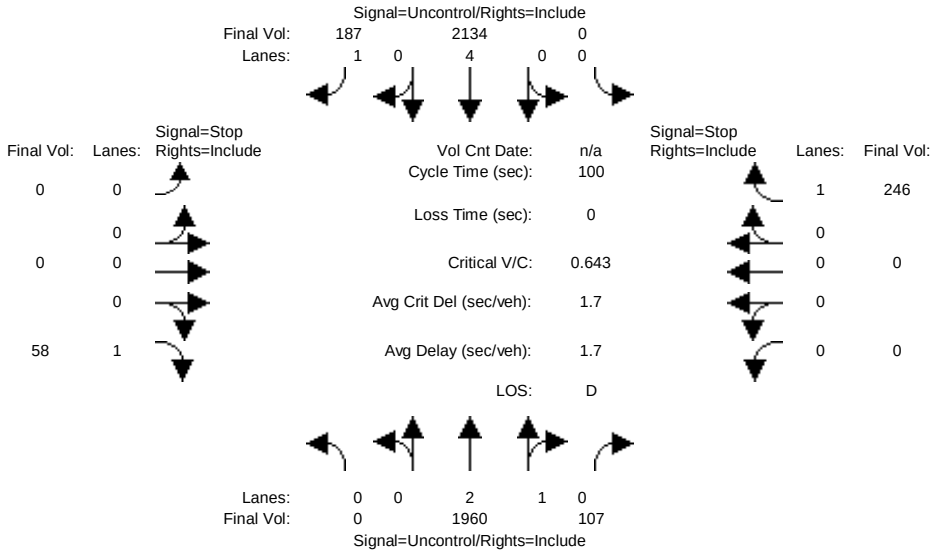
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #1163: Wolfe Road/Vallco Driveway 1



Street Name:	Wolfe Road						Vallco Driveway 1					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	0	1960	107	0	2134	187	0	0	58	0	0	246
Growth Adj:	1.00	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	1960	107	0	2134	187	0	0	58	0	0	246
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	1960	107	0	2134	187	0	0	58	0	0	246
User Adj:	1.00	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	1960	107	0	2134	187	0	0	58	0	0	246
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1960	107	0	2134	187	0	0	58	0	0	246
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	534	xxxx	xxxx	707
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	496	xxxx	xxxx	382
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	496	xxxx	xxxx	382
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.12	xxxx	xxxx	0.64
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	9.9	xxxx	xxxx	107.9
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	13.2	xxxxx	xxxx	29.9
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	D
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			13.2			29.9		
ApproachLOS:	*			*			B			D		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #1163 Wolfe Road/Vallco Driveway 1

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 4	0	1	0 0 0	0	1	0 0 0	0	1
Initial Vol:	0 1960	107		0 2134	187		0	0	58	0	0	246
ApproachDel:	xxxxxx			xxxxxx			13.2			29.9		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=58]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=4692]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=2.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=246]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=4692]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1163 Wolfe Road/Vallco Driveway 1

****

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 4	0	1	0 0 0	0	1	0 0 0	0	1
Initial Vol:	0 1960	107		0 2134	187		0	0	58	0	0	246

Major Street Volume: 4388
Minor Approach Volume: 246
Minor Approach Volume Threshold: -225 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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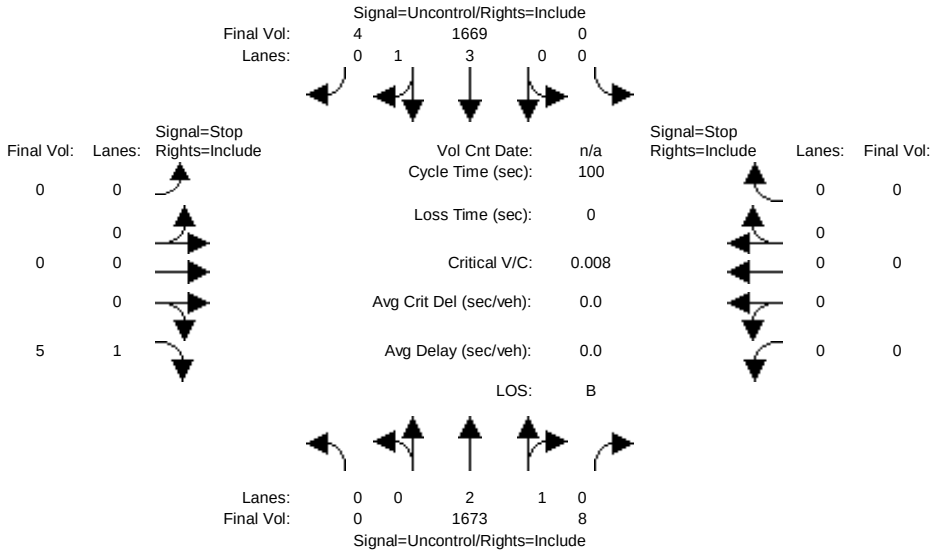
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #64: Wolfe Road/Vallco Driveway 2



Street Name:	Wolfe Road						Vallco Driveway 2					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	1673	8	0	1669	4	0	0	5	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1673	8	0	1669	4	0	0	5	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1673	8	0	1669	4	0	0	5	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	1673	8	0	1669	4	0	0	5	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1673	8	0	1669	4	0	0	5	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	419	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	588	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	588	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.6	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	11.2	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			11.2			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #64 Wolfe Road/Vallco Driveway 2

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 3	1	0	0 0 0	0	1	0 0 0	0	0
Initial Vol:	0 1673	8		0 1669	4		0 0	5		0 0	0	
ApproachDel:	xxxxxx			xxxxxx			11.2			xxxxxx		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=5]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=3359]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #64 Wolfe Road/Vallco Driveway 2

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 3	1	0	0 0 0	0	1	0 0 0	0	0
Initial Vol:	0 1673	8		0 1669	4		0 0	5		0 0	0	

Major Street Volume: 3354
Minor Approach Volume: 5
Minor Approach Volume Threshold: -132 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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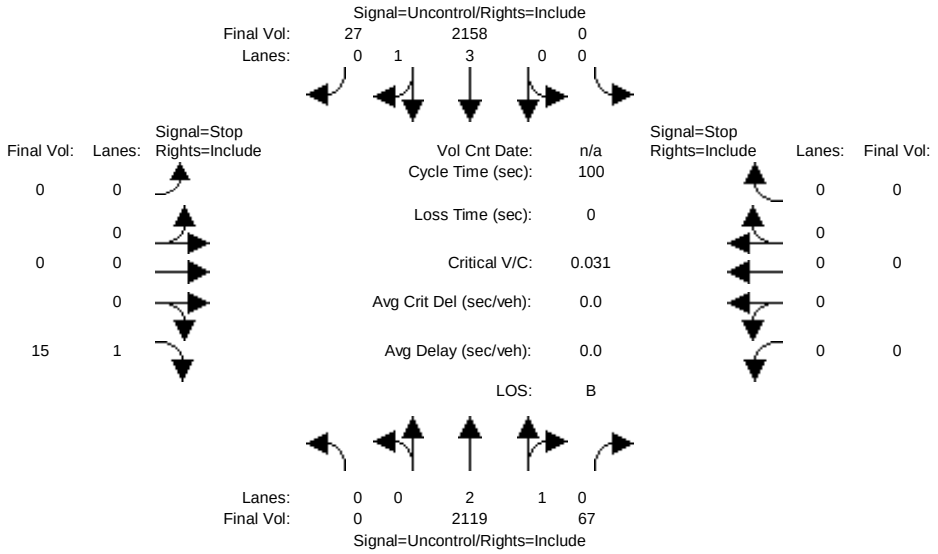
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #64: Wolfe Road/Vallco Driveway 2



Street Name:	Wolfe Road						Vallco Driveway 2					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	0	2119	67	0	2158	27	0	0	15	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2119	67	0	2158	27	0	0	15	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2119	67	0	2158	27	0	0	15	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	2119	67	0	2158	27	0	0	15	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	2119	67	0	2158	27	0	0	15	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	553	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	482	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	482	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	2.4	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	12.7	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			12.7			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #64 Wolfe Road/Vallco Driveway 2

****

Future Volume Alternative: Peak Hour Warrant NOT Met

 Copyright (c) 2008 Dowling Associates, Inc.

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 3	1	0	0 0 0	0	1	0 0 0	0	0
Initial Vol:	0 2119	67		0 2158	27		0 0		15	0 0		0
ApproachDel:	xxxxxx			xxxxxx			12.7			xxxxxx		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=15]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=4386]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #64 Wolfe Road/Vallco Driveway 2

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 3	1	0	0 0 0	0	1	0 0 0	0	0
Initial Vol:	0 2119	67		0 2158	27		0 0		15	0 0		0

Major Street Volume: 4371
Minor Approach Volume: 15
Minor Approach Volume Threshold: -223 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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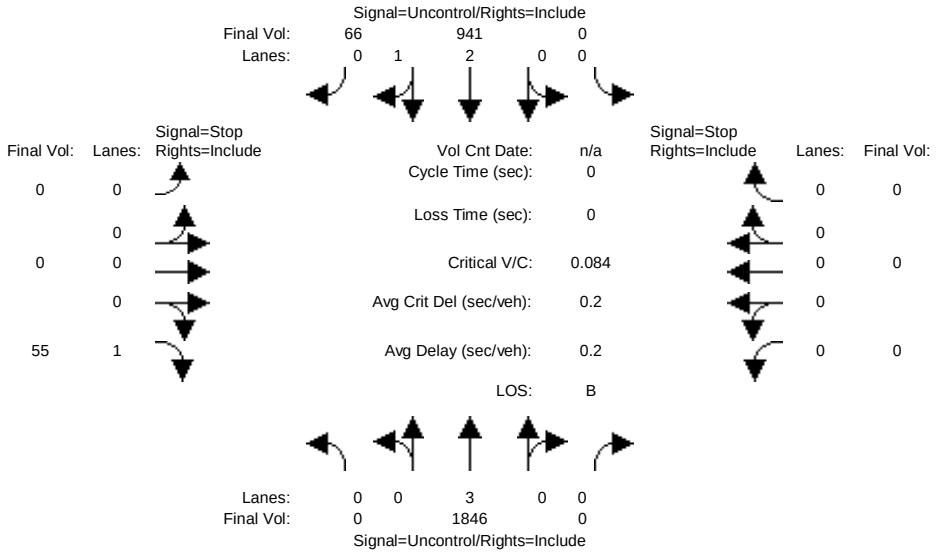
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #65: Wolfe Road/Vallco Driveway 3



Street Name:	Wolfe Road						Vallco Driveway 3					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	1846	0	0	941	66	0	0	55	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1846	0	0	941	66	0	0	55	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1846	0	0	941	66	0	0	55	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	1846	0	0	941	66	0	0	55	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1846	0	0	941	66	0	0	55	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	347	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	655	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	655	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.08	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	6.8	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	11.0	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			11.0			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 2	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0 1846	0		0 941	66		0	0	55	0	0	0
ApproachDel:	xxxxxx			xxxxxx			11.0			xxxxxx		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=55]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=2908]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 2	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0 1846	0		0 941	66		0	0	55	0	0	0

Major Street Volume: 2853
Minor Approach Volume: 55
Minor Approach Volume Threshold: -76 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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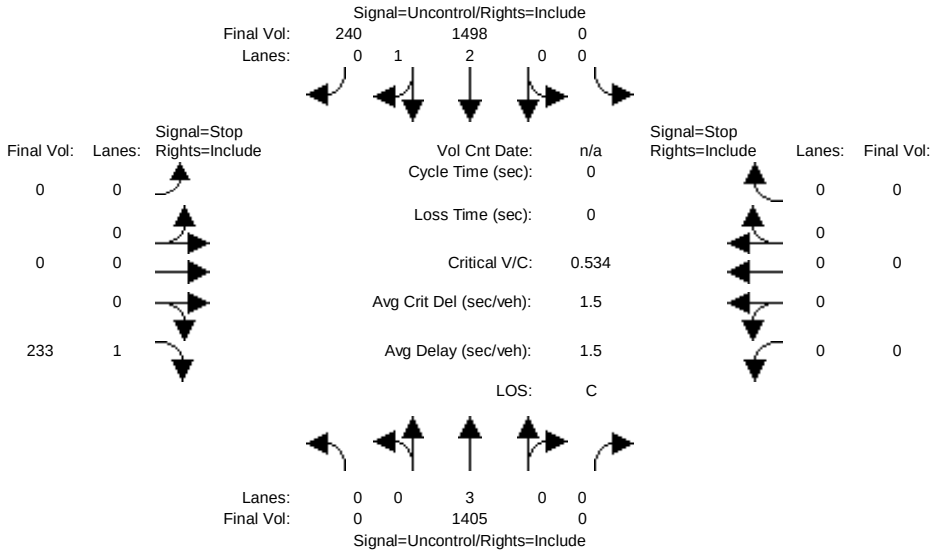
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #65: Wolfe Road/Vallco Driveway 3



Street Name:	Wolfe Road						Vallco Driveway 3					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	1405	0	0	1498	240	0	0	233	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1405	0	0	1498	240	0	0	233	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1405	0	0	1498	240	0	0	233	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	1405	0	0	1498	240	0	0	233	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1405	0	0	1498	240	0	0	233	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	619	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	436	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	436	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.53	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	76.7	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	22.3	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	C	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			22.3			xxxxxx		
ApproachLOS:	*			*			C			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 2	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0 1405	0		0 1498	240		0	0	233	0	0	0
ApproachDel:	xxxxxx			xxxxxx			22.3			xxxxxx		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.4]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=233]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=3376]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 2	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0 1405	0		0 1498	240		0	0	233	0	0	0

Major Street Volume: 3143
Minor Approach Volume: 233
Minor Approach Volume Threshold: -110 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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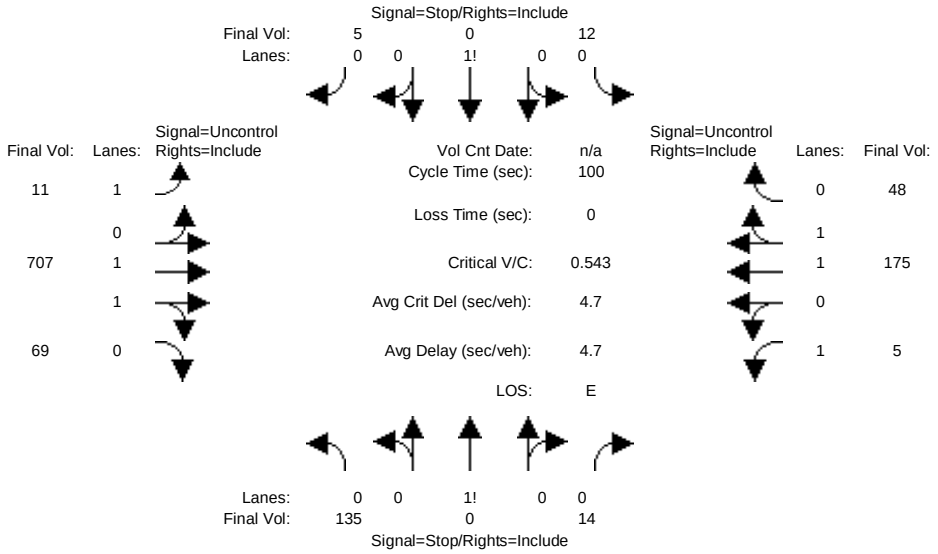
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #66: Vallco Parkway/Vallco Driveway 4



Street Name:	Vallco Driveway 4						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	135	0	14	12	0	5	11	707	69	5	175	48
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	135	0	14	12	0	5	11	707	69	5	175	48
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:	135	0	14	12	0	5	11	707	69	5	175	48
User Adj:	1.00	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:	135	0	14	12	0	5	11	707	69	5	175	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	135	0	14	12	0	5	11	707	69	5	175	48
Critical Gap Module:												
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	861	997	388	585	1007	112	223	xxxx	xxxxx	776	xxxx	xxxxx
Potent Cap.:	253	246	616	399	243	927	1358	xxxx	xxxxx	849	xxxx	xxxxx
Move Cap.:	249	243	616	386	239	927	1358	xxxx	xxxxx	849	xxxx	xxxxx
Volume/Cap:	0.54	0.00	0.02	0.03	0.00	0.01	0.01	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.6	xxxx	xxxxx	0.4	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx	9.3	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	263	xxxxx	xxxx	466	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	3.2	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	35.1	xxxxx	xxxxx	13.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	E	*	*	B	*	*	*	*	*	*	*
ApproachDel:		35.1			13.0		xxxxxx			xxxxxx		
ApproachLOS:		E			B		*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1 1	0	1 0	1 1	0
Initial Vol:	135	0	14	12	0	5	11	707	69	5	175	48
ApproachDel:	35.1			13.0			xxxxxx			xxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.5]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=149]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1181]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=17]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1181]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1 1	0	1 0	1 1	0
Initial Vol:	135	0	14	12	0	5	11	707	69	5	175	48

Major Street Volume: 1015
Minor Approach Volume: 149
Minor Approach Volume Threshold: 280

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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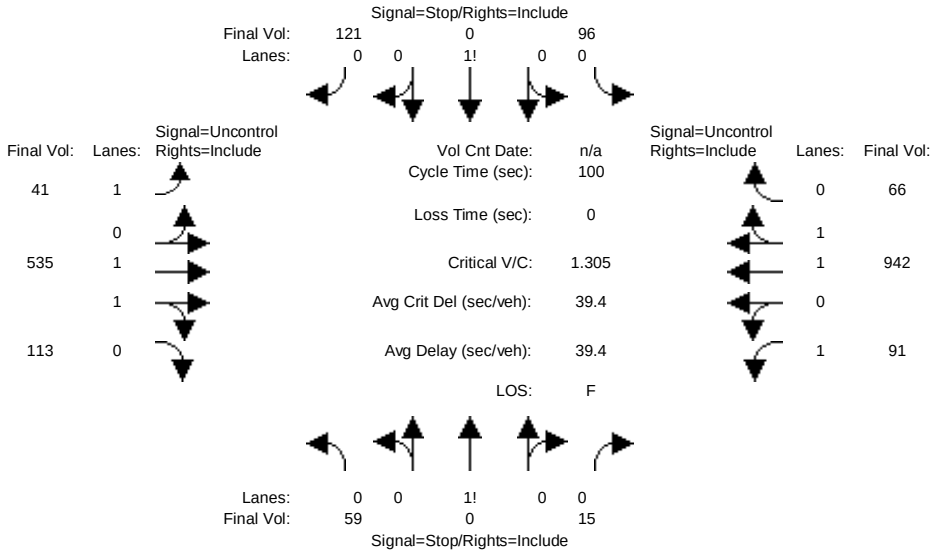
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #66: Vallco Parkway/Vallco Driveway 4



Street Name:	Vallco Driveway 4						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	59	0	15	96	0	121	41	535	113	91	942	66
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	59	0	15	96	0	121	41	535	113	91	942	66
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:	59	0	15	96	0	121	41	535	113	91	942	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:	59	0	15	96	0	121	41	535	113	91	942	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	59	0	15	96	0	121	41	535	113	91	942	66
Critical Gap Module:												
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1327	1864	324	1507	1887	504	1008	xxxx	xxxxx	648	xxxx	xxxxx
Potent Cap.:	115	74	678	85	71	518	695	xxxx	xxxxx	947	xxxx	xxxxx
Move Cap.:	78	63	678	74	61	518	695	xxxx	xxxxx	947	xxxx	xxxxx
Volume/Cap:	0.75	0.00	0.02	1.31	0.00	0.23	0.06	xxxx	xxxx	0.10	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	4.7	xxxx	xxxxx	7.9	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.5	xxxx	xxxxx	9.2	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	95	xxxxx	xxxx	141	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	4.1	xxxxx	xxxxx	14.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	117	xxxxx	xxxxx	332	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	F	*	*	F	*	*	*	*	*	*	*
ApproachDel:	117.4			331.7			xxxxxx			xxxxxx		
ApproachLOS:	F			F			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 1! 0	0		0 0 1! 0	0		1 0	1 1	0	1 0	1 1	0
Initial Vol:	59	0	15	96	0	121	41	535	113	91	942	66
ApproachDel:	117.4			331.7			xxxxxx			xxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=2.4]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=74]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=2079]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=20.0]
SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=217]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=2079]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 1! 0	0		0 0 1! 0	0		1 0	1 1	0	1 0	1 1	0
Initial Vol:	59	0	15	96	0	121	41	535	113	91	942	66

Major Street Volume: 1788
Minor Approach Volume: 217
Minor Approach Volume Threshold: 85 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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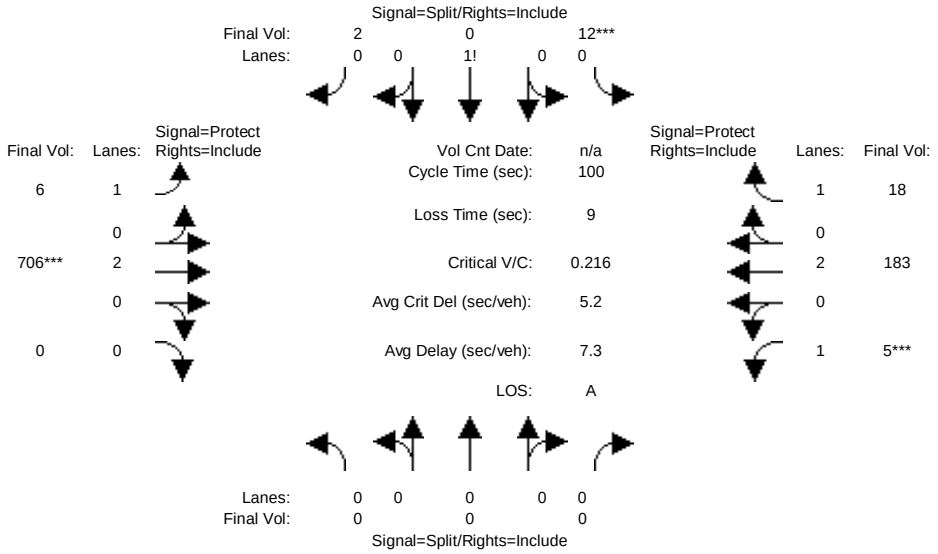
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved AM

Intersection #67: Vallco Parkway/Perimeter Road



Street Name:	Perimeter Road						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	10	0	10	7	10	0	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	12	0	2	6	706	0	5	183	18
Growth Adj:	1.00	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	12	0	2	6	706	0	5	183	18
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	12	0	2	6	706	0	5	183	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:	0	0	0	12	0	2	6	706	0	5	183	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	12	0	2	6	706	0	5	183	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:	0	0	0	12	0	2	6	706	0	5	183	18
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	0.86	0.00	0.14	1.00	2.00	0.00	1.00	2.00	1.00
Final Sat.:	0	0	0	1500	0	250	1750	3800	0	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.19	0.00	0.00	0.05	0.01
Crit Moves:				****				****		****		
Green Time:	0.0	0.0	0.0	10.0	0.0	10.0	33.4	74.0	0.0	7.0	47.6	47.6
Volume/Cap:	0.00	0.00	0.00	0.08	0.00	0.08	0.01	0.25	0.00	0.04	0.10	0.02
Uniform Del:	0.0	0.0	0.0	40.8	0.0	40.8	22.3	4.2	0.0	43.4	14.4	13.8
IncremntDel:	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00
Delay/Veh:	0.0	0.0	0.0	41.0	0.0	41.0	22.3	4.2	0.0	43.5	14.4	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:	0.0	0.0	0.0	41.0	0.0	41.0	22.3	4.2	0.0	43.5	14.4	13.9
LOS by Move:	A	A	A	D	A	D	C+	A	A	D	B	B
HCM2kAvgQ:	0	0	0	12	0	12	3	86	0	5	38	8

Note: Queue reported is the distance per lane in feet.

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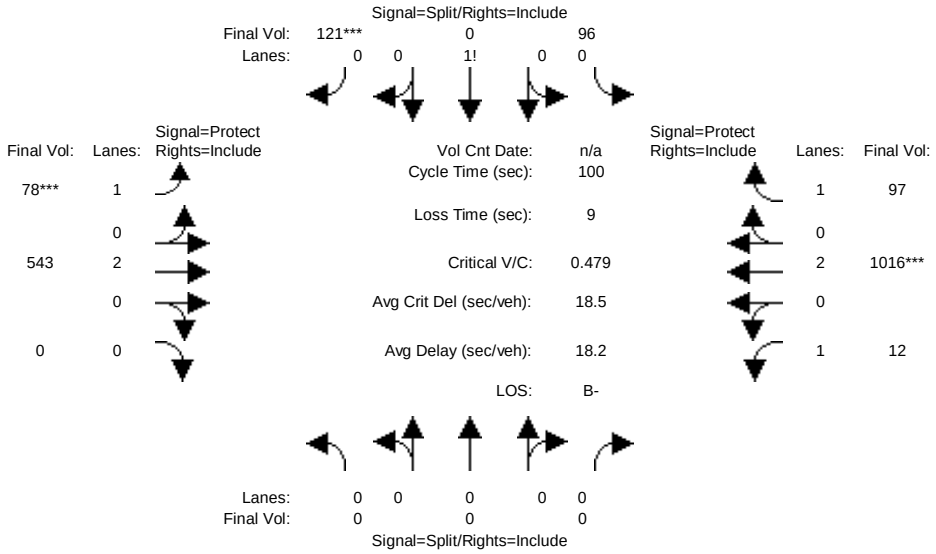
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #67: Vallco Parkway/Perimeter Road



Street Name:	Perimeter Road						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	0	0	10	0	10	7	10	0	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	96	0	121	78	543	0	12	1016	97
Growth Adj:	1.00	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	96	0	121	78	543	0	12	1016	97
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	96	0	121	78	543	0	12	1016	97
User Adj:	1.00	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	96	0	121	78	543	0	12	1016	97
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	96	0	121	78	543	0	12	1016	97
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	96	0	121	78	543	0	12	1016	97
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	0.44	0.00	0.56	1.00	2.00	0.00	1.00	2.00	1.00
Final Sat.:	0	0	0	774	0	976	1750	3800	0	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.12	0.00	0.12	0.04	0.14	0.00	0.01	0.27	0.06
Crit Moves:						****	****				****	
Green Time:	0.0	0.0	0.0	25.9	0.0	25.9	9.3	43.7	0.0	21.4	55.8	55.8
Volume/Cap:	0.00	0.00	0.00	0.48	0.00	0.48	0.48	0.33	0.00	0.03	0.48	0.10
Uniform Del:	0.0	0.0	0.0	31.4	0.0	31.4	43.0	18.5	0.0	31.1	13.3	10.3
IncremntDel:	0.0	0.0	0.0	0.8	0.0	0.8	2.2	0.1	0.0	0.0	0.2	0.0
InitQueuDel:	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	1.00	1.00	1.00
Delay/Veh:	0.0	0.0	0.0	32.2	0.0	32.2	45.3	18.6	0.0	31.1	13.5	10.4
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	32.2	0.0	32.2	45.3	18.6	0.0	31.1	13.5	10.4
LOS by Move:	A	A	A	C-	A	C-	D	B-	A	C	B	B+
HCM2kAvgQ:	0	0	0	161	0	161	62	132	0	8	235	37

Note: Queue reported is the distance per lane in feet.

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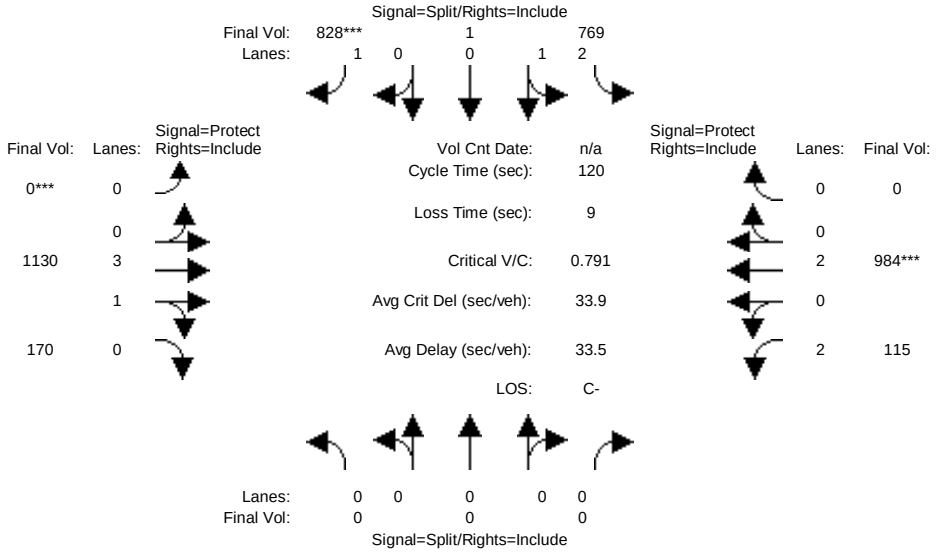
Traffix Output

Background Conditions Plus Specific Plan

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #1: Stevens Creek Boulevard/SR 85 Ramps West



Street Name:	SR 85 Ramps West						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	609	1	828	0	1103	170	115	976	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	609	1	828	0	1103	170	115	976	0
Added Vol:	0	0	0	160	0	0	0	27	0	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	769	1	828	0	1130	170	115	984	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	0	0	769	1	828	0	1130	170	115	984	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	769	1	828	0	1130	170	115	984	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	769	1	828	0	1130	170	115	984	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.87	0.95	0.92	0.92	0.99	0.95	0.83	1.00	0.92
Lanes:	0.00	0.00	0.00	2.99	0.01	1.00	0.00	3.46	0.54	2.00	2.00	0.00
Final Sat.:	0	0	0	4944	6	1750	0	6518	981	3150	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.16	0.16	0.47	0.00	0.17	0.17	0.04	0.26	0.00
Crit Moves:						****	****				****	
Green Time:	0.0	0.0	0.0	71.7	71.7	71.7	0.0	29.4	29.4	9.9	39.3	0.0
Volume/Cap:	0.00	0.00	0.00	0.26	0.26	0.79	0.00	0.71	0.71	0.44	0.79	0.00
Uniform Del:	0.0	0.0	0.0	11.5	11.5	18.4	0.0	41.4	41.4	52.4	36.7	0.0
IncremntDel:	0.0	0.0	0.0	0.2	0.2	6.1	0.0	2.3	2.3	5.4	5.2	0.0
InitQueuDel:	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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	0.0	0.0	0.0	11.7	11.7	24.5	0.0	43.7	43.7	57.8	41.9	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	11.7	11.7	24.5	0.0	43.7	43.7	57.8	41.9	0.0
LOS by Move:	A	A	A	B+	B+	C	A	D	D	E+	D	A
HCM2kAvgQ:	0	0	0	126	126	657	0	305	305	59	413	0

Note: Queue reported is the distance per lane in feet.

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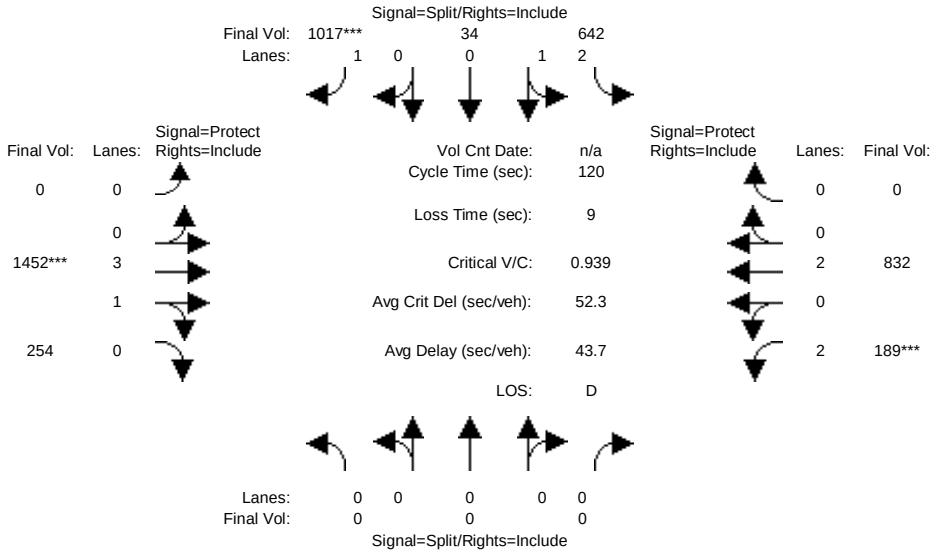
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #1: Stevens Creek Boulevard/SR 85 Ramps West



Street Name:	SR 85 Ramps West						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	0	0	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	554	34	1017	0	1437	254	189	803	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	554	34	1017	0	1437	254	189	803	0
Added Vol:	0	0	0	88	0	0	0	15	0	0	29	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	642	34	1017	0	1452	254	189	832	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	0	0	642	34	1017	0	1452	254	189	832	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	642	34	1017	0	1452	254	189	832	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	642	34	1017	0	1452	254	189	832	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.86	0.95	0.92	0.92	0.99	0.95	0.83	1.00	0.92
Lanes:	0.00	0.00	0.00	2.86	0.14	1.00	0.00	3.38	0.62	2.00	2.00	0.00
Final Sat.:	0	0	0	4699	249	1750	0	6382	1116	3150	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.14	0.14	0.58	0.00	0.23	0.23	0.06	0.22	0.00
Crit Moves:						****		****		****		
Green Time:	0.0	0.0	0.0	74.3	74.3	74.3	0.0	29.1	29.1	7.7	36.7	0.0
Volume/Cap:	0.00	0.00	0.00	0.22	0.22	0.94	0.00	0.94	0.94	0.94	0.72	0.00
Uniform Del:	0.0	0.0	0.0	10.1	10.1	20.8	0.0	44.6	44.6	55.9	37.0	0.0
IncremntDel:	0.0	0.0	0.0	0.2	0.2	16.1	0.0	10.9	10.9	49.3	3.8	0.0
InitQueuDel:	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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	0.0	0.0	0.0	10.3	10.3	36.9	0.0	55.5	55.5	105.2	40.8	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	10.3	10.3	36.9	0.0	55.5	55.5	105.2	40.8	0.0
LOS by Move:	A	A	A	B+	B+	D+	A	E+	E+	F	D	A
HCM2kAvgQ:	0	0	0	103	103	1040	0	499	499	130	349	0

Note: Queue reported is the distance per lane in feet.

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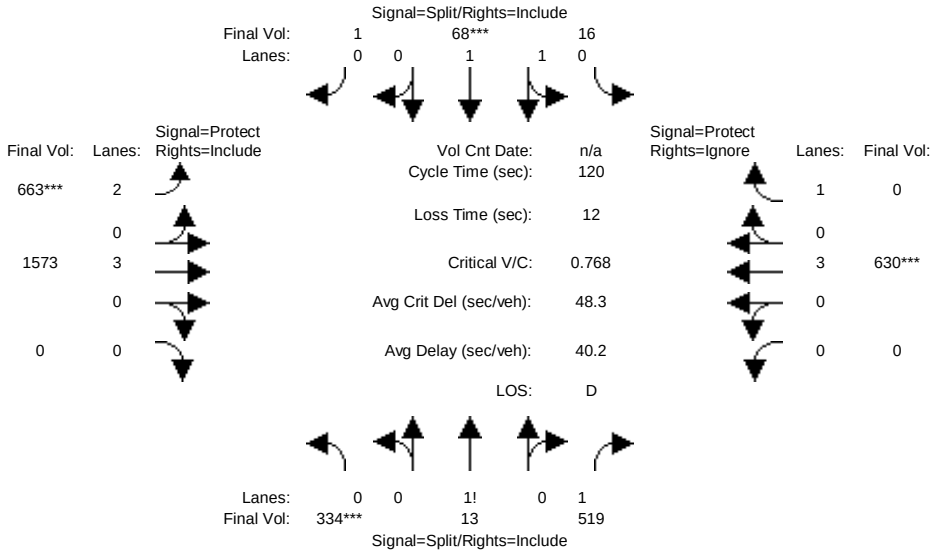
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #2: Stevens Creek Boulevard/SR 85 Ramps East



Street Name:	SR 85 Ramps East						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	0	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	334	13	519	16	68	1	663	1387	0	0	622	501
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	334	13	519	16	68	1	663	1387	0	0	622	501
Added Vol:	0	0	0	0	0	0	0	186	0	0	8	47
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	334	13	519	16	68	1	663	1573	0	0	630	548
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	0.00
PHF Volume:	334	13	519	16	68	1	663	1573	0	0	630	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	334	13	519	16	68	1	663	1573	0	0	630	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	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	334	13	519	16	68	1	663	1573	0	0	630	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.95	0.95	0.95	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	0.55	0.02	1.43	0.38	1.60	0.02	2.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	964	38	2499	678	2880	42	3150	5700	0	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.35	0.35	0.21	0.02	0.02	0.02	0.21	0.28	0.00	0.00	0.11	0.00
Crit Moves:	****				****		****				****	
Green Time:	50.9	50.9	50.9	10.0	10.0	10.0	30.9	47.1	0.0	0.0	16.2	0.0
Volume/Cap:	0.82	0.82	0.49	0.28	0.28	0.28	0.82	0.70	0.00	0.00	0.82	0.00
Uniform Del:	30.5	30.5	25.1	51.6	51.6	51.6	41.9	30.6	0.0	0.0	50.4	0.0
IncremntDel:	7.0	7.0	1.0	2.4	2.4	2.4	9.0	1.9	0.0	0.0	9.4	0.0
InitQueuDel:	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	0.00	0.00	1.00	0.00
Delay/Veh:	37.5	37.5	26.1	54.0	54.0	54.0	50.9	32.4	0.0	0.0	59.8	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:	37.5	37.5	26.1	54.0	54.0	54.0	50.9	32.4	0.0	0.0	59.8	0.0
LOS by Move:	D+	D+	C	D-	D-	D-	D	C-	A	A	E+	A
HCM2kAvgQ:	577	577	263	45	45	45	365	407	0	0	244	0

Note: Queue reported is the distance per lane in feet.

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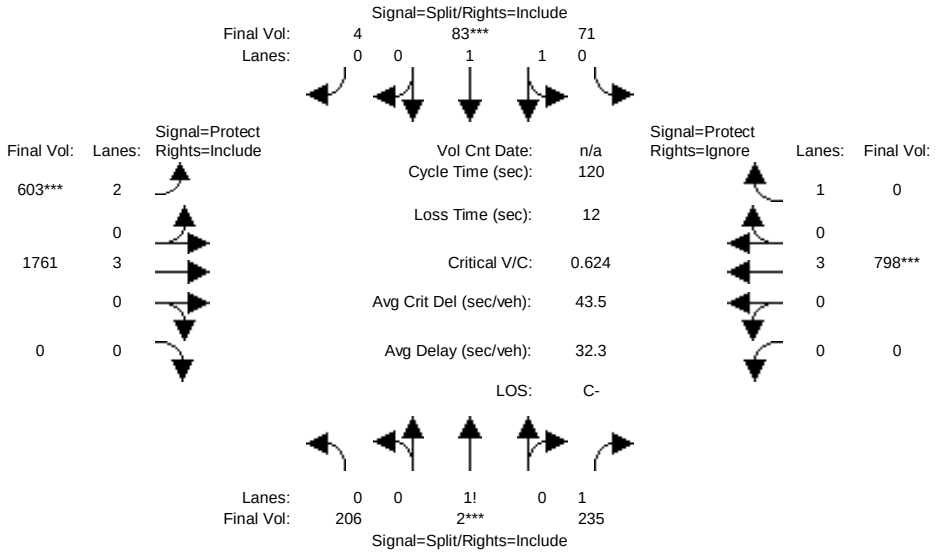
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #2: Stevens Creek Boulevard/SR 85 Ramps East



Street Name:	SR 85 Ramps East						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	0	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	206	2	235	71	83	4	603	1658	0	0	769	560
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	206	2	235	71	83	4	603	1658	0	0	769	560
Added Vol:	0	0	0	0	0	0	0	103	0	0	29	174
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	206	2	235	71	83	4	603	1761	0	0	798	734
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	0.00
PHF Volume:	206	2	235	71	83	4	603	1761	0	0	798	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	206	2	235	71	83	4	603	1761	0	0	798	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	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	206	2	235	71	83	4	603	1761	0	0	798	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.95	0.95	0.95	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	0.63	0.01	1.36	0.90	1.05	0.05	2.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	1108	11	2382	1618	1891	91	3150	5700	0	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.19	0.19	0.10	0.04	0.04	0.04	0.19	0.31	0.00	0.00	0.14	0.00
Crit Moves:		****			****		****				****	
Green Time:	35.2	35.2	35.2	10.0	10.0	10.0	36.3	62.8	0.0	0.0	26.5	0.0
Volume/Cap:	0.63	0.63	0.34	0.53	0.53	0.53	0.63	0.59	0.00	0.00	0.63	0.00
Uniform Del:	36.8	36.8	33.2	52.7	52.7	52.7	36.1	19.7	0.0	0.0	42.3	0.0
IncremntDel:	4.3	4.3	0.7	6.5	6.5	6.5	3.2	0.9	0.0	0.0	2.4	0.0
InitQueuDel:	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	0.00	0.00	1.00	0.00
Delay/Veh:	41.1	41.1	33.9	59.2	59.2	59.2	39.3	20.6	0.0	0.0	44.8	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:	41.1	41.1	33.9	59.2	59.2	59.2	39.3	20.6	0.0	0.0	44.8	0.0
LOS by Move:	D	D	C-	E+	E+	E+	D	C+	A	A	D	A
HCM2kAvgQ:	296	296	135	92	92	92	271	349	0	0	241	0

Note: Queue reported is the distance per lane in feet.

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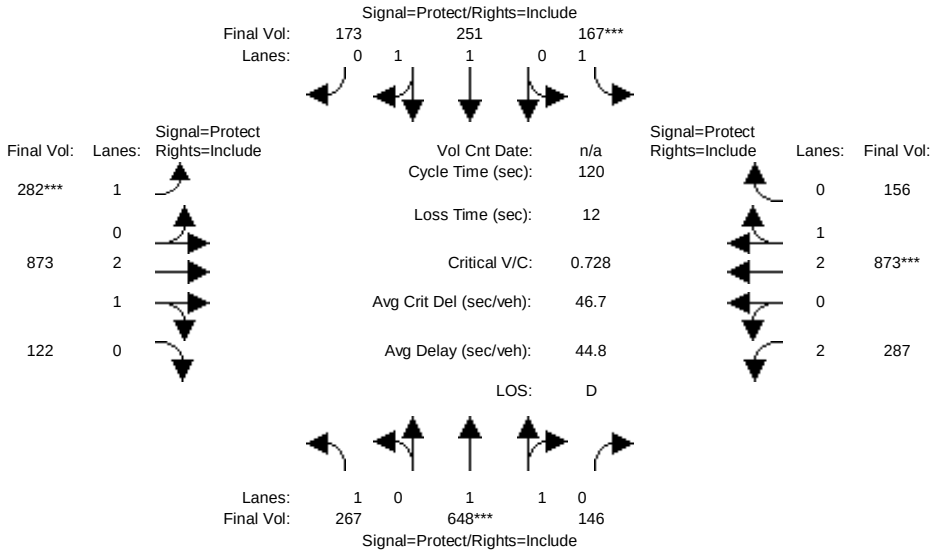
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #3: Stevens Creek Boulevard/Stelling Road



Street Name:	Stelling Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	267	648	133	154	251	173	282	687	122	283	819	152
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	267	648	133	154	251	173	282	687	122	283	819	152
Added Vol:	0	0	13	13	0	0	0	186	0	4	54	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	267	648	146	167	251	173	282	873	122	287	873	156
User Adj:	1.00	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:	267	648	146	167	251	173	282	873	122	287	873	156
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	267	648	146	167	251	173	282	873	122	287	873	156
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	267	648	146	167	251	173	282	873	122	287	873	156
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.99	0.95	0.92	0.99	0.95	0.83	0.99	0.95
Lanes:	1.00	1.62	0.38	1.00	1.16	0.84	1.00	2.62	0.38	2.00	2.53	0.47
Final Sat.:	1750	3019	680	1750	2189	1509	1750	4912	687	3150	4750	849
Capacity Analysis Module:												
Vol/Sat:	0.15	0.21	0.21	0.10	0.11	0.11	0.16	0.18	0.18	0.09	0.18	0.18
Crit Moves:		****		****			****				****	
Green Time:	29.2	35.4	35.4	15.7	21.9	21.9	26.6	37.6	37.6	19.3	30.3	30.3
Volume/Cap:	0.63	0.73	0.73	0.73	0.63	0.63	0.73	0.57	0.57	0.57	0.73	0.73
Uniform Del:	40.5	38.0	38.0	50.1	45.3	45.3	43.4	34.4	34.4	46.5	41.1	41.1
IncremntDel:	6.8	4.3	4.3	18.3	4.4	4.4	11.4	1.3	1.3	4.6	3.3	3.3
InitQueuDel:	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:	47.4	42.2	42.2	68.3	49.6	49.6	54.7	35.7	35.7	51.1	44.4	44.4
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:	47.4	42.2	42.2	68.3	49.6	49.6	54.7	35.7	35.7	51.1	44.4	44.4
LOS by Move:	D	D	D	E	D	D	D-	D+	D+	D-	D	D
HCM2kAvgQ:	255	365	365	199	206	206	294	266	266	164	325	325

Note: Queue reported is the distance per lane in feet.

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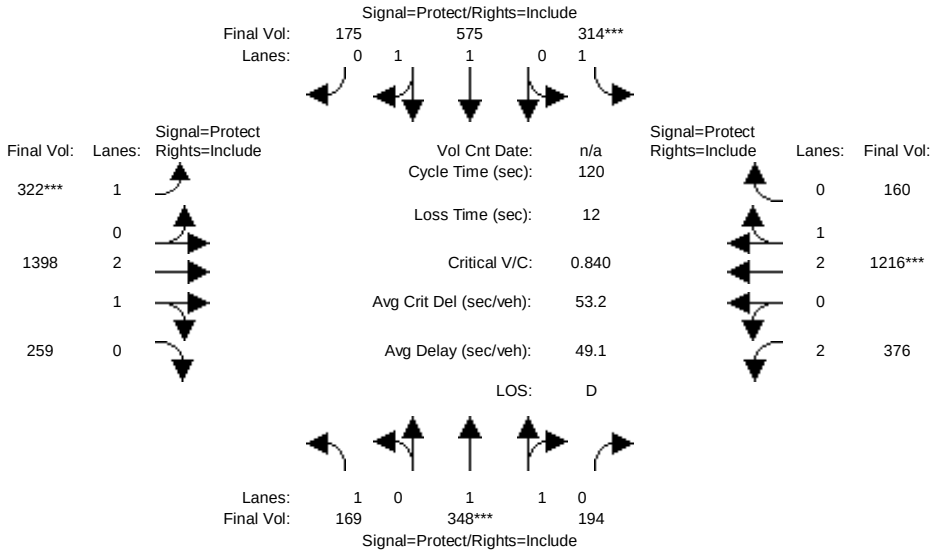
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #3: Stevens Creek Boulevard/Stelling Road



Street Name:	Stelling Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	169	348	187	307	575	175	322	1295	259	361	1013	145
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	169	348	187	307	575	175	322	1295	259	361	1013	145
Added Vol:	0	0	7	7	0	0	0	103	0	15	203	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	169	348	194	314	575	175	322	1398	259	376	1216	160
User Adj:	1.00	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:	169	348	194	314	575	175	322	1398	259	376	1216	160
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	348	194	314	575	175	322	1398	259	376	1216	160
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	169	348	194	314	575	175	322	1398	259	376	1216	160
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	0.98	0.95	0.92	0.99	0.95	0.83	0.99	0.95
Lanes:	1.00	1.26	0.74	1.00	1.52	0.48	1.00	2.51	0.49	2.00	2.64	0.36
Final Sat.:	1750	2375	1324	1750	2836	863	1750	4724	875	3150	4948	651
Capacity Analysis Module:												
Vol/Sat:	0.10	0.15	0.15	0.18	0.20	0.20	0.18	0.30	0.30	0.12	0.25	0.25
Crit Moves:		****		****			****				****	
Green Time:	15.0	20.9	20.9	25.6	31.6	31.6	26.3	43.8	43.8	17.7	35.1	35.1
Volume/Cap:	0.77	0.84	0.84	0.84	0.77	0.77	0.84	0.81	0.81	0.81	0.84	0.84
Uniform Del:	50.8	47.9	47.9	45.2	40.9	40.9	44.8	34.4	34.4	49.6	39.8	39.8
IncremntDel:	22.7	12.5	12.5	19.8	5.9	5.9	19.4	3.6	3.6	14.3	5.4	5.4
InitQueuDel:	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:	73.5	60.4	60.4	65.0	46.8	46.8	64.2	38.0	38.0	63.9	45.2	45.2
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:	73.5	60.4	60.4	65.0	46.8	46.8	64.2	38.0	38.0	63.9	45.2	45.2
LOS by Move:	E	E	E	E	D	D	E	D+	D+	E	D	D
HCM2kAvgQ:	210	311	311	363	367	367	370	511	511	257	462	462

Note: Queue reported is the distance per lane in feet.

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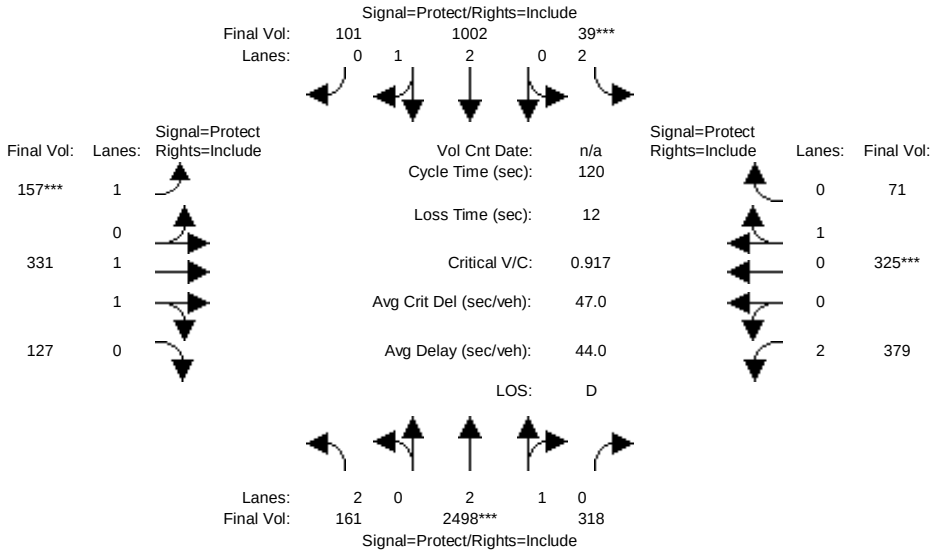
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #4: Sunnyvale Saratoga Road/Remington Drive



Street Name:	Sunnyvale Saratoga Road						Remington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	159	2486	316	39	962	101	157	331	120	372	325	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	159	2486	316	39	962	101	157	331	120	372	325	71
Added Vol:	2	12	2	0	40	0	0	0	7	7	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	161	2498	318	39	1002	101	157	331	127	379	325	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:	161	2498	318	39	1002	101	157	331	127	379	325	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	161	2498	318	39	1002	101	157	331	127	379	325	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:	161	2498	318	39	1002	101	157	331	127	379	325	71
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	0.99	0.95	0.92	0.98	0.95	0.83	0.95	0.95
Lanes:	2.00	2.65	0.35	2.00	2.72	0.28	1.00	1.43	0.57	2.00	0.82	0.18
Final Sat.:	3150	4967	632	3150	5087	513	1750	2673	1026	3150	1477	323
Capacity Analysis Module:												
Vol/Sat:	0.05	0.50	0.50	0.01	0.20	0.20	0.09	0.12	0.12	0.12	0.22	0.22
Crit Moves:		****		****			****				****	
Green Time:	15.9	62.5	62.5	7.0	53.6	53.6	11.2	19.5	19.5	19.0	27.3	27.3
Volume/Cap:	0.39	0.97	0.97	0.21	0.44	0.44	0.97	0.76	0.76	0.76	0.97	0.97
Uniform Del:	47.6	27.7	27.7	53.9	22.9	22.9	54.2	48.0	48.0	48.3	45.9	45.9
IncremntDel:	2.7	10.4	10.4	2.6	0.6	0.6	62.0	8.8	8.8	10.5	36.6	36.6
InitQueuDel:	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:	50.3	38.1	38.1	56.5	23.4	23.4	116.3	56.8	56.8	58.8	82.5	82.5
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:	50.3	38.1	38.1	56.5	23.4	23.4	116.3	56.8	56.8	58.8	82.5	82.5
LOS by Move:	D	D+	D+	E+	C	C	F	E+	E+	E+	F	F
HCM2kAvgQ:	89	993	993	25	234	234	248	250	250	245	504	504

Note: Queue reported is the distance per lane in feet.

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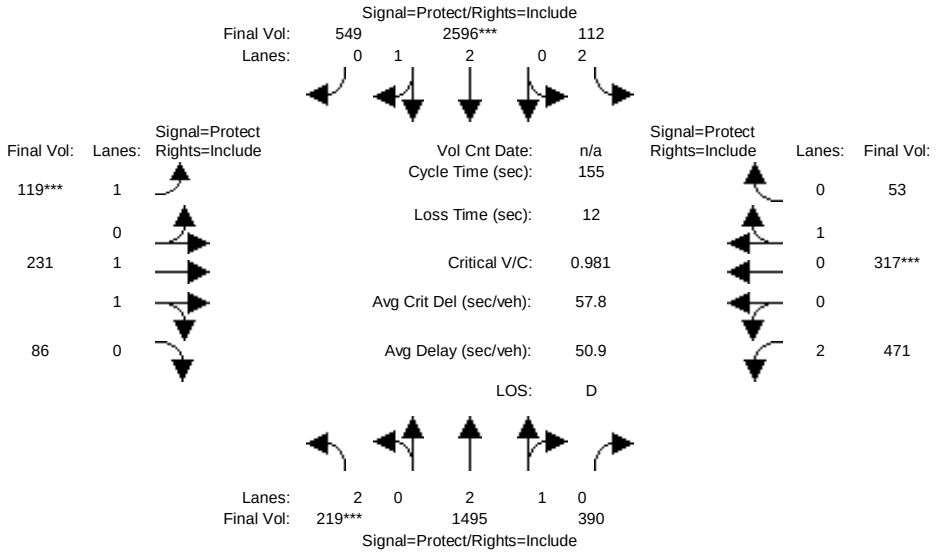
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #4: Sunnyvale Saratoga Road/Remington Drive



Street Name:	Sunnyvale Saratoga Road						Remington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	212	1451	383	112	2574	549	119	231	82	467	317	53
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	212	1451	383	112	2574	549	119	231	82	467	317	53
Added Vol:	7	44	7	0	22	0	0	0	4	4	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	219	1495	390	112	2596	549	119	231	86	471	317	53
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	219	1495	390	112	2596	549	119	231	86	471	317	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	219	1495	390	112	2596	549	119	231	86	471	317	53
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	219	1495	390	112	2596	549	119	231	86	471	317	53
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	0.99	0.95	0.92	0.98	0.95	0.83	0.95	0.95
Lanes:	2.00	2.36	0.64	2.00	2.46	0.54	1.00	1.44	0.56	2.00	0.86	0.14
Final Sat.:	3150	4440	1158	3150	4621	977	1750	2695	1004	3150	1542	258
Capacity Analysis Module:												
Vol/Sat:	0.07	0.34	0.34	0.04	0.56	0.56	0.07	0.09	0.09	0.15	0.21	0.21
Crit Moves:	****				****		****				****	
Green Time:	11.0	88.0	88.0	11.8	88.8	88.8	10.7	15.8	15.8	27.5	32.5	32.5
Volume/Cap:	0.98	0.59	0.59	0.47	0.98	0.98	0.98	0.84	0.84	0.84	0.98	0.98
Uniform Del:	71.9	21.9	21.9	68.6	32.3	32.3	72.0	68.4	68.4	61.7	60.9	60.9
IncremntDel:	55.5	0.8	0.8	6.4	12.0	12.0	76.7	20.1	20.1	14.4	41.8	41.8
InitQueuDel:	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:	127.4	22.7	22.7	75.0	44.3	44.3	148.7	88.5	88.5	76.1	103	102.7
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:	127.4	22.7	22.7	75.0	44.3	44.3	148.7	88.5	88.5	76.1	103	102.7
LOS by Move:	F	C+	C+	E	D	D	F	F	F	E-	F	F
HCM2kAvgQ:	240	485	485	90	1378	1378	235	247	247	384	581	581

Note: Queue reported is the distance per lane in feet.

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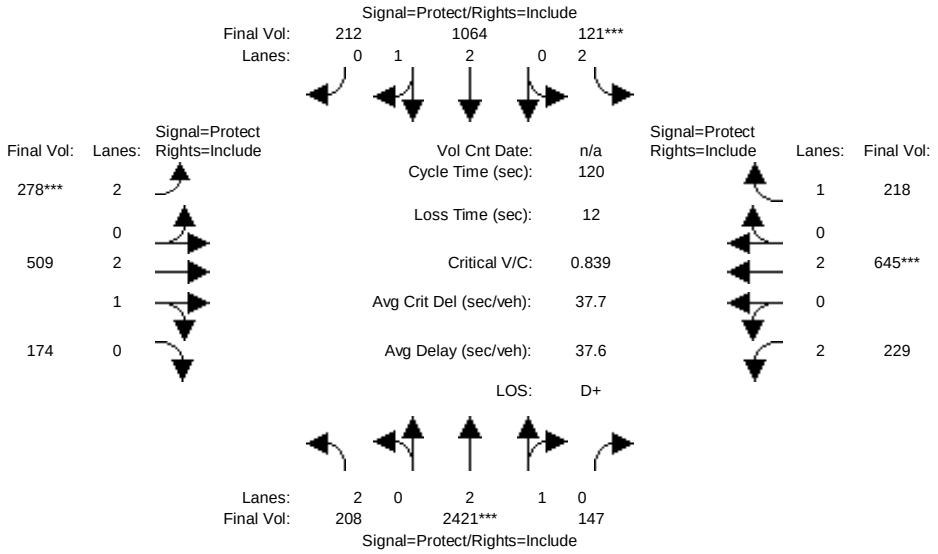
Intersection #5: Sunnyvale Saratoga Road/Fremont Avenue



Street Name:	Sunnyvale Saratoga Road						Fremont Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	204	2409	147	108	1024	212	278	509	161	229	645	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
Initial Bse:	204	2409	147	108	1024	212	278	509	161	229	645	214
Added Vol:	4	12	0	13	40	0	0	0	13	0	0	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	208	2421	147	121	1064	212	278	509	174	229	645	218
User Adj:	1.00	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:	208	2421	147	121	1064	212	278	509	174	229	645	218
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	208	2421	147	121	1064	212	278	509	174	229	645	218
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	208	2421	147	121	1064	212	278	509	174	229	645	218
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.98	0.95	0.83	0.99	0.95	0.83	0.99	0.95	0.83	1.00	0.92
Lanes:	2.00	2.82	0.18	2.00	2.48	0.52	2.00	2.21	0.79	2.00	2.00	1.00
Final Sat.:	3150	5279	321	3150	4668	930	3150	4171	1426	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.46	0.46	0.04	0.23	0.23	0.09	0.12	0.12	0.07	0.17	0.12
Crit Moves:		****			****			****			****	
Green Time:	16.1	64.6	64.6	7.0	55.5	55.5	12.4	22.8	22.8	13.6	23.9	23.9
Volume/Cap:	0.49	0.85	0.85	0.66	0.49	0.49	0.85	0.64	0.64	0.64	0.85	0.62
Uniform Del:	48.2	23.6	23.6	55.3	22.4	22.4	52.9	44.8	44.8	50.9	46.3	43.9
IncremntDel:	4.1	3.3	3.3	17.0	0.7	0.7	23.4	3.0	3.0	8.6	11.6	8.2
InitQueuDel:	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:	52.2	26.8	26.8	72.3	23.1	23.1	76.3	47.8	47.8	59.5	57.9	52.1
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:	52.2	26.8	26.8	72.3	23.1	23.1	76.3	47.8	47.8	59.5	57.9	52.1
LOS by Move:	D-	C	C	E	C	C	E-	D	D	E+	E+	D-
HCM2kAvgQ:	120	734	734	96	275	275	215	219	219	149	353	219

Note: Queue reported is the distance per lane in feet.

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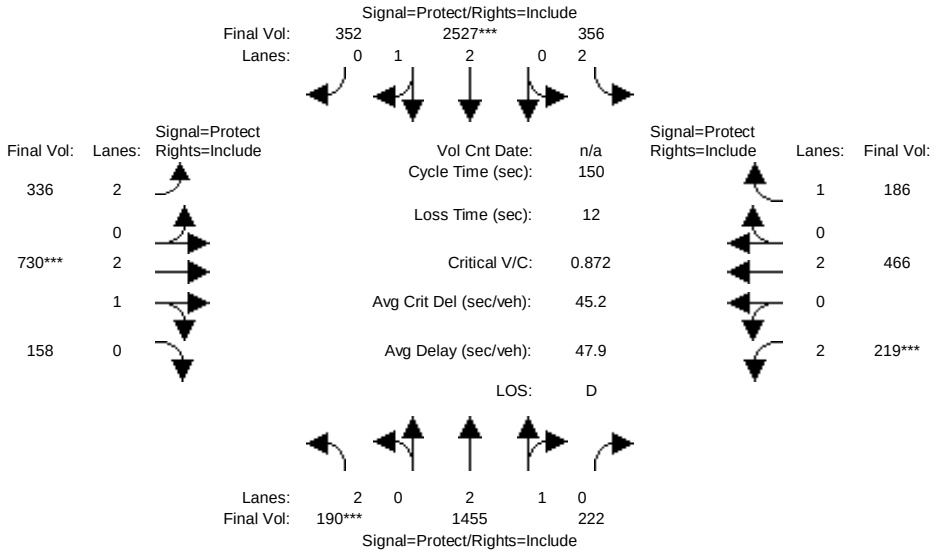
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #5: Sunnyvale Saratoga Road/Fremont Avenue



Street Name:	Sunnyvale Saratoga Road						Fremont Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	175	1411	222	349	2505	352	336	730	151	219	466	171
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	175	1411	222	349	2505	352	336	730	151	219	466	171
Added Vol:	15	44	0	7	22	0	0	0	7	0	0	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	190	1455	222	356	2527	352	336	730	158	219	466	186
User Adj:	1.00	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:	190	1455	222	356	2527	352	336	730	158	219	466	186
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	190	1455	222	356	2527	352	336	730	158	219	466	186
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	190	1455	222	356	2527	352	336	730	158	219	466	186
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	0.99	0.95	0.83	0.99	0.95	0.83	1.00	0.92
Lanes:	2.00	2.59	0.41	2.00	2.62	0.38	2.00	2.45	0.55	2.00	2.00	1.00
Final Sat.:	3150	4858	741	3150	4914	685	3150	4602	996	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.30	0.30	0.11	0.51	0.51	0.11	0.16	0.16	0.07	0.12	0.11
Crit Moves:	****				****			****			****	
Green Time:	10.4	71.7	71.7	27.1	88.4	88.4	18.2	27.3	27.3	12.0	21.0	21.0
Volume/Cap:	0.87	0.63	0.63	0.63	0.87	0.87	0.88	0.87	0.87	0.87	0.88	0.76
Uniform Del:	69.2	29.2	29.2	56.8	26.0	26.0	64.8	59.7	59.7	68.3	63.2	62.1
IncremntDel:	35.1	1.1	1.1	5.2	3.5	3.5	23.5	10.3	10.3	31.6	18.2	19.7
InitQueuDel:	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:	104.2	30.3	30.3	62.0	29.5	29.5	88.3	69.9	69.9	99.9	81.4	81.8
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:	104.2	30.3	30.3	62.0	29.5	29.5	88.3	69.9	69.9	99.9	81.4	81.8
LOS by Move:	F	C	C	E	C	C	F	E	E	F	F	F
HCM2kAvgQ:	190	482	482	245	992	992	297	405	405	212	331	263

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
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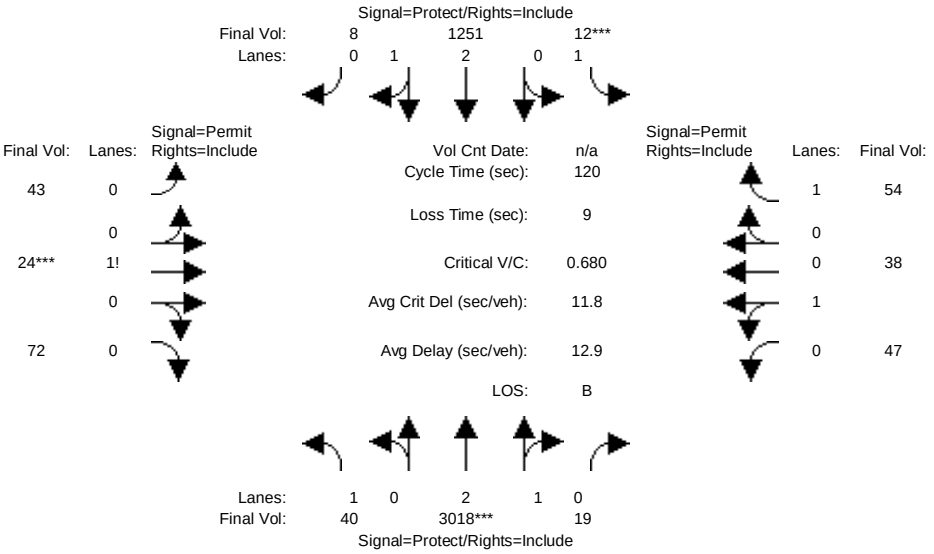
Intersection #6: Sunnyvale Saratoga Road/Cheyenne Drive



Street Name:	Sunnyvale Saratoga Road						Cheyenne Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	40	3002	19	12	1198	8	43	24	72	47	38	54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	40	3002	19	12	1198	8	43	24	72	47	38	54
Added Vol:	0	16	0	0	53	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	40	3018	19	12	1251	8	43	24	72	47	38	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:	40	3018	19	12	1251	8	43	24	72	47	38	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	3018	19	12	1251	8	43	24	72	47	38	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:	40	3018	19	12	1251	8	43	24	72	47	38	54
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.92	0.92	0.95	0.95	0.92
Lanes:	1.00	2.98	0.02	1.00	2.98	0.02	0.31	0.17	0.52	0.55	0.45	1.00
Final Sat.:	1750	5565	35	1750	5564	36	541	302	906	995	805	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.54	0.54	0.01	0.22	0.22	0.08	0.08	0.08	0.05	0.05	0.03
Crit Moves:		****		****				****				
Green Time:	20.1	90.7	90.7	7.0	77.6	77.6	13.3	13.3	13.3	13.3	13.3	13.3
Volume/Cap:	0.14	0.72	0.72	0.12	0.35	0.35	0.72	0.72	0.72	0.43	0.43	0.28
Uniform Del:	42.5	7.8	7.8	53.6	9.7	9.7	51.5	51.5	51.5	49.8	49.8	49.0
IncremntDel:	1.0	1.1	1.1	2.3	0.3	0.3	20.3	20.3	20.3	6.6	6.6	3.6
InitQueuDel:	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:	43.5	8.9	8.9	55.9	9.9	9.9	71.9	71.9	71.9	56.4	56.4	52.5
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:	43.5	8.9	8.9	55.9	9.9	9.9	71.9	71.9	71.9	56.4	56.4	52.5
LOS by Move:	D	A	A	E+	A	A	E	E	E	E+	E+	D-
HCM2kAvgQ:	35	518	518	14	176	176	171	171	171	88	88	54

Note: Queue reported is the distance per lane in feet.

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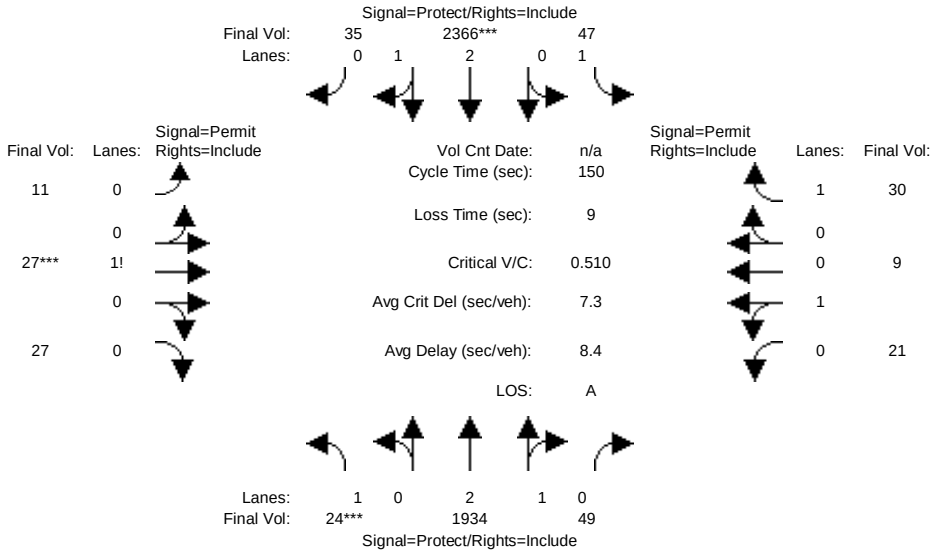
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #6: Sunnyvale Saratoga Road/Cheyenne Drive



Street Name:	Sunnyvale Saratoga Road						Cheyenne Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	24	1876	49	47	2337	35	11	27	27	21	9	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	24	1876	49	47	2337	35	11	27	27	21	9	30
Added Vol:	0	58	0	0	29	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	24	1934	49	47	2366	35	11	27	27	21	9	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:	24	1934	49	47	2366	35	11	27	27	21	9	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	1934	49	47	2366	35	11	27	27	21	9	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:	24	1934	49	47	2366	35	11	27	27	21	9	30
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.92	0.92	0.95	0.95	0.92
Lanes:	1.00	2.92	0.08	1.00	2.95	0.05	0.17	0.42	0.41	0.70	0.30	1.00
Final Sat.:	1750	5461	138	1750	5518	82	296	727	727	1260	540	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.35	0.35	0.03	0.43	0.43	0.04	0.04	0.04	0.02	0.02	0.02
Crit Moves:	****				****			****				
Green Time:	7.0	115	115.1	15.2	123	123.3	10.7	10.7	10.7	10.7	10.7	10.7
Volume/Cap:	0.29	0.46	0.46	0.27	0.52	0.52	0.52	0.52	0.52	0.23	0.23	0.24
Uniform Del:	69.1	6.3	6.3	62.3	4.2	4.2	67.2	67.2	67.2	65.8	65.8	65.8
IncremntDel:	8.9	0.4	0.4	3.6	0.4	0.4	14.7	14.7	14.7	4.2	4.2	4.5
InitQueuDel:	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:	78.0	6.6	6.6	65.9	4.6	4.6	81.9	81.9	81.9	70.0	70.0	70.3
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:	78.0	6.6	6.6	65.9	4.6	4.6	81.9	81.9	81.9	70.0	70.0	70.3
LOS by Move:	E-	A	A	E	A	A	F	F	F	E	E	E
HCM2kAvgQ:	36	273	273	58	291	291	95	95	95	39	39	40

Note: Queue reported is the distance per lane in feet.

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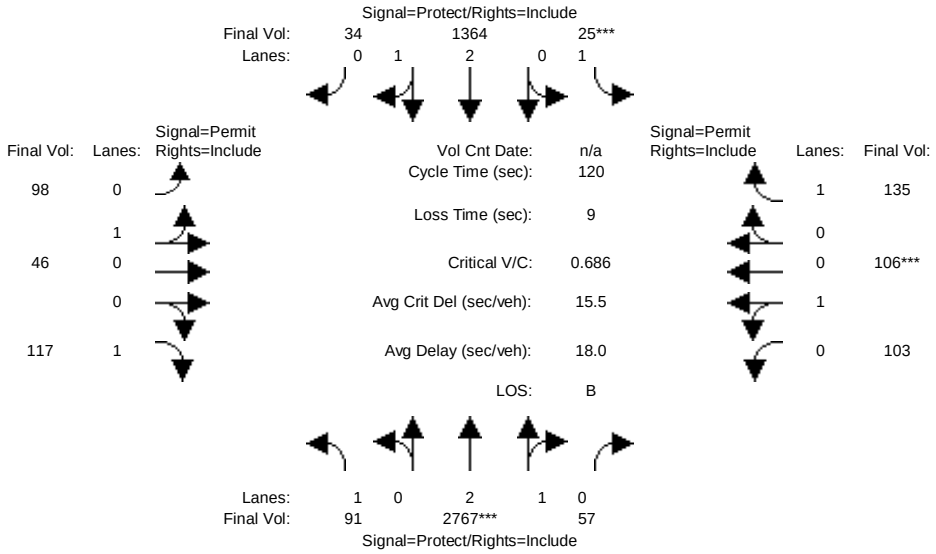
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #7: Sunnyvale Saratoga Road/Alberta Avenue



Street Name:	Sunnyvale Saratoga Road						Alberta Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	91	2751	57	25	1311	34	98	46	117	103	106	135
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	2751	57	25	1311	34	98	46	117	103	106	135
Added Vol:	0	16	0	0	53	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	91	2767	57	25	1364	34	98	46	117	103	106	135
User Adj:	1.00	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	2767	57	25	1364	34	98	46	117	103	106	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	2767	57	25	1364	34	98	46	117	103	106	135
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	2767	57	25	1364	34	98	46	117	103	106	135
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.94	0.06	1.00	2.92	0.08	0.68	0.32	1.00	0.49	0.51	1.00
Final Sat.:	1750	5487	113	1750	5464	136	1225	575	1750	887	913	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.50	0.50	0.01	0.25	0.25	0.08	0.08	0.07	0.12	0.12	0.08
Crit Moves:		****		****							****	
Green Time:	17.3	84.5	84.5	7.0	74.2	74.2	19.5	19.5	19.5	19.5	19.5	19.5
Volume/Cap:	0.36	0.72	0.72	0.24	0.40	0.40	0.49	0.49	0.41	0.72	0.72	0.48
Uniform Del:	46.3	10.6	10.6	54.0	11.6	11.6	45.8	45.8	45.1	47.6	47.6	45.6
IncremntDel:	3.9	1.1	1.1	5.6	0.4	0.4	5.9	5.9	4.4	14.0	14.0	5.6
InitQueuDel:	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:	50.3	11.7	11.7	59.6	12.0	12.0	51.6	51.6	49.5	61.6	61.6	51.3
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:	50.3	11.7	11.7	59.6	12.0	12.0	51.6	51.6	49.5	61.6	61.6	51.3
LOS by Move:	D	B+	B+	E+	B	B	D-	D-	D	E	E	D-
HCM2kAvgQ:	88	536	536	29	218	218	139	139	112	227	227	133

Note: Queue reported is the distance per lane in feet.

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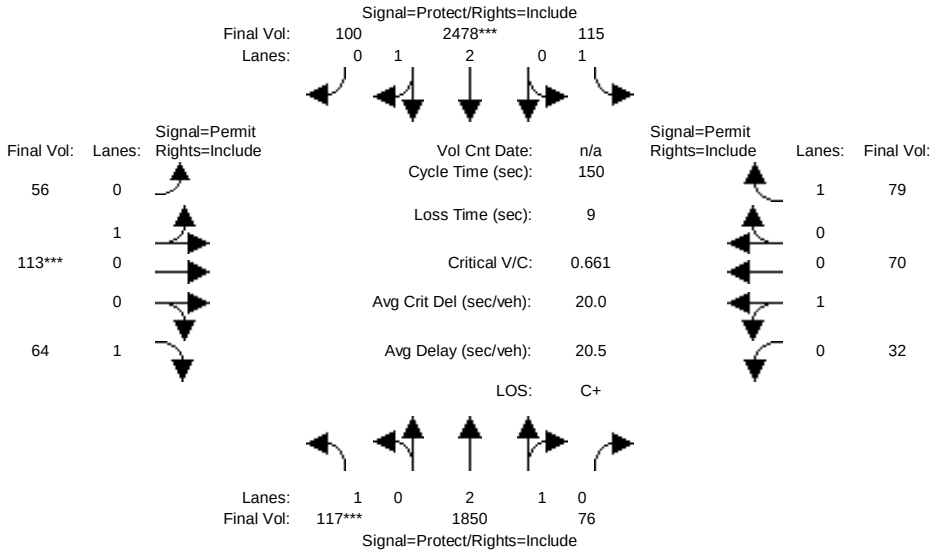
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #7: Sunnyvale Saratoga Road/Alberta Avenue



Street Name:	Sunnyvale Saratoga Road						Alberta Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	117	1792	76	115	2449	100	56	113	64	32	70	79
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	117	1792	76	115	2449	100	56	113	64	32	70	79
Added Vol:	0	58	0	0	29	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	117	1850	76	115	2478	100	56	113	64	32	70	79
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	117	1850	76	115	2478	100	56	113	64	32	70	79
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	117	1850	76	115	2478	100	56	113	64	32	70	79
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	117	1850	76	115	2478	100	56	113	64	32	70	79
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.88	0.12	1.00	2.88	0.12	0.33	0.67	1.00	0.31	0.69	1.00
Final Sat.:	1750	5379	221	1750	5382	217	596	1204	1750	565	1235	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.34	0.34	0.07	0.46	0.46	0.09	0.09	0.04	0.06	0.06	0.05
Crit Moves:	****				****			****				
Green Time:	15.2	100	100.5	19.2	105	104.5	21.3	21.3	21.3	21.3	21.3	21.3
Volume/Cap:	0.66	0.51	0.51	0.51	0.66	0.66	0.66	0.66	0.26	0.40	0.40	0.32
Uniform Del:	64.9	12.5	12.5	61.0	12.8	12.8	60.9	60.9	57.3	58.5	58.5	57.8
IncremntDel:	17.7	0.5	0.5	8.2	0.9	0.9	12.7	12.7	2.5	4.6	4.6	3.3
InitQueuDel:	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:	82.7	13.0	13.0	69.2	13.7	13.7	73.6	73.6	59.8	63.1	63.1	61.1
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:	82.7	13.0	13.0	69.2	13.7	13.7	73.6	73.6	59.8	63.1	63.1	61.1
LOS by Move:	F	B	B	E	B	B	E	E	E+	E	E	E
HCM2kAvgQ:	168	369	369	146	559	559	218	218	73	118	118	92

Note: Queue reported is the distance per lane in feet.

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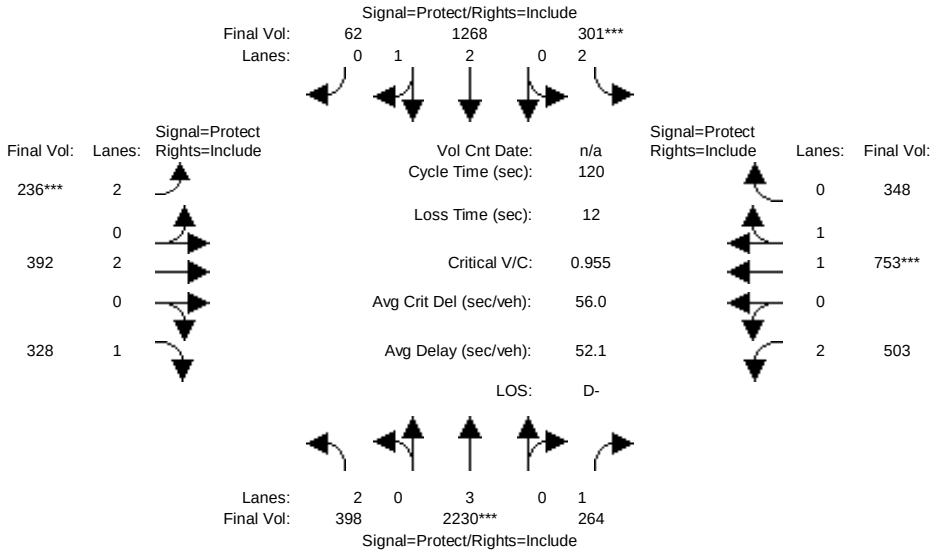
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #8: De Anza Boulevard/Homestead Road



Street Name:	De Anza Boulevard						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	394	2226	264	261	1255	62	236	379	315	503	749	336
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	394	2226	264	261	1255	62	236	379	315	503	749	336
Added Vol:	4	4	0	40	13	0	0	13	13	0	4	12
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	398	2230	264	301	1268	62	236	392	328	503	753	348
User Adj:	1.00	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:	398	2230	264	301	1268	62	236	392	328	503	753	348
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	398	2230	264	301	1268	62	236	392	328	503	753	348
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	398	2230	264	301	1268	62	236	392	328	503	753	348
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.98	0.95	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	2.00	3.00	1.00	2.00	2.85	0.15	2.00	2.00	1.00	2.00	1.35	0.65
Final Sat.:	3150	5700	1750	3150	5339	261	3150	3800	1750	3150	2530	1169
Capacity Analysis Module:												
Vol/Sat:	0.13	0.39	0.15	0.10	0.24	0.24	0.07	0.10	0.19	0.16	0.30	0.30
Crit Moves:		****		****			****				****	
Green Time:	21.2	49.2	49.2	12.0	39.9	39.9	9.4	25.3	25.3	21.5	37.4	37.4
Volume/Cap:	0.71	0.95	0.37	0.95	0.71	0.71	0.95	0.49	0.89	0.89	0.95	0.95
Uniform Del:	46.5	34.3	24.6	53.7	35.0	35.0	55.1	41.7	46.0	48.1	40.5	40.5
IncremntDel:	7.6	10.7	1.5	40.4	2.4	2.4	46.7	2.1	25.9	18.6	17.7	17.7
InitQueuDel:	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:	54.1	45.0	26.1	94.1	37.4	37.4	101.8	43.8	71.9	66.7	58.1	58.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.1	45.0	26.1	94.1	37.4	37.4	101.8	43.8	71.9	66.7	58.1	58.1
LOS by Move:	D-	D	C	F	D+	D+	F	D	E	E	E+	E+
HCM2kAvgQ:	241	793	180	257	386	386	214	167	400	353	634	634

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
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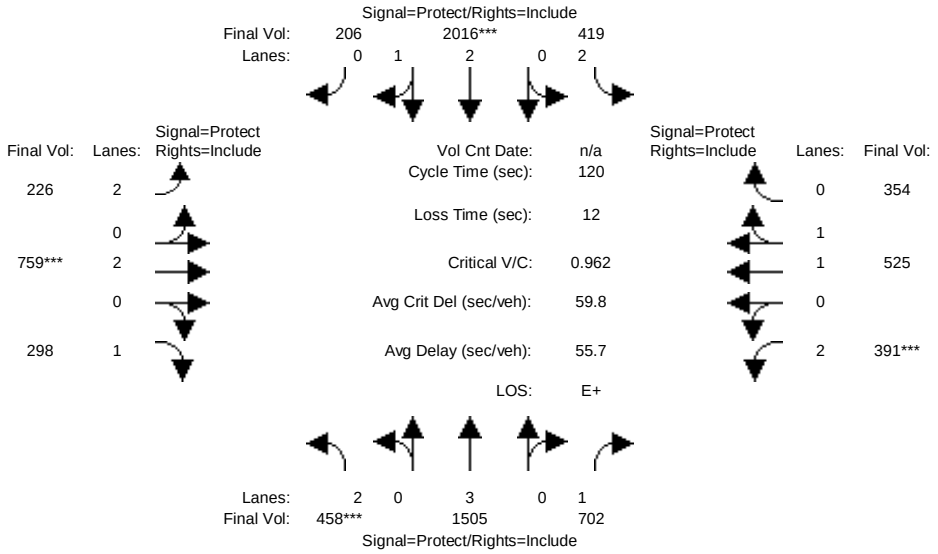
Intersection #8: De Anza Boulevard/Homestead Road



Street Name:	De Anza Boulevard						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	443	1490	702	397	2009	206	226	752	291	391	510	310
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	443	1490	702	397	2009	206	226	752	291	391	510	310
Added Vol:	15	15	0	22	7	0	0	7	7	0	15	44
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	458	1505	702	419	2016	206	226	759	298	391	525	354
User Adj:	1.00	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:	458	1505	702	419	2016	206	226	759	298	391	525	354
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	458	1505	702	419	2016	206	226	759	298	391	525	354
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	458	1505	702	419	2016	206	226	759	298	391	525	354
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.99	0.95	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	2.00	3.00	1.00	2.00	2.71	0.29	2.00	2.00	1.00	2.00	1.17	0.83
Final Sat.:	3150	5700	1750	3150	5080	519	3150	3800	1750	3150	2209	1489
Capacity Analysis Module:												
Vol/Sat:	0.15	0.26	0.40	0.13	0.40	0.40	0.07	0.20	0.17	0.12	0.24	0.24
Crit Moves:	****				****			****			****	
Green Time:	18.1	50.8	50.8	16.8	49.5	49.5	9.4	24.9	24.9	15.5	31.0	31.0
Volume/Cap:	0.96	0.62	0.95	0.95	0.96	0.96	0.92	0.96	0.82	0.96	0.92	0.92
Uniform Del:	50.6	27.1	33.3	51.1	34.3	34.3	54.9	47.1	45.4	52.0	43.3	43.3
IncremntDel:	32.9	1.2	22.6	31.6	11.8	11.8	39.8	24.1	18.4	36.1	15.2	15.2
InitQueuDel:	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:	83.5	28.4	55.9	82.7	46.1	46.1	94.8	71.2	63.8	88.1	58.4	58.4
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:	83.5	28.4	55.9	82.7	46.1	46.1	94.8	71.2	63.8	88.1	58.4	58.4
LOS by Move:	F	C	E+	F	D	D	F	E	E	F	E+	E+
HCM2kAvgQ:	360	367	799	329	813	813	199	464	341	318	502	502

Note: Queue reported is the distance per lane in feet.

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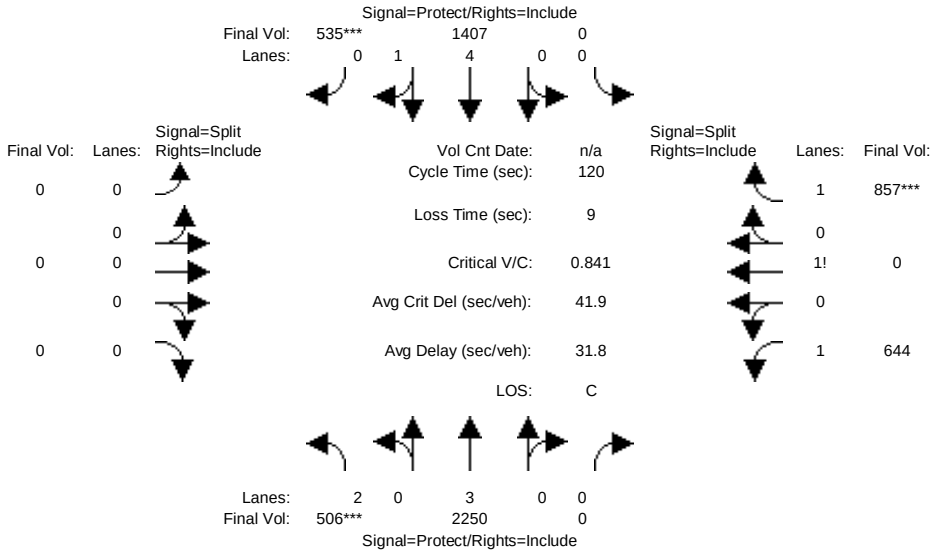
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #9: De Anza Boulevard/I-280 Ramps North



Street Name:	De Anza Boulevard						I-280 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	480	2242	0	0	1380	535	0	0	0	644	0	857
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	480	2242	0	0	1380	535	0	0	0	644	0	857
Added Vol:	26	8	0	0	27	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	506	2250	0	0	1407	535	0	0	0	644	0	857
User Adj:	1.00	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:	506	2250	0	0	1407	535	0	0	0	644	0	857
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	506	2250	0	0	1407	535	0	0	0	644	0	857
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	506	2250	0	0	1407	535	0	0	0	644	0	857
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	0.00	0.00	4.00	1.00	0.00	0.00	0.00	1.43	0.00	1.57
Final Sat.:	3150	5700	0	0	7600	1750	0	0	0	2501	0	2749
Capacity Analysis Module:												
Vol/Sat:	0.16	0.39	0.00	0.00	0.19	0.31	0.00	0.00	0.00	0.26	0.00	0.31
Crit Moves:	****					****						****
Green Time:	22.9	66.5	0.0	0.0	43.6	43.6	0.0	0.0	0.0	44.5	0.0	44.5
Volume/Cap:	0.84	0.71	0.00	0.00	0.51	0.84	0.00	0.00	0.00	0.69	0.00	0.84
Uniform Del:	46.8	19.7	0.0	0.0	29.8	35.0	0.0	0.0	0.0	32.0	0.0	34.5
IncremntDel:	13.4	1.4	0.0	0.0	0.5	3.9	0.0	0.0	0.0	1.9	0.0	5.0
InitQueuDel:	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	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	60.1	21.1	0.0	0.0	30.3	38.9	0.0	0.0	0.0	33.9	0.0	39.5
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:	60.1	21.1	0.0	0.0	30.3	38.9	0.0	0.0	0.0	33.9	0.0	39.5
LOS by Move:	E	C+	A	A	C	D+	A	A	A	C-	A	D
HCM2kAvgQ:	271	488	0	0	254	546	0	0	0	398	0	554

Note: Queue reported is the distance per lane in feet.

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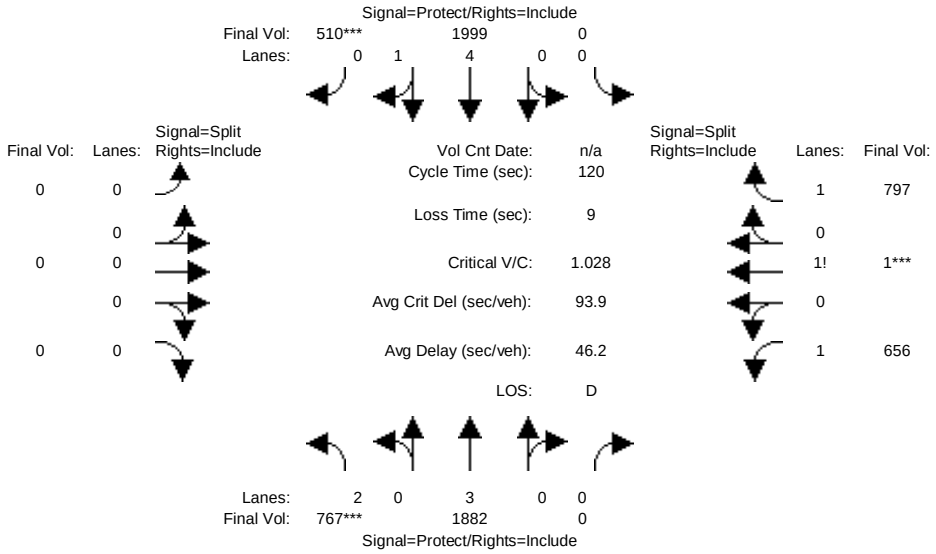
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #9: De Anza Boulevard/I-280 Ramps North



Street Name:	De Anza Boulevard						I-280 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	35	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	669	1853	0	0	1984	510	0	0	0	656	1	797
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	669	1853	0	0	1984	510	0	0	0	656	1	797
Added Vol:	98	29	0	0	15	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	767	1882	0	0	1999	510	0	0	0	656	1	797
User Adj:	1.00	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:	767	1882	0	0	1999	510	0	0	0	656	1	797
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	767	1882	0	0	1999	510	0	0	0	656	1	797
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	767	1882	0	0	1999	510	0	0	0	656	1	797
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	2.00	3.00	0.00	0.00	4.00	1.00	0.00	0.00	0.00	1.45	0.01	1.54
Final Sat.:	3150	5700	0	0	7600	1750	0	0	0	2539	2	2709
Capacity Analysis Module:												
Vol/Sat:	0.24	0.33	0.00	0.00	0.26	0.29	0.00	0.00	0.00	0.26	0.42	0.29
Crit Moves:	****					****					****	
Green Time:	35.0	66.3	0.0	0.0	31.3	31.3	0.0	0.0	0.0	44.7	44.7	44.7
Volume/Cap:	0.83	0.60	0.00	0.00	1.01	1.12	0.00	0.00	0.00	0.69	1.12	0.79
Uniform Del:	39.8	17.9	0.0	0.0	44.3	44.3	0.0	0.0	0.0	31.9	37.7	33.5
IncremntDel:	8.8	0.8	0.0	0.0	19.9	59.2	0.0	0.0	0.0	1.9	63.4	3.6
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	48.6	18.8	0.0	0.0	64.3	103.6	0.0	0.0	0.0	33.8	101	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:	48.6	18.8	0.0	0.0	64.3	103.6	0.0	0.0	0.0	33.8	101	37.0
LOS by Move:	D	B-	A	A	E	F	A	A	A	C-	F	D+
HCM2kAvgQ:	442	395	0	0	620	778	0	0	0	399	1067	495

Note: Queue reported is the distance per lane in feet.

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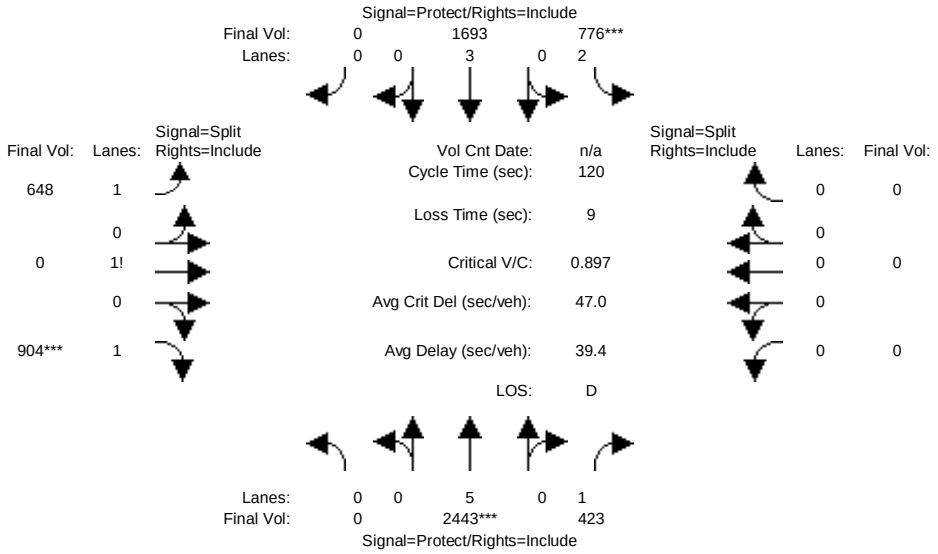
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #10: De Anza Boulevard/I-280 Ramps South



Street Name:	De Anza Boulevard						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	7	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	2409	423	776	1666	0	648	0	795	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2409	423	776	1666	0	648	0	795	0	0	0
Added Vol:	0	34	0	0	27	0	0	0	109	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2443	423	776	1693	0	648	0	904	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	2443	423	776	1693	0	648	0	904	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2443	423	776	1693	0	648	0	904	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	2443	423	776	1693	0	648	0	904	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	5.00	1.00	2.00	3.00	0.00	1.42	0.00	1.58	0.00	0.00	0.00
Final Sat.:	0	9500	1750	3150	5700	0	2481	0	2769	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.26	0.24	0.25	0.30	0.00	0.26	0.00	0.33	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green Time:	0.0	34.4	34.4	32.9	67.3	0.0	43.7	0.0	43.7	0.0	0.0	0.0
Volume/Cap:	0.00	0.90	0.84	0.90	0.53	0.00	0.72	0.00	0.90	0.00	0.00	0.00
Uniform Del:	0.0	41.1	40.3	41.9	16.4	0.0	32.9	0.0	36.1	0.0	0.0	0.0
IncremntDel:	0.0	5.2	15.8	14.0	0.6	0.0	2.1	0.0	7.8	0.0	0.0	0.0
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	46.3	56.1	55.9	17.1	0.0	35.0	0.0	43.8	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:	0.0	46.3	56.1	55.9	17.1	0.0	35.0	0.0	43.8	0.0	0.0	0.0
LOS by Move:	A	D	E+	E+	B	A	C-	A	D	A	A	A
HCM2kAvgQ:	0	518	458	478	328	0	414	0	624	0	0	0

Note: Queue reported is the distance per lane in feet.

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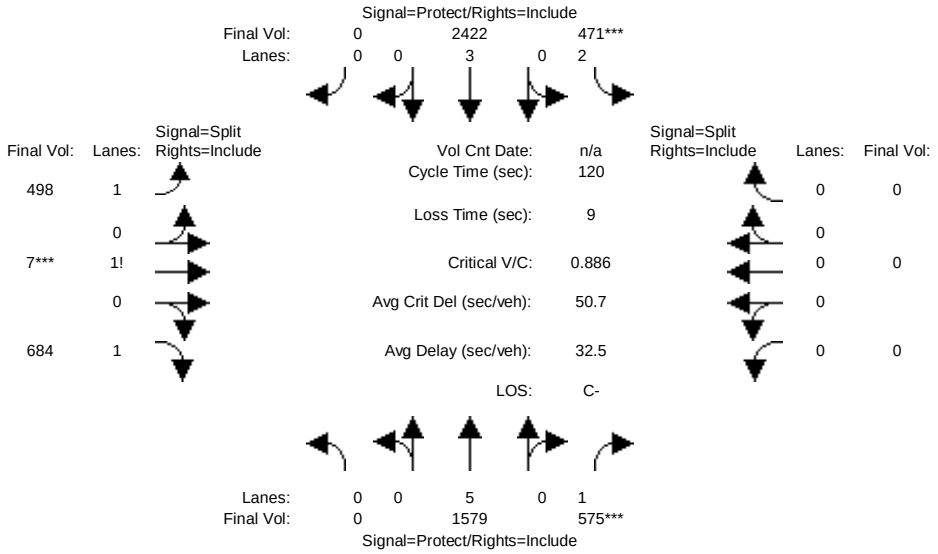
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #10: De Anza Boulevard/I-280 Ramps South



Street Name:	De Anza Boulevard						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	7	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1452	575	471	2407	0	498	7	624	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1452	575	471	2407	0	498	7	624	0	0	0
Added Vol:	0	127	0	0	15	0	0	0	60	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1579	575	471	2422	0	498	7	684	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	1579	575	471	2422	0	498	7	684	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1579	575	471	2422	0	498	7	684	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	1579	575	471	2422	0	498	7	684	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92
Lanes:	0.00	5.00	1.00	2.00	3.00	0.00	1.42	0.01	1.57	0.00	0.00	0.00
Final Sat.:	0	9500	1750	3150	5700	0	2479	20	2751	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.17	0.33	0.15	0.42	0.00	0.20	0.34	0.25	0.00	0.00	0.00
Crit Moves:			****	****				****				
Green Time:	0.0	44.5	44.5	20.2	64.7	0.0	46.3	46.3	46.3	0.0	0.0	0.0
Volume/Cap:	0.00	0.45	0.89	0.89	0.79	0.00	0.52	0.89	0.64	0.00	0.00	0.00
Uniform Del:	0.0	28.5	35.4	48.8	22.1	0.0	28.3	34.4	30.1	0.0	0.0	0.0
IncremntDel:	0.0	0.4	16.4	19.2	2.1	0.0	0.9	8.9	1.8	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	28.9	51.8	67.9	24.3	0.0	29.2	43.3	31.9	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:	0.0	28.9	51.8	67.9	24.3	0.0	29.2	43.3	31.9	0.0	0.0	0.0
LOS by Move:	A	C	D-	E	C	A	C	D	C	A	A	A
HCM2kAvgQ:	0	219	616	242	550	0	271	635	365	0	0	0

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
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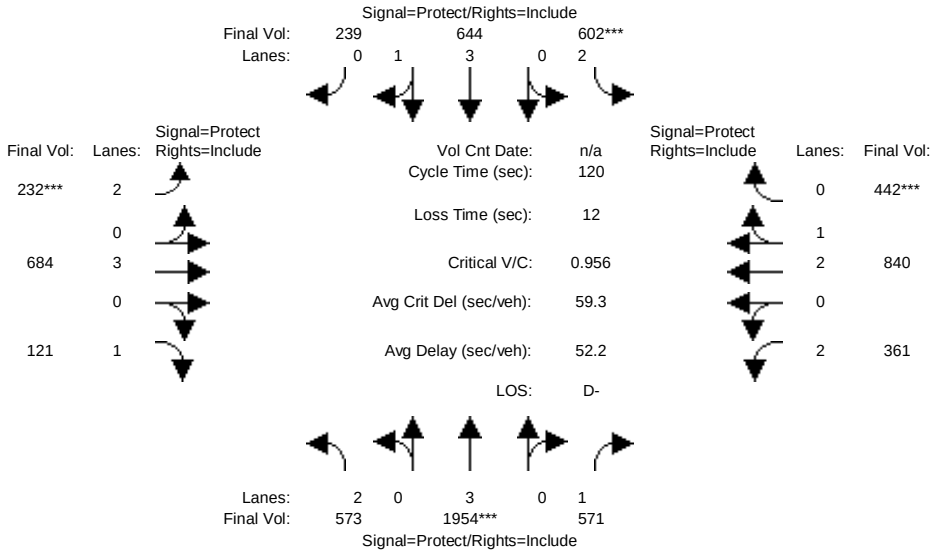
Intersection #11: De Anza Boulevard/Stevens Creek Boulevard



Street Name:	De Anza Boulevard						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	573	1954	312	440	644	239	232	471	121	285	778	400
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	573	1954	312	440	644	239	232	471	121	285	778	400
Added Vol:	0	0	259	162	0	0	0	213	0	76	62	42
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	573	1954	571	602	644	239	232	684	121	361	840	442
User Adj:	1.00	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:	573	1954	571	602	644	239	232	684	121	361	840	442
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	573	1954	571	602	644	239	232	684	121	361	840	442
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	573	1954	571	602	644	239	232	684	121	361	840	442
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	5700	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.18	0.34	0.33	0.19	0.11	0.14	0.07	0.12	0.07	0.11	0.22	0.25
Crit Moves:		****		****			****					****
Green Time:	38.3	43.0	43.0	24.0	28.7	28.7	9.2	21.0	21.0	20.0	31.7	31.7
Volume/Cap:	0.57	0.96	0.91	0.96	0.47	0.57	0.96	0.69	0.40	0.69	0.84	0.96
Uniform Del:	34.0	37.5	36.6	47.5	39.1	40.2	55.2	46.5	43.9	47.1	41.7	43.5
IncremntDel:	2.3	11.9	19.5	26.5	0.9	1.5	47.4	3.9	3.8	7.2	5.6	16.0
InitQueuDel:	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:	36.3	49.4	56.1	74.0	40.0	41.7	102.6	50.3	47.7	54.2	47.3	59.5
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:	36.3	49.4	56.1	74.0	40.0	41.7	102.6	50.3	47.7	54.2	47.3	59.5
LOS by Move:	D+	D	E+	E	D	D	F	D	D	D-	D	E+
HCM2kAvgQ:	272	713	636	443	175	222	211	226	113	218	424	556

Note: Queue reported is the distance per lane in feet.

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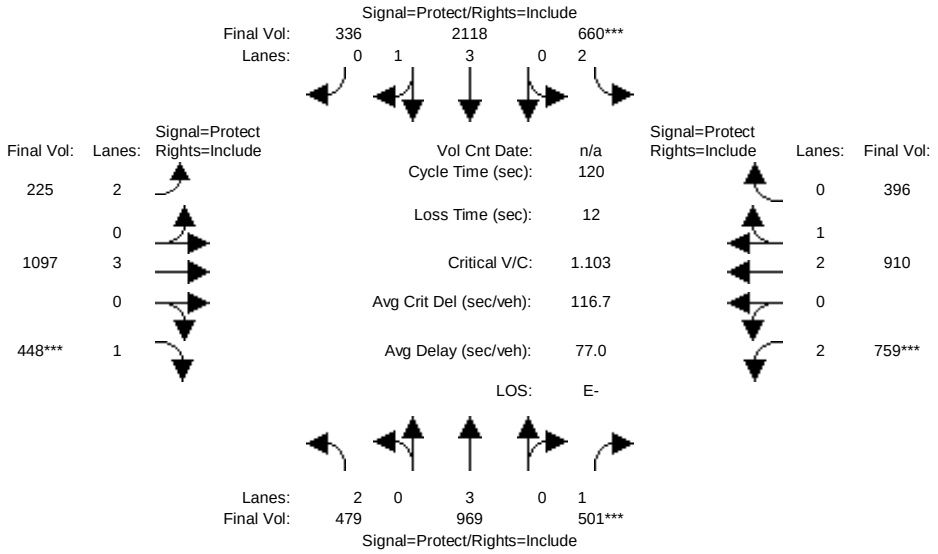
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #11: De Anza Boulevard/Stevens Creek Boulevard



Street Name:	De Anza Boulevard						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	479	969	358	571	2118	336	225	979	448	476	678	240
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	479	969	358	571	2118	336	225	979	448	476	678	240
Added Vol:	0	0	143	89	0	0	0	118	0	283	232	156
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	479	969	501	660	2118	336	225	1097	448	759	910	396
User Adj:	1.00	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:	479	969	501	660	2118	336	225	1097	448	759	910	396
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	479	969	501	660	2118	336	225	1097	448	759	910	396
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	479	969	501	660	2118	336	225	1097	448	759	910	396
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.99	0.95	0.83	1.00	0.92	0.83	1.00	0.95
Lanes:	2.00	3.00	1.00	2.00	3.43	0.57	2.00	3.00	1.00	2.00	2.06	0.94
Final Sat.:	3150	5700	1750	3150	6471	1027	3150	5700	1750	3150	3900	1697
Capacity Analysis Module:												
Vol/Sat:	0.15	0.17	0.29	0.21	0.33	0.33	0.07	0.19	0.26	0.24	0.23	0.23
Crit Moves:			****	****					****	****		
Green Time:	17.1	31.1	31.1	22.8	36.8	36.8	12.7	27.8	27.8	26.2	41.4	41.4
Volume/Cap:	1.07	0.66	1.10	1.10	1.07	1.07	0.68	0.83	1.10	1.10	0.68	0.68
Uniform Del:	51.4	39.6	44.4	48.6	41.6	41.6	51.7	43.8	46.1	46.9	33.6	33.6
IncremntDel:	61.3	2.3	73.2	68.3	39.4	39.4	10.6	6.1	75.5	66.0	1.9	1.9
InitQueuDel:	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:	112.7	41.9	117.7	116.9	81.0	81.0	62.2	49.9	121.6	112.9	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:	112.7	41.9	117.7	116.9	81.0	81.0	62.2	49.9	121.6	112.9	35.5	35.5
LOS by Move:	F	D	F	F	F	F	E	D	F	F	D+	D+
HCM2kAvgQ:	422	284	754	576	807	807	152	378	684	649	364	364

Note: Queue reported is the distance per lane in feet.

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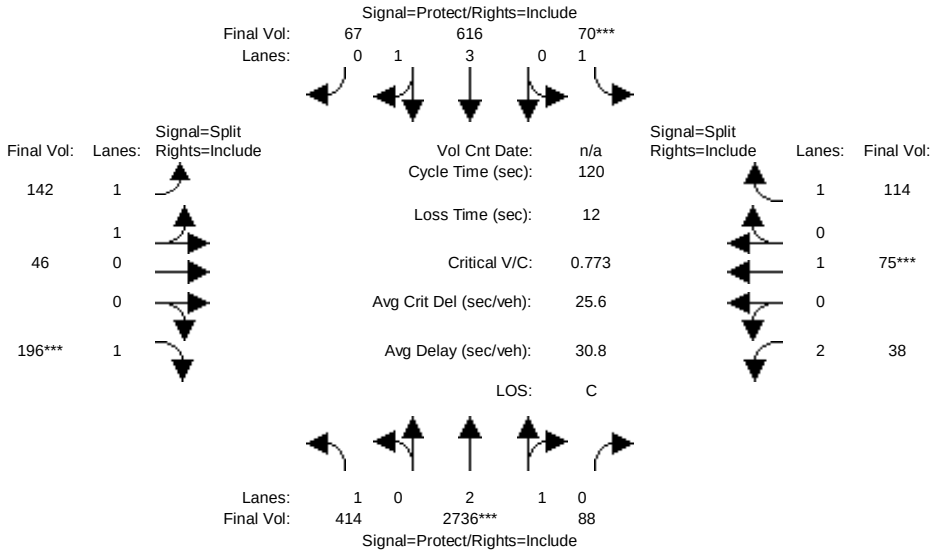
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #12: De Anza Boulevard/McClellan Road



Street Name:	De Anza Boulevard						McClellan Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	414	2477	88	70	540	67	142	46	196	38	75	114
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	414	2477	88	70	540	67	142	46	196	38	75	114
Added Vol:	0	259	0	0	76	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	414	2736	88	70	616	67	142	46	196	38	75	114
User Adj:	1.00	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:	414	2736	88	70	616	67	142	46	196	38	75	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	414	2736	88	70	616	67	142	46	196	38	75	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	414	2736	88	70	616	67	142	46	196	38	75	114
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.99	0.95	0.93	0.95	0.92	0.83	1.00	0.92
Lanes:	1.00	2.90	0.10	1.00	3.59	0.41	1.52	0.48	1.00	2.00	1.00	1.00
Final Sat.:	1750	5425	174	1750	6763	736	2681	869	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.24	0.50	0.50	0.04	0.09	0.09	0.05	0.05	0.11	0.01	0.04	0.07
Crit Moves:		****		****					****		****	
Green Time:	58.8	74.4	74.4	7.0	22.6	22.6	16.5	16.5	16.5	10.1	10.1	10.1
Volume/Cap:	0.48	0.81	0.81	0.69	0.48	0.48	0.38	0.38	0.81	0.14	0.47	0.77
Uniform Del:	20.5	17.5	17.5	55.4	43.5	43.5	47.1	47.1	50.2	50.9	52.4	53.8
IncremntDel:	1.9	2.2	2.2	31.5	1.2	1.2	2.3	2.3	25.1	1.1	9.5	31.7
InitQueuDel:	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:	22.4	19.7	19.7	86.9	44.7	44.7	49.4	49.4	75.4	52.1	61.9	85.5
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:	22.4	19.7	19.7	86.9	44.7	44.7	49.4	49.4	75.4	52.1	61.9	85.5
LOS by Move:	C+	B-	B-	F	D	D	D	D	E-	D-	E	F
HCM2kAvgQ:	273	708	708	102	151	151	92	92	246	22	80	158

Note: Queue reported is the distance per lane in feet.

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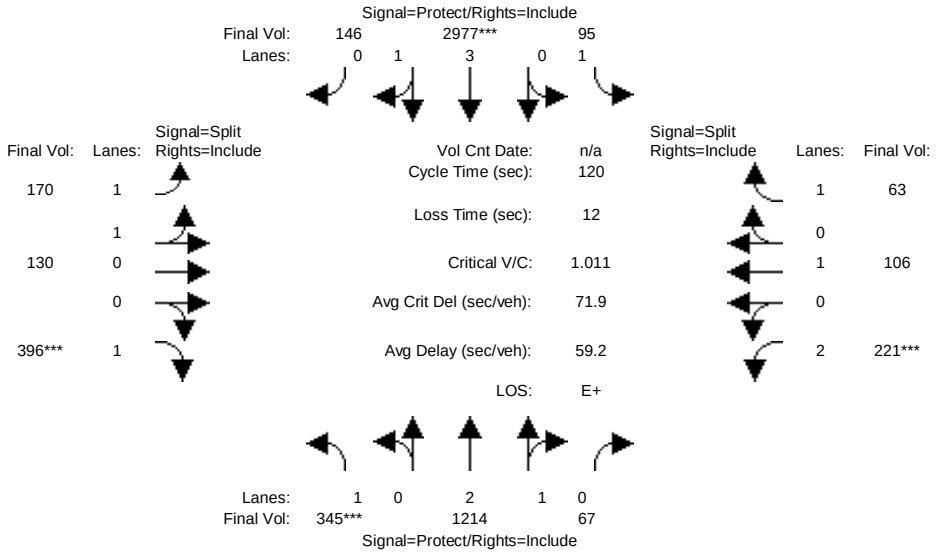
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #12: De Anza Boulevard/McClellan Road



Street Name:	De Anza Boulevard						McClellan Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	24	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	345	1071	67	95	2694	146	170	130	396	221	106	63
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	345	1071	67	95	2694	146	170	130	396	221	106	63
Added Vol:	0	143	0	0	283	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	345	1214	67	95	2977	146	170	130	396	221	106	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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:	345	1214	67	95	2977	146	170	130	396	221	106	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	345	1214	67	95	2977	146	170	130	396	221	106	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	345	1214	67	95	2977	146	170	130	396	221	106	63
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.99	0.95	0.92	0.95	0.92	0.83	1.00	0.92
Lanes:	1.00	2.84	0.16	1.00	3.81	0.19	1.15	0.85	1.00	2.00	1.00	1.00
Final Sat.:	1750	5307	293	1750	7149	351	2011	1538	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.20	0.23	0.23	0.05	0.42	0.42	0.08	0.08	0.23	0.07	0.06	0.04
Crit Moves:	****				****				****	****		
Green Time:	24.0	57.3	57.3	14.6	47.9	47.9	26.1	26.1	26.1	10.0	10.0	10.0
Volume/Cap:	0.99	0.48	0.48	0.45	1.04	1.04	0.39	0.39	1.04	0.84	0.67	0.43
Uniform Del:	47.8	21.2	21.2	48.9	36.0	36.0	40.2	40.2	47.0	54.2	53.4	52.3
IncremntDel:	44.7	0.6	0.6	6.6	28.8	28.8	1.5	1.5	57.6	26.6	20.3	9.1
InitQueuDel:	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:	92.5	21.8	21.8	55.5	64.8	64.8	41.7	41.7	104.6	80.8	73.7	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:	92.5	21.8	21.8	55.5	64.8	64.8	41.7	41.7	104.6	80.8	73.7	61.4
LOS by Move:	F	C+	C+	E+	E	E	D	D	F	F	E	E
HCM2kAvgQ:	474	268	268	99	963	963	130	130	571	180	126	72

Note: Queue reported is the distance per lane in feet.

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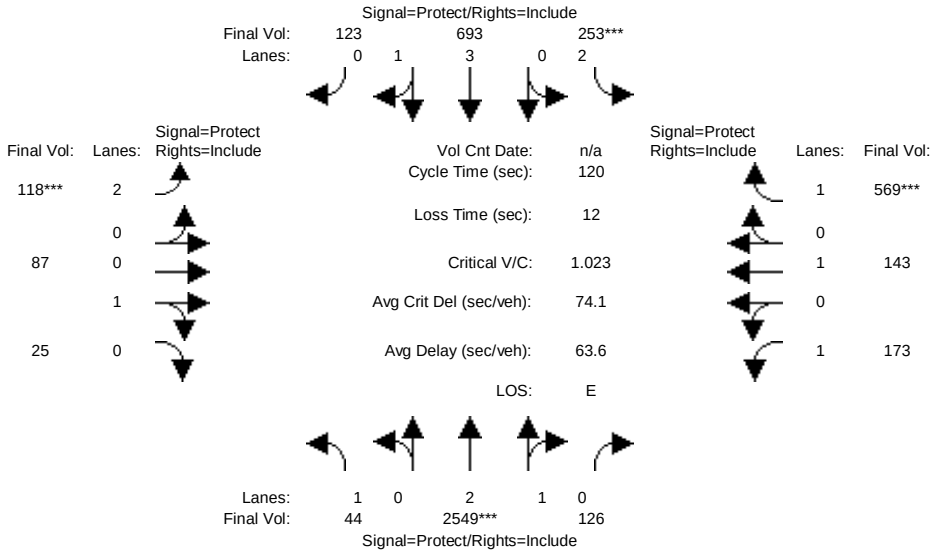
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #13: De Anza Boulevard/Bollinger Road



Street Name:	De Anza Boulevard						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	44	2296	126	253	619	121	111	80	25	173	141	569
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	44	2296	126	253	619	121	111	80	25	173	141	569
Added Vol:	0	253	0	0	74	2	7	7	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	2549	126	253	693	123	118	87	25	173	143	569
User Adj:	1.00	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:	44	2549	126	253	693	123	118	87	25	173	143	569
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	2549	126	253	693	123	118	87	25	173	143	569
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	44	2549	126	253	693	123	118	87	25	173	143	569
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.83	0.99	0.95	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	2.85	0.15	2.00	3.37	0.63	2.00	0.78	0.22	1.00	1.00	1.00
Final Sat.:	1750	5336	264	3150	6368	1130	3150	1398	402	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.48	0.48	0.08	0.11	0.11	0.04	0.06	0.06	0.10	0.08	0.33
Crit Moves:		****		****			****					****
Green Time:	22.3	54.6	54.6	9.2	41.5	41.5	7.0	20.2	20.2	24.0	37.2	37.2
Volume/Cap:	0.14	1.05	1.05	1.05	0.31	0.31	0.64	0.37	0.37	0.49	0.24	1.05
Uniform Del:	40.8	32.7	32.7	55.4	28.8	28.8	55.3	44.2	44.2	42.6	30.9	41.4
IncremntDel:	0.9	32.5	32.5	71.5	0.3	0.3	16.0	3.4	3.4	4.9	1.0	52.2
InitQueuDel:	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:	41.7	65.1	65.1	126.9	29.1	29.1	71.3	47.7	47.7	47.6	31.9	93.6
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:	41.7	65.1	65.1	126.9	29.1	29.1	71.3	47.7	47.7	47.6	31.9	93.6
LOS by Move:	D	E	E	F	C	C	E	D	D	D	C	F
HCM2kAvgQ:	37	1098	1098	248	138	138	93	102	102	163	97	784

Note: Queue reported is the distance per lane in feet.

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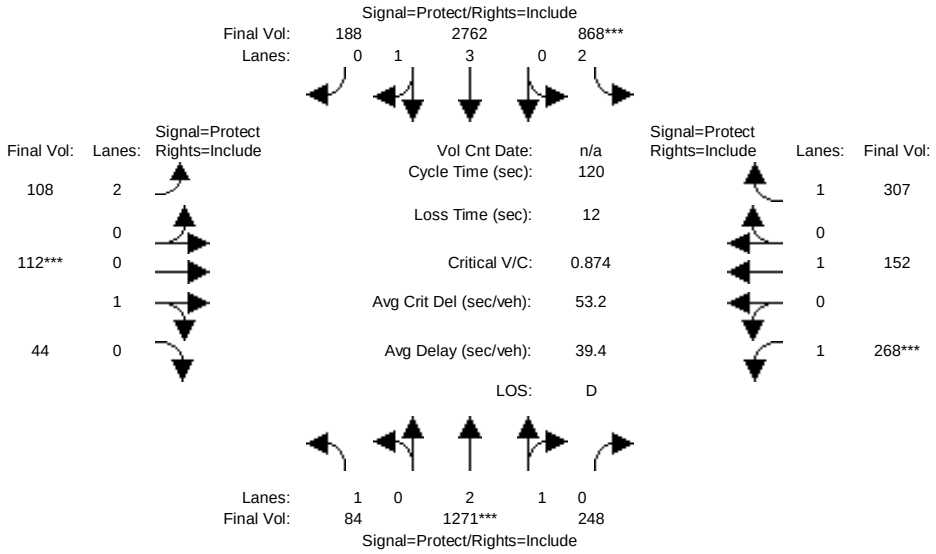
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #13: De Anza Boulevard/Bollinger Road



Street Name:	De Anza Boulevard						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	40	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	84	1131	248	868	2486	181	104	108	44	268	145	307
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	84	1131	248	868	2486	181	104	108	44	268	145	307
Added Vol:	0	140	0	0	276	7	4	4	0	0	7	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	84	1271	248	868	2762	188	108	112	44	268	152	307
User Adj:	1.00	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:	84	1271	248	868	2762	188	108	112	44	268	152	307
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	1271	248	868	2762	188	108	112	44	268	152	307
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	84	1271	248	868	2762	188	108	112	44	268	152	307
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	0.99	0.95	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	2.49	0.51	2.00	3.73	0.27	2.00	0.72	0.28	1.00	1.00	1.00
Final Sat.:	1750	4685	914	3150	7021	478	3150	1292	508	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.27	0.27	0.28	0.39	0.39	0.03	0.09	0.09	0.15	0.08	0.18
Crit Moves:		****		****				****		****		
Green Time:	9.8	36.1	36.1	40.0	66.3	66.3	8.0	11.5	11.5	20.4	23.9	23.9
Volume/Cap:	0.59	0.90	0.90	0.83	0.71	0.71	0.52	0.90	0.90	0.90	0.40	0.88
Uniform Del:	53.1	40.3	40.3	36.8	19.8	19.8	54.2	53.7	53.7	48.8	41.8	46.6
IncremntDel:	16.4	8.3	8.3	7.5	1.1	1.1	8.9	46.6	46.6	32.2	3.1	25.5
InitQueuDel:	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:	69.5	48.5	48.5	44.3	20.9	20.9	63.0	100	100.3	81.1	44.9	72.2
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:	69.5	48.5	48.5	44.3	20.9	20.9	63.0	100	100.3	81.1	44.9	72.2
LOS by Move:	E	D	D	D	C+	C+	E	F	F	F	D	E
HCM2kAvgQ:	104	544	544	495	518	518	76	225	225	347	127	375

Note: Queue reported is the distance per lane in feet.

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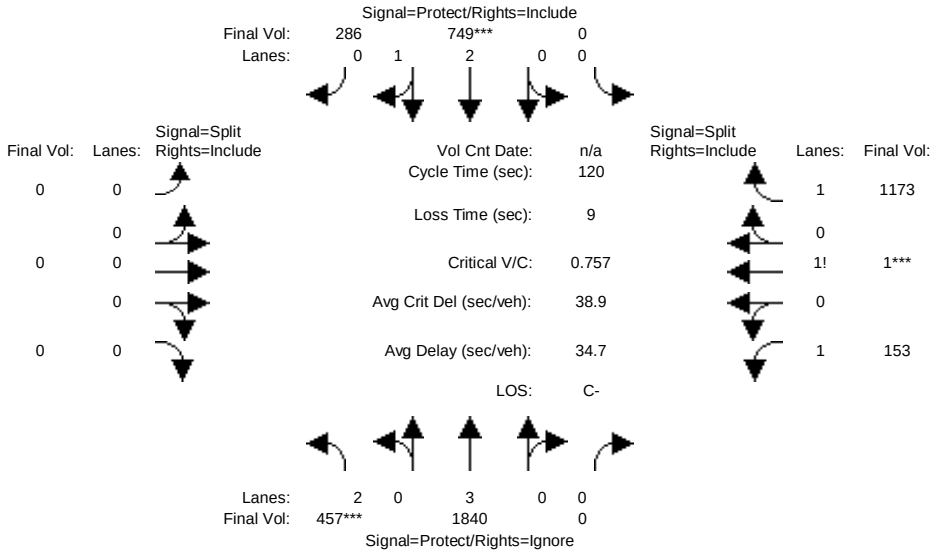
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #14: De Anza Boulevard/SR 85 Ramps North



Street Name:	De Anza Boulevard						SR 85 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	457	1773	0	0	675	286	0	0	0	153	1	987
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	457	1773	0	0	675	286	0	0	0	153	1	987
Added Vol:	0	67	0	0	74	0	0	0	0	0	0	186
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	457	1840	0	0	749	286	0	0	0	153	1	1173
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	457	1840	0	0	749	286	0	0	0	153	1	1173
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	457	1840	0	0	749	286	0	0	0	153	1	1173
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	457	1840	0	0	749	286	0	0	0	153	1	1173
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.95	0.92	1.00	0.92	0.92	0.95	0.95
Lanes:	2.00	3.00	0.00	0.00	2.14	0.86	0.00	0.00	0.00	1.11	0.01	1.88
Final Sat.:	3150	5700	0	0	4051	1547	0	0	0	1957	3	3385
Capacity Analysis Module:												
Vol/Sat:	0.15	0.32	0.00	0.00	0.18	0.18	0.00	0.00	0.00	0.08	0.37	0.35
Crit Moves:	****				****						****	
Green Time:	23.0	52.3	0.0	0.0	29.3	29.3	0.0	0.0	0.0	58.7	58.7	58.7
Volume/Cap:	0.76	0.74	0.00	0.00	0.76	0.76	0.00	0.00	0.00	0.16	0.76	0.71
Uniform Del:	45.9	28.2	0.0	0.0	42.0	42.0	0.0	0.0	0.0	17.0	24.9	24.0
IncremntDel:	8.6	2.0	0.0	0.0	4.0	4.0	0.0	0.0	0.0	0.0	3.1	2.3
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	54.5	30.2	0.0	0.0	46.0	46.0	0.0	0.0	0.0	17.0	28.0	26.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.5	30.2	0.0	0.0	46.0	46.0	0.0	0.0	0.0	17.0	28.0	26.3
LOS by Move:	D-	C	A	A	D	D	A	A	A	B	C	C
HCM2kAvgQ:	247	476	0	0	337	337	0	0	0	73	546	486

Note: Queue reported is the distance per lane in feet.

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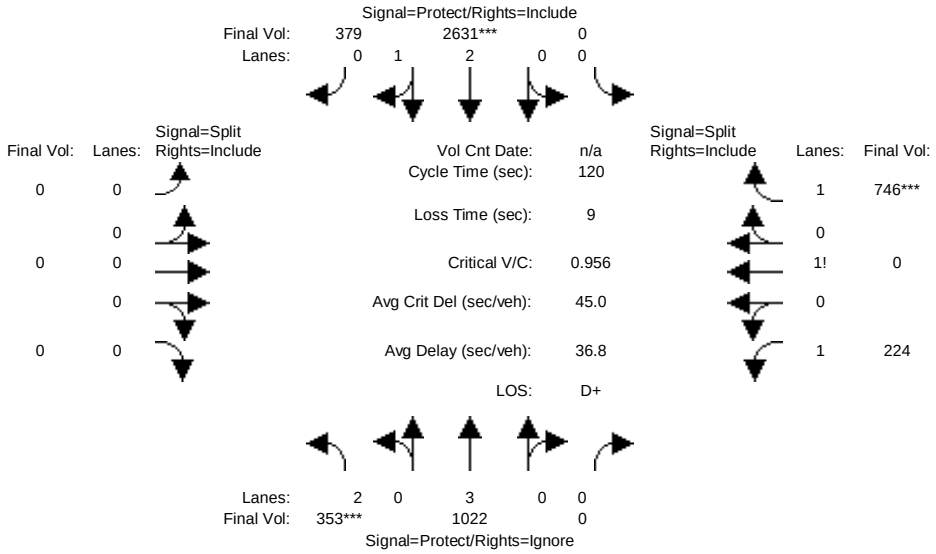
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #14: De Anza Boulevard/SR 85 Ramps North



Street Name:	De Anza Boulevard						SR 85 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	353	985	0	0	2355	379	0	0	0	224	0	643
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	353	985	0	0	2355	379	0	0	0	224	0	643
Added Vol:	0	37	0	0	276	0	0	0	0	0	0	103
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	353	1022	0	0	2631	379	0	0	0	224	0	746
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	353	1022	0	0	2631	379	0	0	0	224	0	746
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	353	1022	0	0	2631	379	0	0	0	224	0	746
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	353	1022	0	0	2631	379	0	0	0	224	0	746
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.95
Lanes:	2.00	3.00	0.00	0.00	2.61	0.39	0.00	0.00	0.00	1.24	0.00	1.76
Final Sat.:	3150	5700	0	0	4894	705	0	0	0	2163	0	3175
Capacity Analysis Module:												
Vol/Sat:	0.11	0.18	0.00	0.00	0.54	0.54	0.00	0.00	0.00	0.10	0.00	0.23
Crit Moves:	****				****							****
Green Time:	14.1	81.5	0.0	0.0	67.5	67.5	0.0	0.0	0.0	29.5	0.0	29.5
Volume/Cap:	0.96	0.26	0.00	0.00	0.96	0.96	0.00	0.00	0.00	0.42	0.00	0.96
Uniform Del:	52.7	7.5	0.0	0.0	24.9	24.9	0.0	0.0	0.0	38.1	0.0	44.6
IncremntDel:	37.0	0.2	0.0	0.0	8.7	8.7	0.0	0.0	0.0	0.6	0.0	19.5
InitQueuDel:	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	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	89.7	7.7	0.0	0.0	33.6	33.6	0.0	0.0	0.0	38.7	0.0	64.1
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:	89.7	7.7	0.0	0.0	33.6	33.6	0.0	0.0	0.0	38.7	0.0	64.1
LOS by Move:	F	A	A	A	C-	C-	A	A	A	D+	A	E
HCM2kAvgQ:	192	112	0	0	1025	1025	0	0	0	156	0	524

Note: Queue reported is the distance per lane in feet.

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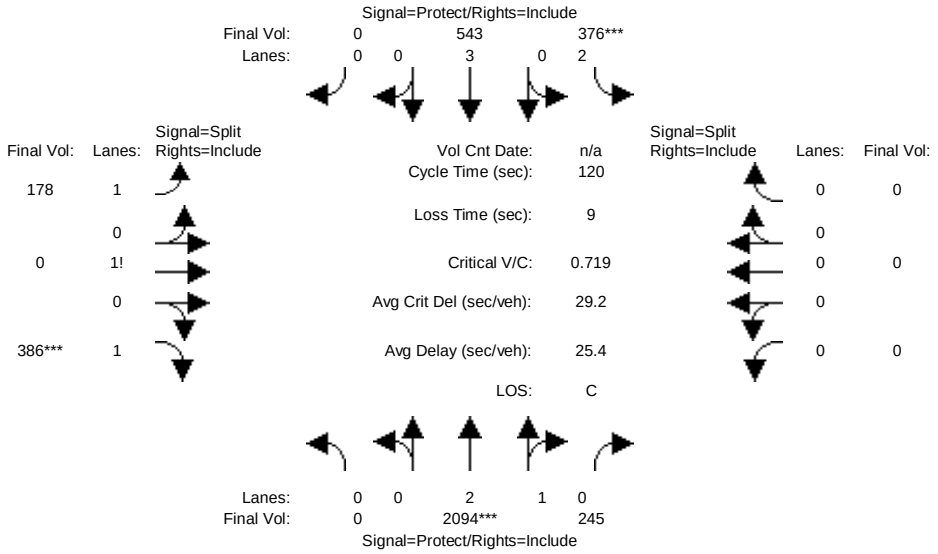
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #15: De Anza Boulevard/SR 85 Ramps South



Street Name:	De Anza Boulevard						SR 85 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	2027	245	322	524	0	178	0	386	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2027	245	322	524	0	178	0	386	0	0	0
Added Vol:	0	67	0	54	19	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2094	245	376	543	0	178	0	386	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	2094	245	376	543	0	178	0	386	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2094	245	376	543	0	178	0	386	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	2094	245	376	543	0	178	0	386	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.92	1.00	0.95	0.92	1.00	0.92
Lanes:	0.00	2.67	0.33	2.00	3.00	0.00	1.32	0.00	1.68	0.00	0.00	0.00
Final Sat.:	0	5013	586	3150	5700	0	2313	0	3021	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.42	0.42	0.12	0.10	0.00	0.08	0.00	0.13	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green Time:	0.0	69.7	69.7	19.9	89.7	0.0	21.3	0.0	21.3	0.0	0.0	0.0
Volume/Cap:	0.00	0.72	0.72	0.72	0.13	0.00	0.43	0.00	0.72	0.00	0.00	0.00
Uniform Del:	0.0	18.1	18.1	47.4	4.2	0.0	43.9	0.0	46.5	0.0	0.0	0.0
IncremntDel:	0.0	1.4	1.4	8.3	0.1	0.0	1.1	0.0	5.6	0.0	0.0	0.0
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	19.5	19.5	55.6	4.3	0.0	45.0	0.0	52.1	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	19.5	19.5	55.6	4.3	0.0	45.0	0.0	52.1	0.0	0.0	0.0
LOS by Move:	A	B-	B-	E+	A	A	D	A	D-	A	A	A
HCM2kAvgQ:	0	536	536	200	46	0	127	0	245	0	0	0

Note: Queue reported is the distance per lane in feet.

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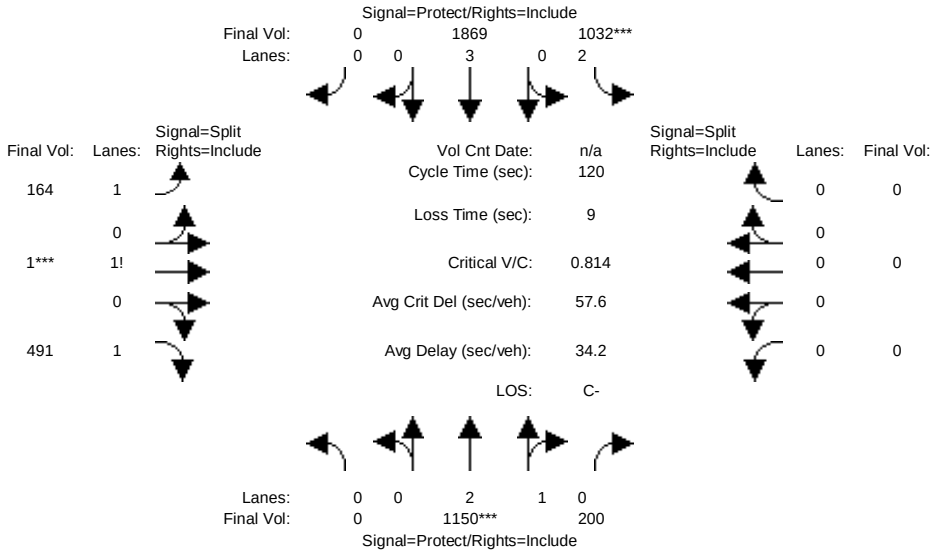
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #15: De Anza Boulevard/SR 85 Ramps South



Street Name:	De Anza Boulevard						SR 85 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	60	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1113	200	829	1796	0	164	1	491	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1113	200	829	1796	0	164	1	491	0	0	0
Added Vol:	0	37	0	203	73	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1150	200	1032	1869	0	164	1	491	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	1150	200	1032	1869	0	164	1	491	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1150	200	1032	1869	0	164	1	491	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	1150	200	1032	1869	0	164	1	491	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	0.00	2.54	0.46	2.00	3.00	0.00	1.25	0.01	1.74	0.00	0.00	0.00
Final Sat.:	0	4769	829	3150	5700	0	2196	5	3136	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.24	0.24	0.33	0.33	0.00	0.07	0.18	0.16	0.00	0.00	0.00
Crit Moves:		****		****				****				
Green Time:	0.0	28.9	28.9	60.0	88.9	0.0	22.1	22.1	22.1	0.0	0.0	0.0
Volume/Cap:	0.00	1.00	1.00	0.66	0.44	0.00	0.41	1.00	0.85	0.00	0.00	0.00
Uniform Del:	0.0	45.5	45.5	22.3	6.0	0.0	43.2	49.0	47.4	0.0	0.0	0.0
IncremntDel:	0.0	24.5	24.5	2.1	0.3	0.0	0.8	35.1	11.5	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	70.0	70.0	24.5	6.3	0.0	44.0	84.1	58.8	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:	0.0	70.0	70.0	24.5	6.3	0.0	44.0	84.1	58.8	0.0	0.0	0.0
LOS by Move:	A	E	E	C	A	A	D	F	E+	A	A	A
HCM2kAvgQ:	0	571	571	398	207	0	121	456	332	0	0	0

Note: Queue reported is the distance per lane in feet.

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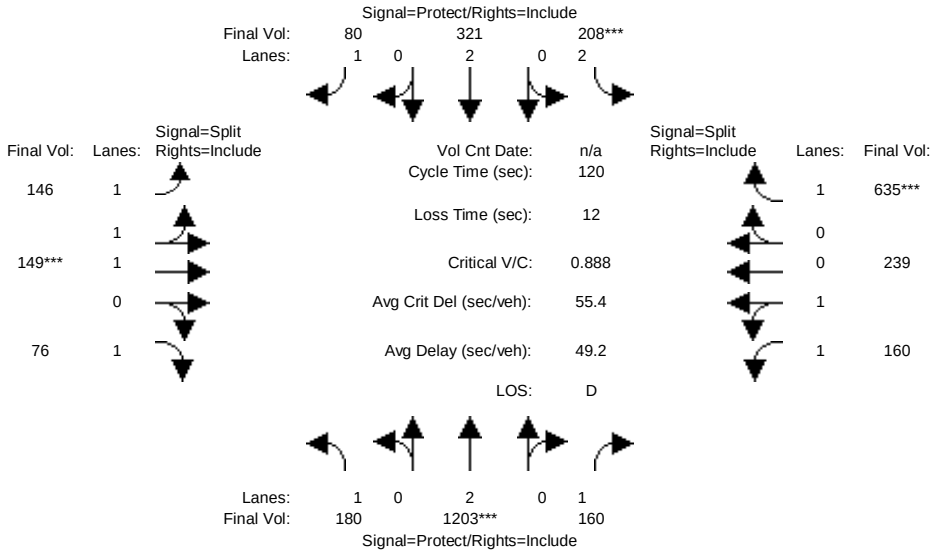
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #16: Saratoga Sunnyvale Road/Prospect Road



Street Name:	Saratoga Sunnyvale Road						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	180	1163	160	208	309	72	119	149	76	160	239	635
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	180	1163	160	208	309	72	119	149	76	160	239	635
Added Vol:	0	40	0	0	12	8	27	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	180	1203	160	208	321	80	146	149	76	160	239	635
User Adj:	1.00	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:	180	1203	160	208	321	80	146	149	76	160	239	635
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	180	1203	160	208	321	80	146	149	76	160	239	635
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	180	1203	160	208	321	80	146	149	76	160	239	635
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.93	0.98	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.53	1.47	1.00	1.00	1.00	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	2695	2751	1750	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.32	0.09	0.07	0.08	0.05	0.05	0.05	0.04	0.09	0.13	0.36
Crit Moves:		****		****				****				****
Green Time:	27.6	41.6	41.6	8.7	22.7	22.7	10.0	10.0	10.0	47.7	47.7	47.7
Volume/Cap:	0.45	0.91	0.26	0.91	0.45	0.24	0.65	0.65	0.52	0.23	0.32	0.91
Uniform Del:	39.6	37.5	28.2	55.3	43.1	41.4	53.3	53.3	52.7	24.0	24.9	34.2
IncremntDel:	3.6	11.1	1.1	40.6	2.0	1.7	7.1	7.1	12.7	0.3	0.7	18.4
InitQueuDel:	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:	43.2	48.6	29.2	95.9	45.1	43.1	60.4	60.4	65.4	24.3	25.6	52.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.2	48.6	29.2	95.9	45.1	43.1	60.4	60.4	65.4	24.3	25.6	52.6
LOS by Move:	D	D	C	F	D	D	E	E	E	C	C	D-
HCM2kAvgQ:	159	624	113	186	138	69	121	121	91	103	149	694

Note: Queue reported is the distance per lane in feet.

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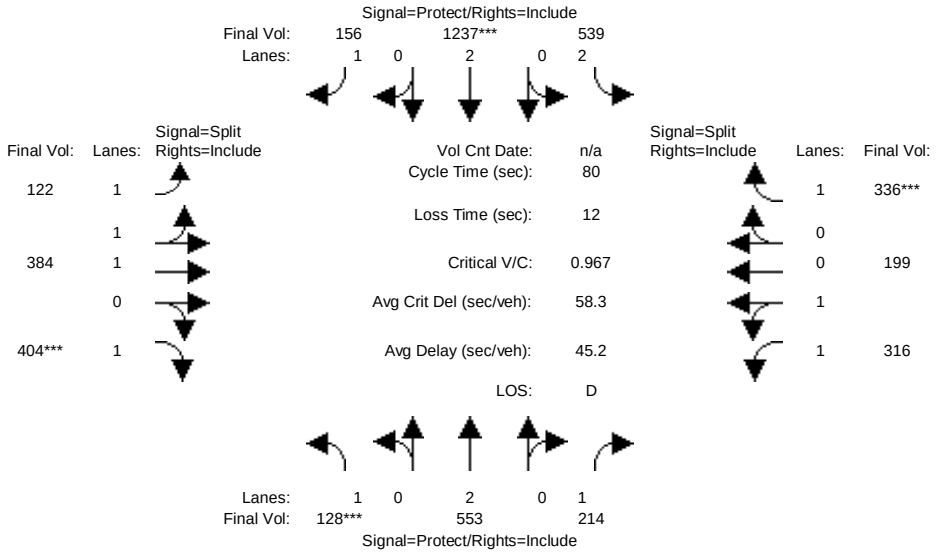
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #16: Saratoga Sunnyvale Road/Prospect Road



Street Name:	Saratoga Sunnyvale Road						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	128	531	214	539	1193	127	107	384	404	316	199	336
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	128	531	214	539	1193	127	107	384	404	316	199	336
Added Vol:	0	22	0	0	44	29	15	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	128	553	214	539	1237	156	122	384	404	316	199	336
User Adj:	1.00	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:	128	553	214	539	1237	156	122	384	404	316	199	336
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	128	553	214	539	1237	156	122	384	404	316	199	336
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	128	553	214	539	1237	156	122	384	404	316	199	336
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00	1.24	0.76	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	1750	3800	1750	2178	1372	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.15	0.12	0.17	0.33	0.09	0.07	0.10	0.23	0.15	0.15	0.19
Crit Moves:	****				****				****			****
Green Time:	7.0	15.4	15.4	18.1	26.5	26.5	18.8	18.8	18.8	15.6	15.6	15.6
Volume/Cap:	0.84	0.76	0.63	0.76	0.98	0.27	0.30	0.43	0.98	0.74	0.74	0.98
Uniform Del:	35.9	30.5	29.7	28.9	26.5	19.6	25.1	26.0	30.4	30.3	30.3	32.0
IncremntDel:	39.1	7.1	8.8	7.3	21.3	1.1	0.4	1.1	40.0	7.0	7.0	44.2
InitQueuDel:	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:	75.1	37.6	38.5	36.2	47.8	20.8	25.6	27.2	70.4	37.3	37.3	76.2
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:	75.1	37.6	38.5	36.2	47.8	20.8	25.6	27.2	70.4	37.3	37.3	76.2
LOS by Move:	E-	D+	D+	D+	D	C+	C	C	E	D+	D+	E-
HCM2kAvgQ:	146	208	158	233	543	78	71	109	415	204	204	360

Note: Queue reported is the distance per lane in feet.

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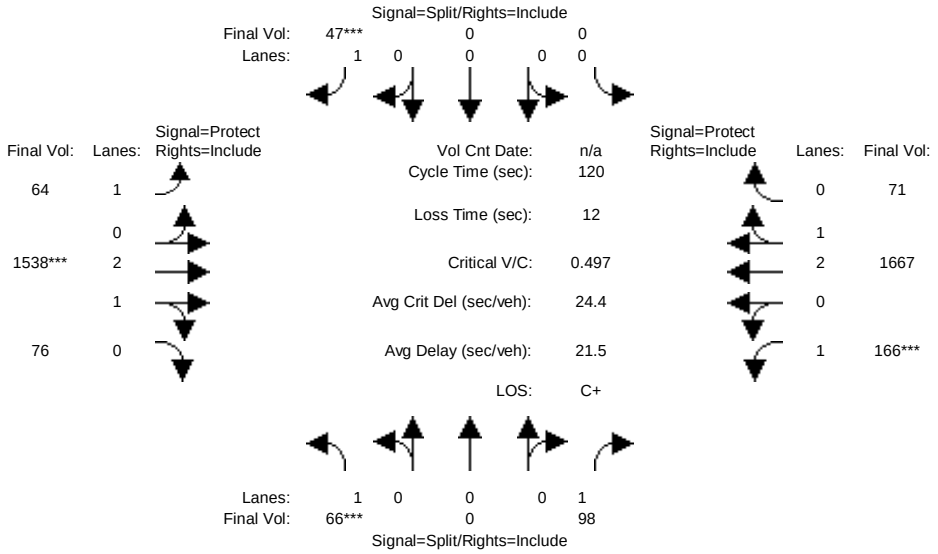
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #17: Stevens Creek Boulevard/Torre Avenue



Street Name:	Torre Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	66	0	98	0	0	47	64	904	76	166	1487	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	66	0	98	0	0	47	64	904	76	166	1487	71
Added Vol:	0	0	0	0	0	0	0	634	0	0	180	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	66	0	98	0	0	47	64	1538	76	166	1667	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:	66	0	98	0	0	47	64	1538	76	166	1667	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	0	98	0	0	47	64	1538	76	166	1667	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:	66	0	98	0	0	47	64	1538	76	166	1667	71
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	0.00	1.00	0.00	0.00	1.00	1.00	2.85	0.15	1.00	2.87	0.13
Final Sat.:	1750	0	1750	0	0	1750	1750	5336	264	1750	5371	229
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.06	0.00	0.00	0.03	0.04	0.29	0.29	0.09	0.31	0.31
Crit Moves:	****					****		****		****		
Green Time:	13.5	0.0	13.5	0.0	0.0	10.0	13.4	63.6	63.6	20.9	71.1	71.1
Volume/Cap:	0.33	0.00	0.50	0.00	0.00	0.32	0.33	0.54	0.54	0.54	0.52	0.52
Uniform Del:	49.1	0.0	50.1	0.0	0.0	51.8	49.2	18.6	18.6	45.2	14.4	14.4
IncremntDel:	4.5	0.0	8.7	0.0	0.0	5.8	4.4	0.7	0.7	6.8	0.6	0.6
InitQueuDel:	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	53.6	0.0	58.8	0.0	0.0	57.6	53.6	19.4	19.4	52.0	15.0	15.0
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:	53.6	0.0	58.8	0.0	0.0	57.6	53.6	19.4	19.4	52.0	15.0	15.0
LOS by Move:	D-	A	E+	A	A	E+	D-	B-	B-	D-	B	B
HCM2kAvgQ:	67	0	106	0	0	52	65	331	331	165	317	317

Note: Queue reported is the distance per lane in feet.

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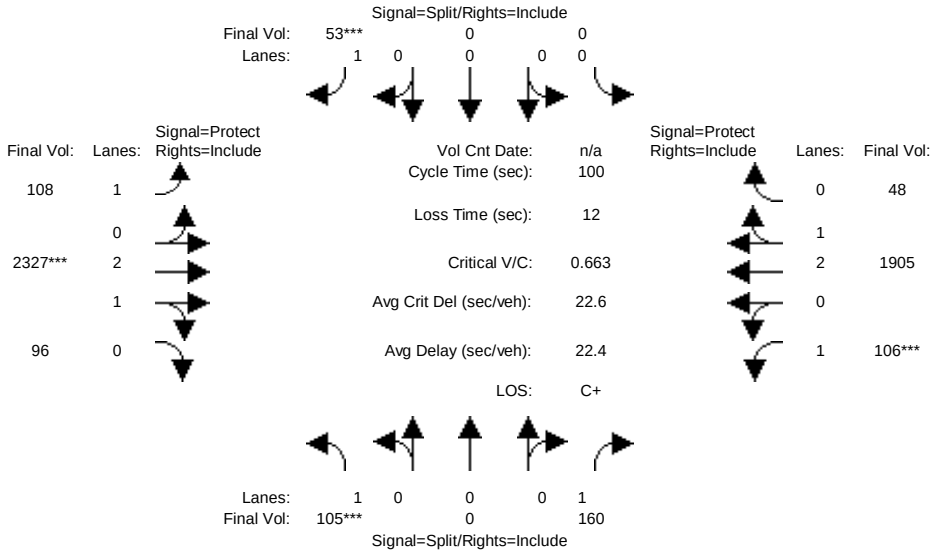
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #17: Stevens Creek Boulevard/Torre Avenue



Street Name:	Torre Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	105	0	160	0	0	53	108	1976	96	106	1234	48
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	105	0	160	0	0	53	108	1976	96	106	1234	48
Added Vol:	0	0	0	0	0	0	0	351	0	0	671	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	105	0	160	0	0	53	108	2327	96	106	1905	48
User Adj:	1.00	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:	105	0	160	0	0	53	108	2327	96	106	1905	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	105	0	160	0	0	53	108	2327	96	106	1905	48
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	105	0	160	0	0	53	108	2327	96	106	1905	48
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	0.00	1.00	0.00	0.00	1.00	1.00	2.88	0.12	1.00	2.92	0.08
Final Sat.:	1750	0	1750	0	0	1750	1750	5378	222	1750	5462	138
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.09	0.00	0.00	0.03	0.06	0.43	0.43	0.06	0.35	0.35
Crit Moves:	****					****		****			****	
Green Time:	13.8	0.0	13.8	0.0	0.0	10.0	10.7	56.3	56.3	7.9	53.5	53.5
Volume/Cap:	0.44	0.00	0.66	0.00	0.00	0.30	0.57	0.77	0.77	0.77	0.65	0.65
Uniform Del:	39.5	0.0	40.9	0.0	0.0	41.8	42.5	16.8	16.8	45.2	16.6	16.6
IncremntDel:	5.6	0.0	13.5	0.0	0.0	4.4	12.2	1.9	1.9	32.9	1.1	1.1
InitQueuDel:	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	45.2	0.0	54.4	0.0	0.0	46.2	54.6	18.7	18.7	78.0	17.7	17.7
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	0.0	54.4	0.0	0.0	46.2	54.6	18.7	18.7	78.0	17.7	17.7
LOS by Move:	D	A	D-	A	A	D	D-	B-	B-	E-	B	B
HCM2kAvgQ:	91	0	157	0	0	48	108	515	515	133	374	374

Note: Queue reported is the distance per lane in feet.

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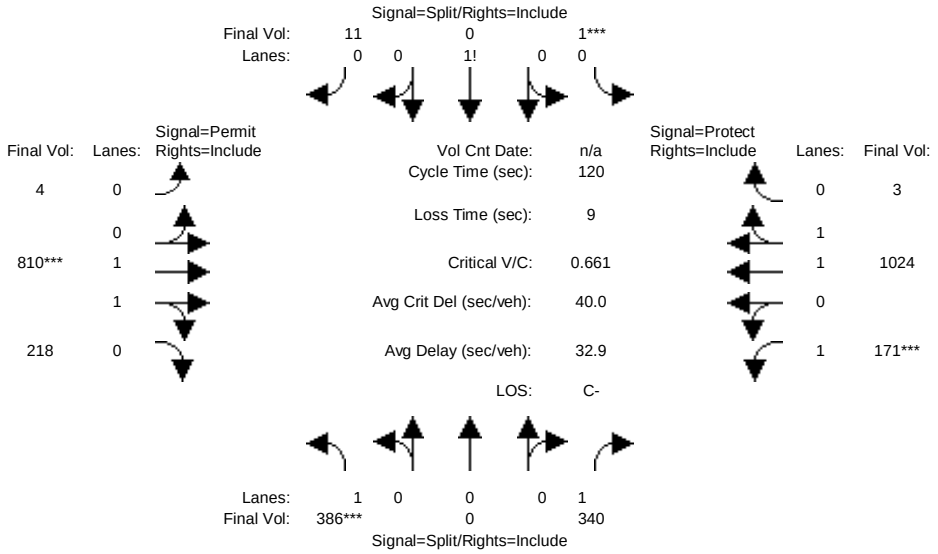
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #18: Homestead Road/Blaney Avenue



Street Name:	Homestead Road						Blaney Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	382	0	340	1	0	11	4	770	205	171	1012	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	382	0	340	1	0	11	4	770	205	171	1012	3
Added Vol:	4	0	0	0	0	0	0	40	13	0	12	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	386	0	340	1	0	11	4	810	218	171	1024	3
User Adj:	1.00	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:	386	0	340	1	0	11	4	810	218	171	1024	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	386	0	340	1	0	11	4	810	218	171	1024	3
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	386	0	340	1	0	11	4	810	218	171	1024	3
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.97	0.95
Lanes:	1.00	0.00	1.00	0.08	0.00	0.92	0.01	1.57	0.42	1.00	1.99	0.01
Final Sat.:	1750	0	1750	146	0	1604	14	2826	760	1750	3689	11
Capacity Analysis Module:												
Vol/Sat:	0.22	0.00	0.19	0.01	0.00	0.01	0.29	0.29	0.29	0.10	0.28	0.28
Crit Moves:	****			****				****		****		
Green Time:	36.8	0.0	36.8	10.0	0.0	10.0	47.9	47.9	47.9	16.3	64.2	64.2
Volume/Cap:	0.72	0.00	0.63	0.08	0.00	0.08	0.72	0.72	0.72	0.72	0.52	0.52
Uniform Del:	37.0	0.0	35.8	50.8	0.0	50.8	30.4	30.4	30.4	49.6	18.0	18.0
IncremntDel:	8.1	0.0	5.6	1.1	0.0	1.1	3.1	3.1	3.1	17.0	1.0	1.0
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	45.0	0.0	41.4	51.9	0.0	51.9	33.5	33.5	33.5	66.7	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:	45.0	0.0	41.4	51.9	0.0	51.9	33.5	33.5	33.5	66.7	19.0	19.0
LOS by Move:	D	A	D	D-	A	D-	C-	C-	C-	E	B-	B-
HCM2kAvgQ:	368	0	305	12	0	12	441	441	441	200	310	310

Note: Queue reported is the distance per lane in feet.

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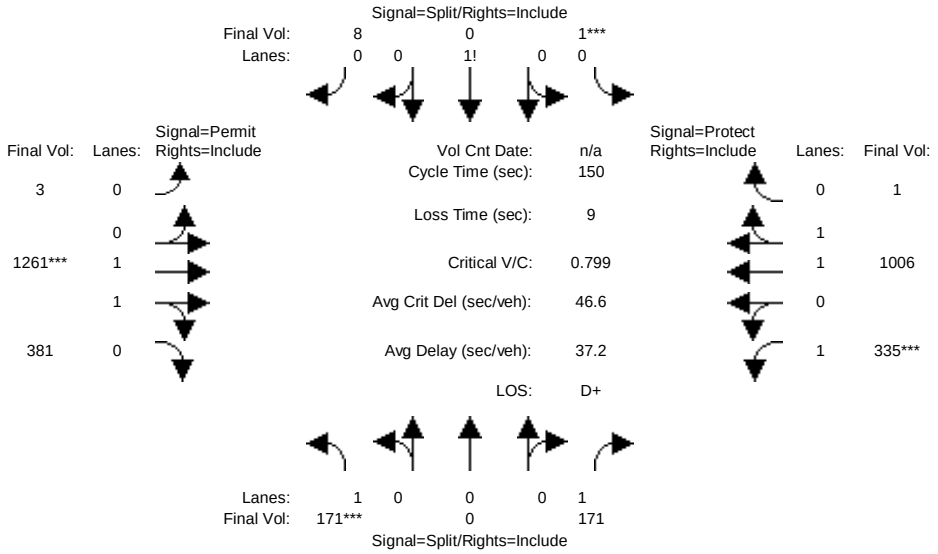
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #18: Homestead Road/Blaney Avenue



Street Name:	Homestead Road						Blaney Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	0	10	10	10	10	10	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	156	0	171	1	0	8	3	1239	374	335	962	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	156	0	171	1	0	8	3	1239	374	335	962	1
Added Vol:	15	0	0	0	0	0	0	22	7	0	44	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	171	0	171	1	0	8	3	1261	381	335	1006	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	0	171	1	0	8	3	1261	381	335	1006	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	171	0	171	1	0	8	3	1261	381	335	1006	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	171	0	171	1	0	8	3	1261	381	335	1006	1
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.97	0.95
Lanes:	1.00	0.00	1.00	0.11	0.00	0.89	0.01	1.53	0.46	1.00	1.99	0.01
Final Sat.:	1750	0	1750	194	0	1556	7	2760	834	1750	3696	4
Capacity Analysis Module:												
Vol/Sat:	0.10	0.00	0.10	0.01	0.00	0.01	0.46	0.46	0.46	0.19	0.27	0.27
Crit Moves:	****			****				****		****		
Green Time:	17.2	0.0	17.2	10.0	0.0	10.0	80.2	80.2	80.2	33.6	114	113.8
Volume/Cap:	0.85	0.00	0.85	0.08	0.00	0.08	0.85	0.85	0.85	0.85	0.36	0.36
Uniform Del:	65.2	0.0	65.2	65.7	0.0	65.7	29.9	29.9	29.9	55.8	6.0	6.0
IncremntDel:	34.5	0.0	34.5	1.3	0.0	1.3	5.1	5.1	5.1	20.5	0.4	0.4
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	99.7	0.0	99.7	67.0	0.0	67.0	35.0	35.0	35.0	76.3	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:	99.7	0.0	99.7	67.0	0.0	67.0	35.0	35.0	35.0	76.3	6.3	6.3
LOS by Move:	F	A	F	E	A	E	C-	C-	C-	E-	A	A
HCM2kAvgQ:	271	0	271	12	0	12	892	892	892	461	192	192

Note: Queue reported is the distance per lane in feet.

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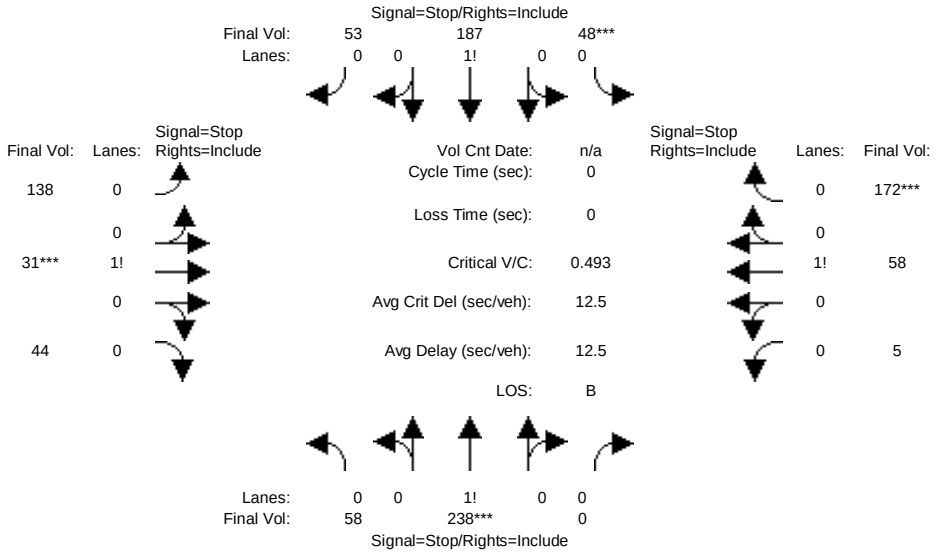
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #19: Blaney Avenue/Merritt Drive



Street Name:	Blaney Avenue						Merritt Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	58	226	0	48	147	53	138	31	44	5	58	172
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	58	226	0	48	147	53	138	31	44	5	58	172
Added Vol:	0	12	0	0	40	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	58	238	0	48	187	53	138	31	44	5	58	172
User Adj:	1.00	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:	58	238	0	48	187	53	138	31	44	5	58	172
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	238	0	48	187	53	138	31	44	5	58	172
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	58	238	0	48	187	53	138	31	44	5	58	172
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.20	0.80	0.00	0.17	0.65	0.18	0.65	0.14	0.21	0.02	0.25	0.73
Final Sat.:	118	482	0	101	395	112	362	81	115	13	149	442
Capacity Analysis Module:												
Vol/Sat:	0.49	0.49	xxxx	0.47	0.47	0.47	0.38	0.38	0.38	0.39	0.39	0.39
Crit Moves:		****		****				****				****
Delay/Veh:	13.4	13.4	0.0	12.9	12.9	12.9	12.0	12.0	12.0	11.4	11.4	11.4
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
AdjDel/Veh:	13.4	13.4	0.0	12.9	12.9	12.9	12.0	12.0	12.0	11.4	11.4	11.4
LOS by Move:	B	B	*	B	B	B	B	B	B	B	B	B
ApproachDel:		13.4			12.9			12.0			11.4	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		13.4			12.9			12.0			11.4	
LOS by Appr:		B			B			B			B	
AllWayAvgQ:	19.9	19.9	19.9	18.3	18.3	18.3	12.0	12.0	12.0	12.3	12.3	12.3

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #19 Blaney Avenue/Merritt Drive

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 1	0	0 0	0	0 1!	0 0	0	0 1!	0 0	0	0 1!	0 0
Initial Vol:	58	238	0	48	187	53	138	31	44	5	58	172

Major Street Volume: 584
Minor Approach Volume: 235
Minor Approach Volume Threshold: 363

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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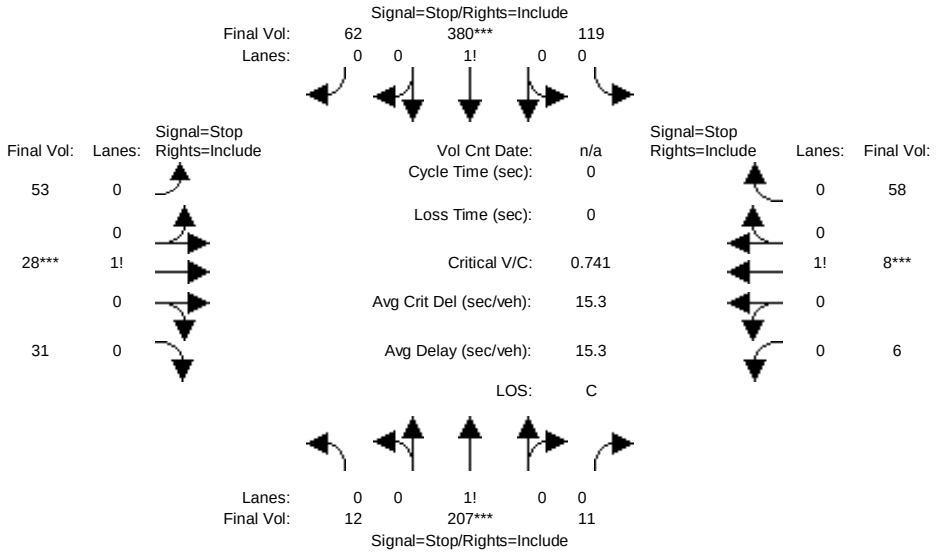
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #19: Blaney Avenue/Merritt Drive



Street Name:	Blaney Avenue						Merritt Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	12	163	11	119	358	62	53	28	31	6	8	58
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	163	11	119	358	62	53	28	31	6	8	58
Added Vol:	0	44	0	0	22	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	207	11	119	380	62	53	28	31	6	8	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:	12	207	11	119	380	62	53	28	31	6	8	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	207	11	119	380	62	53	28	31	6	8	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:	12	207	11	119	380	62	53	28	31	6	8	58
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.05	0.90	0.05	0.21	0.68	0.11	0.47	0.25	0.28	0.08	0.11	0.81
Final Sat.:	36	613	33	161	513	84	265	140	155	48	64	467
Capacity Analysis Module:												
Vol/Sat:	0.34	0.34	0.34	0.74	0.74	0.74	0.20	0.20	0.20	0.12	0.12	0.12
Crit Moves:		****			****			****			****	
Delay/Veh:	10.4	10.4	10.4	19.2	19.2	19.2	10.0	10.0	10.0	9.1	9.1	9.1
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
AdjDel/Veh:	10.4	10.4	10.4	19.2	19.2	19.2	10.0	10.0	10.0	9.1	9.1	9.1
LOS by Move:	B	B	B	C	C	C	A	A	A	A	A	A
ApproachDel:		10.4			19.2			10.0			9.1	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.4			19.2			10.0			9.1	
LOS by Appr:		B			C			A			A	
AllWayAvgQ:	11.3	11.3	11.3	60.7	60.7	60.7	4.8	4.8	4.8	2.7	2.7	2.7

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #19 Blaney Avenue/Merritt Drive

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1!	0		0 0 1!	0		0 0 1!	0		0 0 1!	0	
Initial Vol:	12	207	11	119	380	62	53	28	31	6	8	58

Major Street Volume: 791
Minor Approach Volume: 112
Minor Approach Volume Threshold: 282

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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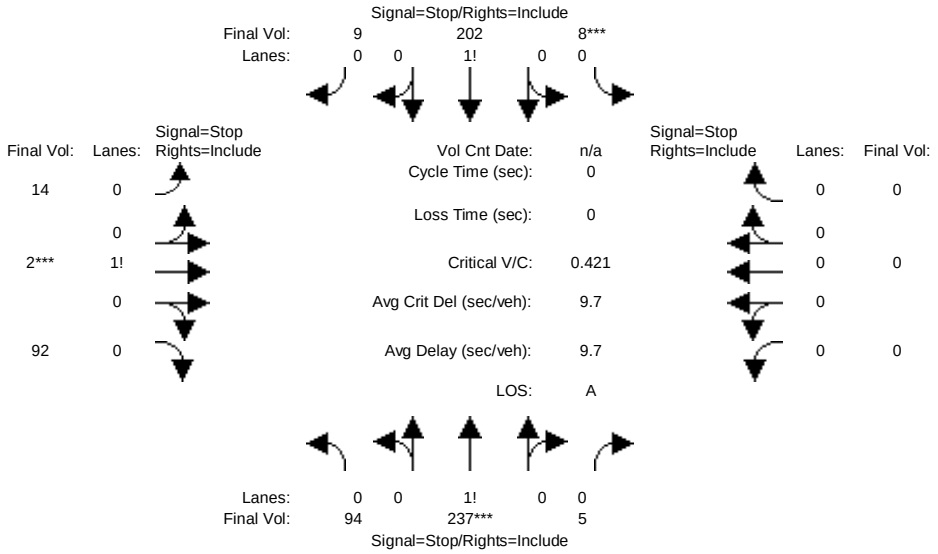
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #20: Blaney Avenue/Forest Avenue



Street Name:	Blaney Avenue						Forest Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	94	225	5	8	162	9	14	2	92	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	94	225	5	8	162	9	14	2	92	0	0	0
Added Vol:	0	12	0	0	40	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	94	237	5	8	202	9	14	2	92	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:	94	237	5	8	202	9	14	2	92	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	94	237	5	8	202	9	14	2	92	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:	94	237	5	8	202	9	14	2	92	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.28	0.71	0.01	0.04	0.92	0.04	0.13	0.02	0.85	0.00	0.00	0.00
Final Sat.:	223	563	12	29	721	32	94	13	615	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.42	0.42	0.42	0.28	0.28	0.28	0.15	0.15	0.15	xxxx	xxxx	xxxx
Crit Moves:		****		****				****				
Delay/Veh:	10.5	10.5	10.5	9.2	9.2	9.2	8.3	8.3	8.3	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
AdjDel/Veh:	10.5	10.5	10.5	9.2	9.2	9.2	8.3	8.3	8.3	0.0	0.0	0.0
LOS by Move:	B	B	B	A	A	A	A	A	A	*	*	*
ApproachDel:	10.5			9.2			8.3			xxxxxx		
Delay Adj:	1.00			1.00			1.00			xxxxx		
ApprAdjDel:	10.5			9.2			8.3			xxxxxx		
LOS by Appr:	B			A			A			*		
AllWayAvgQ:	17.1	17.1	17.1	9.1	9.1	9.1	3.6	3.6	3.6	0.0	0.0	0.0

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #20 Blaney Avenue/Forest Avenue

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1!	0		0 0 1!	0		0 0 1!	0		0 0 0	0	0
Initial Vol:	94 237	5		8 202	9		14	2		92	0	0

Major Street Volume: 555
Minor Approach Volume: 108
Minor Approach Volume Threshold: 376

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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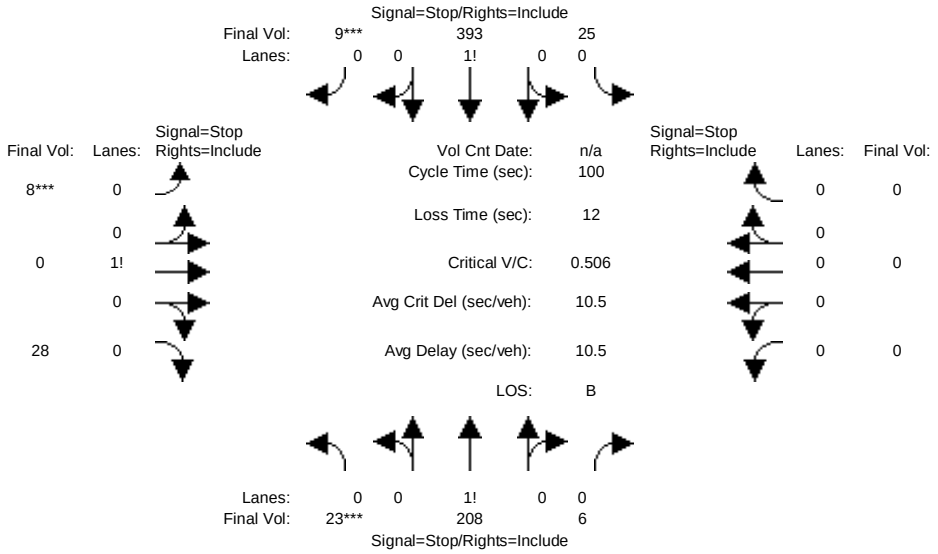
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #20: Blaney Avenue/Forest Avenue



Street Name:	Blaney Avenue						Forest Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	23	164	6	25	371	9	8	0	28	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	23	164	6	25	371	9	8	0	28	0	0	0
Added Vol:	0	44	0	0	22	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	23	208	6	25	393	9	8	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:	23	208	6	25	393	9	8	0	28	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	208	6	25	393	9	8	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
FinalVolume:	23	208	6	25	393	9	8	0	28	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.10	0.88	0.02	0.06	0.92	0.02	0.22	0.00	0.78	0.00	0.00	0.00
Final Sat.:	78	706	20	49	777	18	149	0	523	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.29	0.29	0.29	0.51	0.51	0.51	0.05	xxxx	0.05	xxxx	xxxx	xxxx
Crit Moves:	****					****	****					
Delay/Veh:	9.2	9.2	9.2	11.4	11.4	11.4	8.0	0.0	8.0	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
AdjDel/Veh:	9.2	9.2	9.2	11.4	11.4	11.4	8.0	0.0	8.0	0.0	0.0	0.0
LOS by Move:	A	A	A	B	B	B	A	*	A	*	*	*
ApproachDel:	9.2			11.4			8.0			xxxxxx		
Delay Adj:	1.00			1.00			1.00			xxxxx		
ApprAdjDel:	9.2			11.4			8.0			xxxxxx		
LOS by Appr:	A			B			A			*		
AllWayAvgQ:	9.9	9.9	9.9	24.4	24.4	24.4	1.1	1.1	1.1	0.0	0.0	0.0

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #20 Blaney Avenue/Forest Avenue

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0	0 0 0	0	0
Initial Vol:	23	208	6	25	393	9	8	0	28	0	0	0

Major Street Volume: 664
Minor Approach Volume: 36
Minor Approach Volume Threshold: 329

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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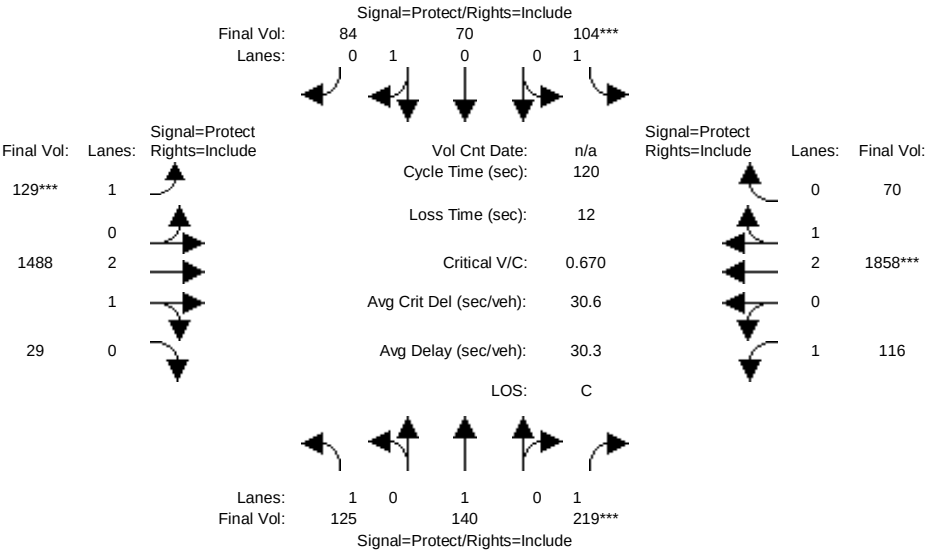
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #21: Stevens Creek Boulevard/Blaney Avenue



Street Name:	Blaney Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	125	140	179	64	70	84	129	854	29	104	1678	58
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	125	140	179	64	70	84	129	854	29	104	1678	58
Added Vol:	0	0	40	40	0	0	0	634	0	12	180	12
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	125	140	219	104	70	84	129	1488	29	116	1858	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:	125	140	219	104	70	84	129	1488	29	116	1858	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	125	140	219	104	70	84	129	1488	29	116	1858	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:	125	140	219	104	70	84	129	1488	29	116	1858	70
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	1.00	1.00	1.00	0.45	0.55	1.00	2.94	0.06	1.00	2.89	0.11
Final Sat.:	1750	1900	1750	1750	818	982	1750	5493	107	1750	5396	203
Capacity Analysis Module:												
Vol/Sat:	0.07	0.07	0.13	0.06	0.09	0.09	0.07	0.27	0.27	0.07	0.34	0.34
Crit Moves:			****	****			****				****	
Green Time:	15.1	22.4	22.4	10.7	18.0	18.0	13.2	60.2	60.2	14.7	61.7	61.7
Volume/Cap:	0.57	0.39	0.67	0.67	0.57	0.57	0.67	0.54	0.54	0.54	0.67	0.67
Uniform Del:	49.4	42.8	45.3	53.0	47.4	47.4	51.3	20.4	20.4	49.5	21.6	21.6
IncremntDel:	10.3	3.3	10.4	20.6	8.4	8.4	17.0	0.7	0.7	9.4	1.3	1.3
InitQueuDel:	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:	59.7	46.1	55.8	73.6	55.8	55.8	68.3	21.2	21.2	58.9	22.8	22.8
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:	59.7	46.1	55.8	73.6	55.8	55.8	68.3	21.2	21.2	58.9	22.8	22.8
LOS by Move:	E+	D	E+	E	E+	E+	E	C+	C+	E+	C+	C+
HCM2kAvgQ:	137	118	229	132	157	157	154	322	322	126	452	452

Note: Queue reported is the distance per lane in feet.

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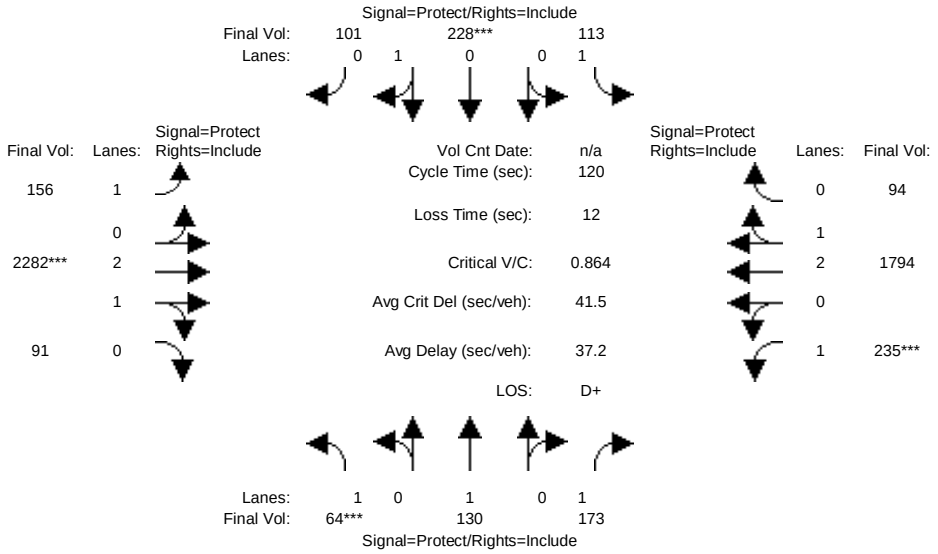
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #21: Stevens Creek Boulevard/Blaney Avenue



Street Name:	Blaney Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	64	130	151	91	228	101	156	1931	91	191	1123	50
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	64	130	151	91	228	101	156	1931	91	191	1123	50
Added Vol:	0	0	22	22	0	0	0	351	0	44	671	44
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	64	130	173	113	228	101	156	2282	91	235	1794	94
User Adj:	1.00	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	130	173	113	228	101	156	2282	91	235	1794	94
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	64	130	173	113	228	101	156	2282	91	235	1794	94
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	130	173	113	228	101	156	2282	91	235	1794	94
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	1.00	1.00	1.00	0.69	0.31	1.00	2.88	0.12	1.00	2.85	0.15
Final Sat.:	1750	1900	1750	1750	1247	553	1750	5385	215	1750	5321	279
Capacity Analysis Module:												
Vol/Sat:	0.04	0.07	0.10	0.06	0.18	0.18	0.09	0.42	0.42	0.13	0.34	0.34
Crit Moves:	****				****			****			****	
Green Time:	7.0	19.3	19.3	12.6	24.9	24.9	15.9	57.8	57.8	18.3	60.2	60.2
Volume/Cap:	0.63	0.43	0.61	0.61	0.88	0.88	0.67	0.88	0.88	0.88	0.67	0.67
Uniform Del:	55.2	45.3	46.9	51.4	46.1	46.1	49.6	28.0	28.0	49.8	22.5	22.5
IncremntDel:	25.7	4.3	9.7	14.4	24.4	24.4	14.5	4.5	4.5	31.3	1.3	1.3
InitQueuDel:	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:	80.9	49.6	56.5	65.8	70.5	70.5	64.1	32.5	32.5	81.1	23.8	23.8
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:	80.9	49.6	56.5	65.8	70.5	70.5	64.1	32.5	32.5	81.1	23.8	23.8
LOS by Move:	F	D	E+	E	E	E	E	C-	C-	F	C	C
HCM2kAvgQ:	90	115	182	133	387	387	178	736	736	305	450	450

Note: Queue reported is the distance per lane in feet.

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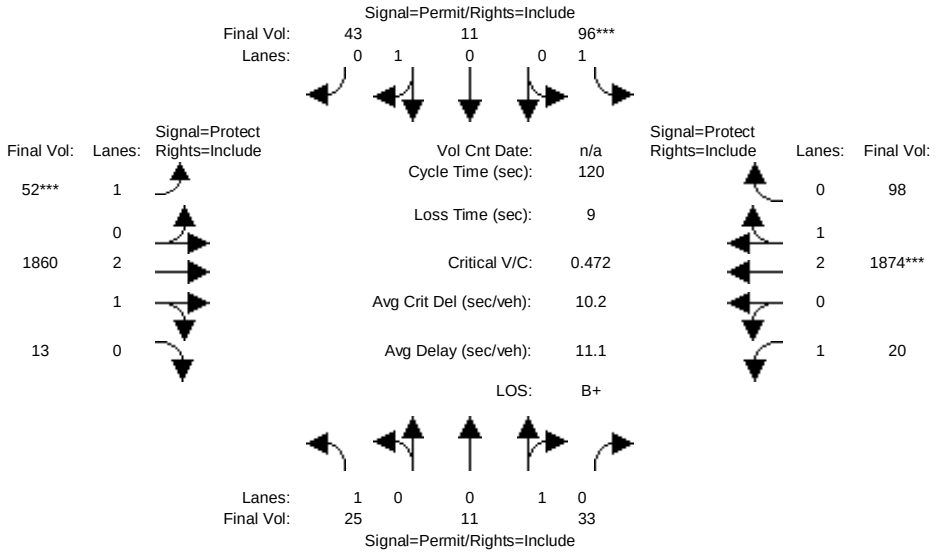
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #22: Stevens Creek Boulevard/Portal Avenue



Street Name:	Portal Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	25	11	33	96	11	43	52	1146	13	20	1671	98
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	11	33	96	11	43	52	1146	13	20	1671	98
Added Vol:	0	0	0	0	0	0	0	714	0	0	203	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	25	11	33	96	11	43	52	1860	13	20	1874	98
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	25	11	33	96	11	43	52	1860	13	20	1874	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	11	33	96	11	43	52	1860	13	20	1874	98
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	25	11	33	96	11	43	52	1860	13	20	1874	98
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	0.25	0.75	1.00	0.20	0.80	1.00	2.98	0.02	1.00	2.85	0.15
Final Sat.:	1750	450	1350	1750	367	1433	1750	5561	39	1750	5321	278
Capacity Analysis Module:												
Vol/Sat:	0.01	0.02	0.02	0.05	0.03	0.03	0.03	0.33	0.33	0.01	0.35	0.35
Crit Moves:				****			****				****	
Green Time:	13.9	13.9	13.9	13.9	13.9	13.9	7.6	82.6	82.6	14.4	89.5	89.5
Volume/Cap:	0.12	0.21	0.21	0.47	0.26	0.26	0.47	0.49	0.49	0.10	0.47	0.47
Uniform Del:	47.5	48.0	48.0	49.6	48.3	48.3	54.3	8.7	8.7	47.0	6.0	6.0
IncremntDel:	1.2	2.3	2.3	7.7	3.0	3.0	13.8	0.4	0.4	0.9	0.4	0.4
InitQueuDel:	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:	48.8	50.3	50.3	57.3	51.3	51.3	68.1	9.2	9.2	47.9	6.4	6.4
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:	48.8	50.3	50.3	57.3	51.3	51.3	68.1	9.2	9.2	47.9	6.4	6.4
LOS by Move:	D	D	D	E+	D-	D-	E	A	A	D	A	A
HCM2kAvgQ:	24	42	42	102	52	52	66	271	271	19	241	241

Note: Queue reported is the distance per lane in feet.

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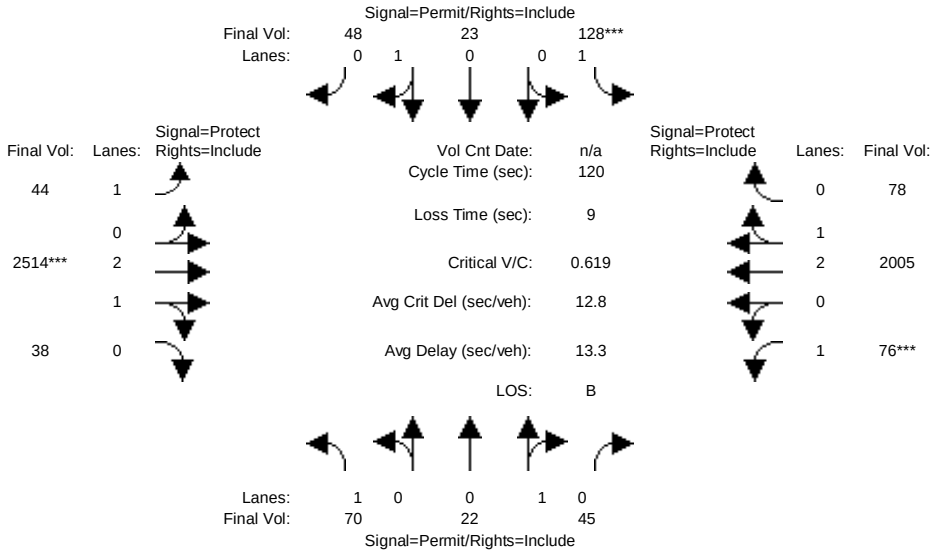
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #22: Stevens Creek Boulevard/Portal Avenue



Street Name:	Portal Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	70	22	45	128	23	48	44	2119	38	76	1247	78
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	70	22	45	128	23	48	44	2119	38	76	1247	78
Added Vol:	0	0	0	0	0	0	0	395	0	0	758	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	70	22	45	128	23	48	44	2514	38	76	2005	78
User Adj:	1.00	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:	70	22	45	128	23	48	44	2514	38	76	2005	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	70	22	45	128	23	48	44	2514	38	76	2005	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	70	22	45	128	23	48	44	2514	38	76	2005	78
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	0.33	0.67	1.00	0.32	0.68	1.00	2.95	0.05	1.00	2.88	0.12
Final Sat.:	1750	591	1209	1750	583	1217	1750	5517	83	1750	5390	210
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.04	0.07	0.04	0.04	0.03	0.46	0.46	0.04	0.37	0.37
Crit Moves:				****				****		****		
Green Time:	14.2	14.2	14.2	14.2	14.2	14.2	13.1	88.4	88.4	8.4	83.7	83.7
Volume/Cap:	0.34	0.31	0.31	0.62	0.33	0.33	0.23	0.62	0.62	0.62	0.53	0.53
Uniform Del:	48.6	48.5	48.5	50.3	48.6	48.6	48.8	7.6	7.6	54.2	8.7	8.7
IncremntDel:	4.4	3.8	3.8	13.1	4.2	4.2	2.8	0.7	0.7	21.2	0.5	0.5
InitQueuDel:	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:	53.0	52.3	52.3	63.4	52.7	52.7	51.6	8.4	8.4	75.4	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:	53.0	52.3	52.3	63.4	52.7	52.7	51.6	8.4	8.4	75.4	9.3	9.3
LOS by Move:	D-	D-	D-	E	D-	D-	D-	A	A	E-	A	A
HCM2kAvgQ:	71	65	65	146	70	70	44	389	389	100	312	312

Note: Queue reported is the distance per lane in feet.

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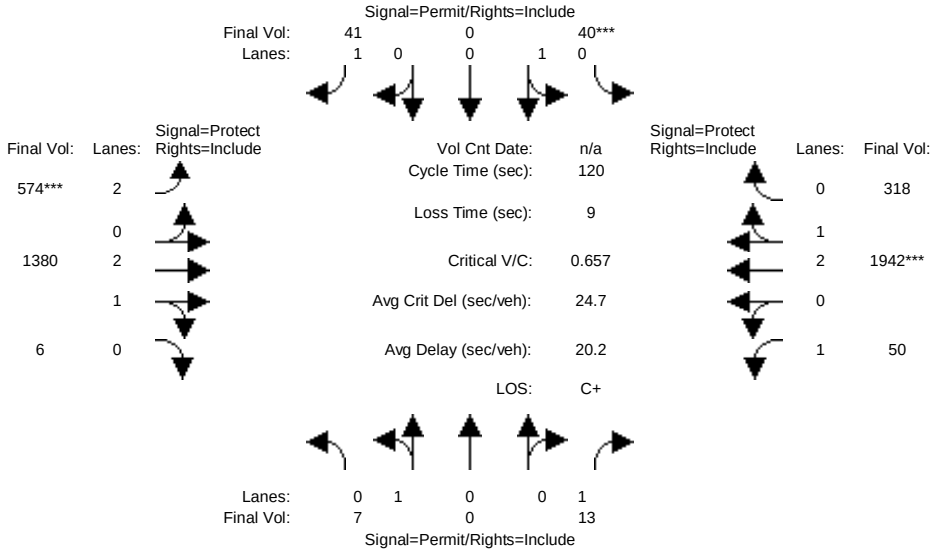
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #23: Stevens Creek Boulevard/Perimeter Road



Street Name:	Perimeter Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	7	0	13	40	0	41	574	1380	6	50	1942	318
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	7	0	13	40	0	41	574	1380	6	50	1942	318
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:	7	0	13	40	0	41	574	1380	6	50	1942	318
User Adj:	1.00	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:	7	0	13	40	0	41	574	1380	6	50	1942	318
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	0	13	40	0	41	574	1380	6	50	1942	318
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	7	0	13	40	0	41	574	1380	6	50	1942	318
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.95	0.95	0.92	0.83	0.98	0.95	0.92	0.99	0.95
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	2.00	2.99	0.01	1.00	2.56	0.44
Final Sat.:	1800	0	1750	1800	0	1750	3150	5576	24	1750	4811	788
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.01	0.02	0.00	0.02	0.18	0.25	0.25	0.03	0.40	0.40
Crit Moves:				****			****				****	
Green Time:	10.0	0.0	10.0	10.0	0.0	10.0	31.4	81.7	81.7	19.3	69.6	69.6
Volume/Cap:	0.05	0.00	0.09	0.27	0.00	0.28	0.70	0.36	0.36	0.18	0.70	0.70
Uniform Del:	50.6	0.0	50.8	51.6	0.0	51.6	40.0	8.1	8.1	43.5	17.8	17.8
IncremntDel:	0.6	0.0	1.2	4.3	0.0	4.8	4.8	0.3	0.3	1.4	1.3	1.3
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	51.2	0.0	52.0	55.9	0.0	56.4	44.8	8.4	8.4	44.9	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:	51.2	0.0	52.0	55.9	0.0	56.4	44.8	8.4	8.4	44.9	19.0	19.0
LOS by Move:	D-	A	D-	E+	A	E+	D	A	A	D	B-	B-
HCM2kAvgQ:	7	0	13	42	0	44	312	180	180	39	458	458

Note: Queue reported is the distance per lane in feet.

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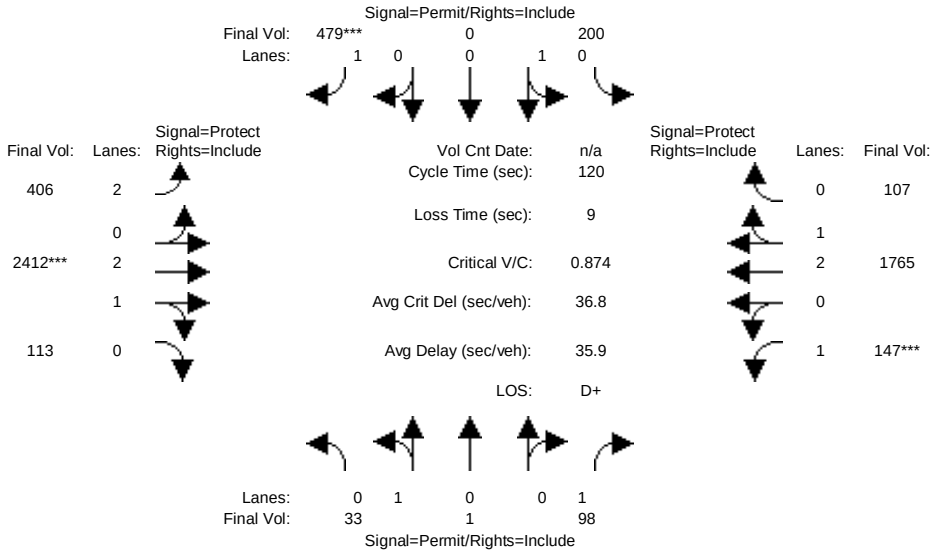
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #23: Stevens Creek Boulevard/Perimeter Road



Street Name:	Perimeter Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	33	1	98	200	0	479	406	2412	113	147	1765	107
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	33	1	98	200	0	479	406	2412	113	147	1765	107
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:	33	1	98	200	0	479	406	2412	113	147	1765	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	33	1	98	200	0	479	406	2412	113	147	1765	107
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	1	98	200	0	479	406	2412	113	147	1765	107
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	33	1	98	200	0	479	406	2412	113	147	1765	107
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.95	0.95	0.92	0.83	0.98	0.95	0.92	0.98	0.95
Lanes:	0.97	0.03	1.00	1.00	0.00	1.00	2.00	2.86	0.14	1.00	2.82	0.18
Final Sat.:	1747	53	1750	1800	0	1750	3150	5349	251	1750	5279	320
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.06	0.11	0.00	0.27	0.13	0.45	0.45	0.08	0.33	0.33
Crit Moves:						****		****		****		
Green Time:	37.6	37.6	37.6	37.6	0.0	37.6	20.4	61.9	61.9	11.5	53.0	53.0
Volume/Cap:	0.06	0.06	0.18	0.35	0.00	0.87	0.76	0.87	0.87	0.87	0.76	0.76
Uniform Del:	28.9	28.9	30.0	31.8	0.0	39.0	47.4	25.6	25.6	53.5	28.1	28.1
IncremntDel:	0.2	0.2	0.7	1.7	0.0	17.4	9.6	4.0	4.0	42.5	2.2	2.2
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	29.1	29.1	30.7	33.6	0.0	56.4	57.0	29.7	29.7	96.0	30.3	30.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	29.1	29.1	30.7	33.6	0.0	56.4	57.0	29.7	29.7	96.0	30.3	30.3
LOS by Move:	C	C	C	C-	A	E+	E+	C	C	F	C	C
HCM2kAvgQ:	23	23	70	150	0	526	257	760	760	157	487	487

Note: Queue reported is the distance per lane in feet.

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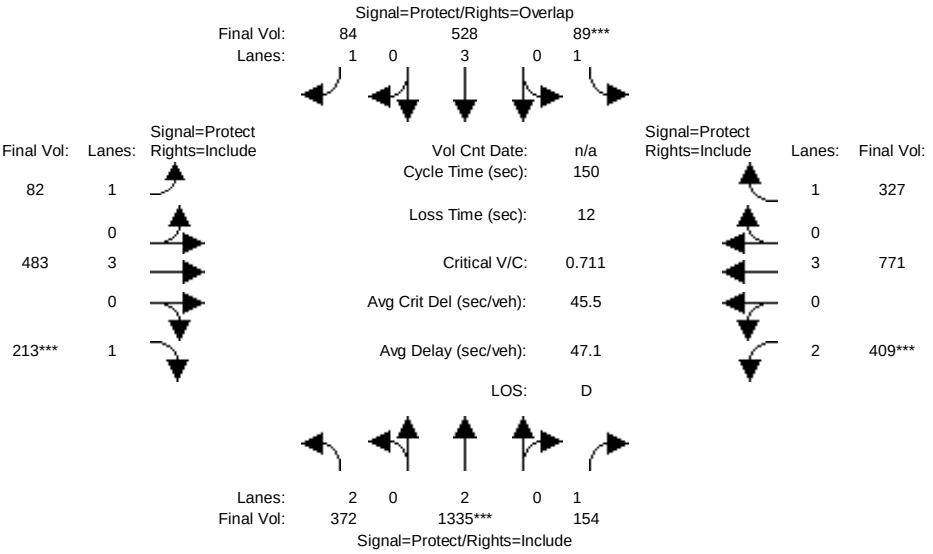
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #24: Wolfe Road/El Camino Real



Street Name:	Wolfe Road						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	364	1327	142	89	501	84	82	483	186	369	771	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:	364	1327	142	89	501	84	82	483	186	369	771	327
Added Vol:	8	8	12	0	27	0	0	0	27	40	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	372	1335	154	89	528	84	82	483	213	409	771	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:	372	1335	154	89	528	84	82	483	213	409	771	327
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	372	1335	154	89	528	84	82	483	213	409	771	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:	372	1335	154	89	528	84	82	483	213	409	771	327
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3150	3800	1750	1750	5700	1750	1750	5700	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.12	0.35	0.09	0.05	0.09	0.05	0.05	0.08	0.12	0.13	0.14	0.19
Crit Moves:		****		****					****	****		
Green Time:	47.6	74.2	74.2	10.7	37.3	48.0	10.6	25.7	25.7	27.4	42.5	42.5
Volume/Cap:	0.37	0.71	0.18	0.71	0.37	0.15	0.66	0.49	0.71	0.71	0.48	0.66
Uniform Del:	39.6	29.6	21.0	68.1	46.6	36.5	67.9	56.3	58.6	57.6	44.6	47.4
IncremntDel:	1.1	2.3	0.4	28.9	0.8	0.6	24.3	1.8	13.4	7.3	1.0	6.8
InitQueuDel:	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:	40.7	31.9	21.5	97.0	47.4	37.0	92.2	58.1	72.0	64.8	45.6	54.2
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:	40.7	31.9	21.5	97.0	47.4	37.0	92.2	58.1	72.0	64.8	45.6	54.2
LOS by Move:	D	C	C+	F	D	D+	F	E+	E	E	D	D-
HCM2kAvgQ:	196	599	102	143	166	72	129	175	279	294	244	371

Note: Queue reported is the distance per lane in feet.

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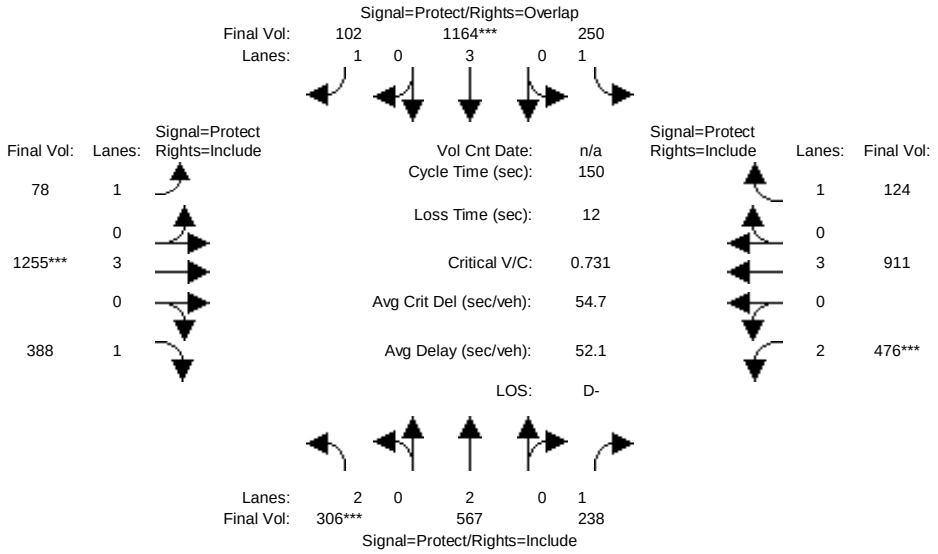
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #24: Wolfe Road/El Camino Real



Street Name:	Wolfe Road						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	277	538	194	250	1149	102	78	1255	373	454	911	124
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	277	538	194	250	1149	102	78	1255	373	454	911	124
Added Vol:	29	29	44	0	15	0	0	0	15	22	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	306	567	238	250	1164	102	78	1255	388	476	911	124
User Adj:	1.00	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:	306	567	238	250	1164	102	78	1255	388	476	911	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	306	567	238	250	1164	102	78	1255	388	476	911	124
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	306	567	238	250	1164	102	78	1255	388	476	911	124
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3150	3800	1750	1750	5700	1750	1750	5700	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.15	0.14	0.14	0.20	0.06	0.04	0.22	0.22	0.15	0.16	0.07
Crit Moves:	****				****			****			****	
Green Time:	19.9	31.6	31.6	30.2	41.9	59.1	17.2	45.2	45.2	31.0	59.0	59.0
Volume/Cap:	0.73	0.71	0.65	0.71	0.73	0.15	0.39	0.73	0.74	0.73	0.41	0.18
Uniform Del:	62.5	54.9	54.1	55.8	49.0	29.2	61.5	47.0	47.1	55.6	32.9	29.7
IncremntDel:	10.7	5.3	8.5	11.4	3.0	0.5	5.6	2.8	8.9	7.1	0.5	0.6
InitQueuDel:	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:	73.2	60.2	62.6	67.2	52.0	29.7	67.1	49.8	55.9	62.7	33.4	30.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	73.2	60.2	62.6	67.2	52.0	29.7	67.1	49.8	55.9	62.7	33.4	30.3
LOS by Move:	E	E	E	E	D-	C	E	D	E+	E	C-	C
HCM2kAvgQ:	239	327	288	316	426	79	97	451	456	337	245	97

Note: Queue reported is the distance per lane in feet.

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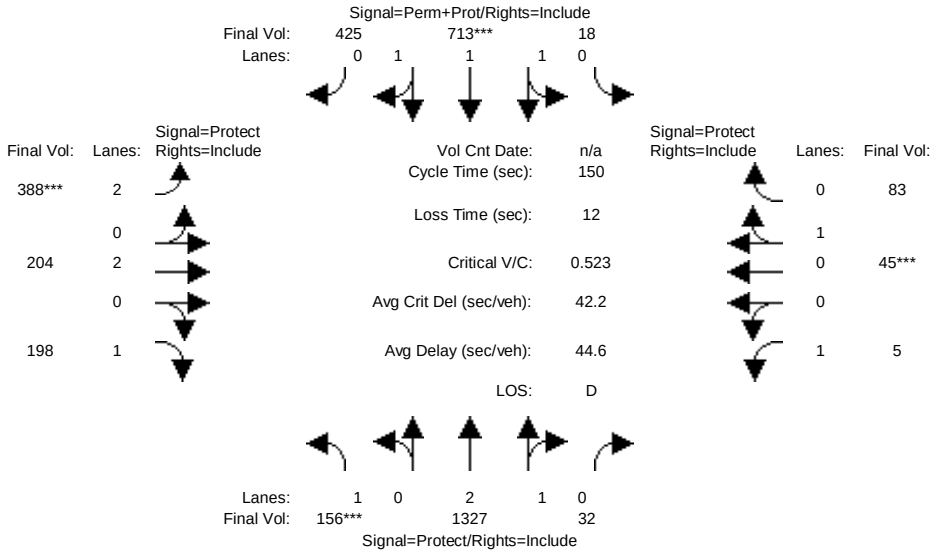
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #25: Wolfe Road/Fremont Avenue



Street Name:	Wolfe Road						Fremont Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	152	1300	32	18	620	425	388	204	185	5	45	83
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	152	1300	32	18	620	425	388	204	185	5	45	83
Added Vol:	4	27	0	0	93	0	0	0	13	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	156	1327	32	18	713	425	388	204	198	5	45	83
User Adj:	1.00	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:	156	1327	32	18	713	425	388	204	198	5	45	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	156	1327	32	18	713	425	388	204	198	5	45	83
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	156	1327	32	18	713	425	388	204	198	5	45	83
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.95	0.98	0.95	0.83	1.00	0.92	0.92	0.95	0.95
Lanes:	1.00	2.93	0.07	0.05	1.95	1.00	2.00	2.00	1.00	1.00	0.35	0.65
Final Sat.:	1750	5468	132	91	3614	1800	3150	3800	1750	1750	633	1167
Capacity Analysis Module:												
Vol/Sat:	0.09	0.24	0.24	0.00	0.20	0.24	0.12	0.05	0.11	0.00	0.07	0.07
Crit Moves:	****				****		****				****	
Green Time:	26.2	52.8	52.8	45.9	69.5	69.5	26.8	29.9	29.9	12.3	15.5	15.5
Volume/Cap:	0.51	0.69	0.69	0.64	0.43	0.51	0.69	0.27	0.57	0.03	0.69	0.69
Uniform Del:	56.1	41.6	41.6	45.0	26.9	28.3	57.7	50.8	54.2	63.3	64.9	64.9
IncremntDel:	6.0	2.0	2.0	1.8	0.5	0.8	6.8	0.9	6.5	0.4	18.9	18.9
InitQueuDel:	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:	62.0	43.6	43.6	46.8	27.4	29.1	64.5	51.7	60.7	63.8	83.9	83.9
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:	62.0	43.6	43.6	46.8	27.4	29.1	64.5	51.7	60.7	63.8	83.9	83.9
LOS by Move:	E	D	D	D	C	C	E	D-	E	E	F	F
HCM2kAvgQ:	185	462	462	380	279	354	277	99	233	6	181	181

Note: Queue reported is the distance per lane in feet.

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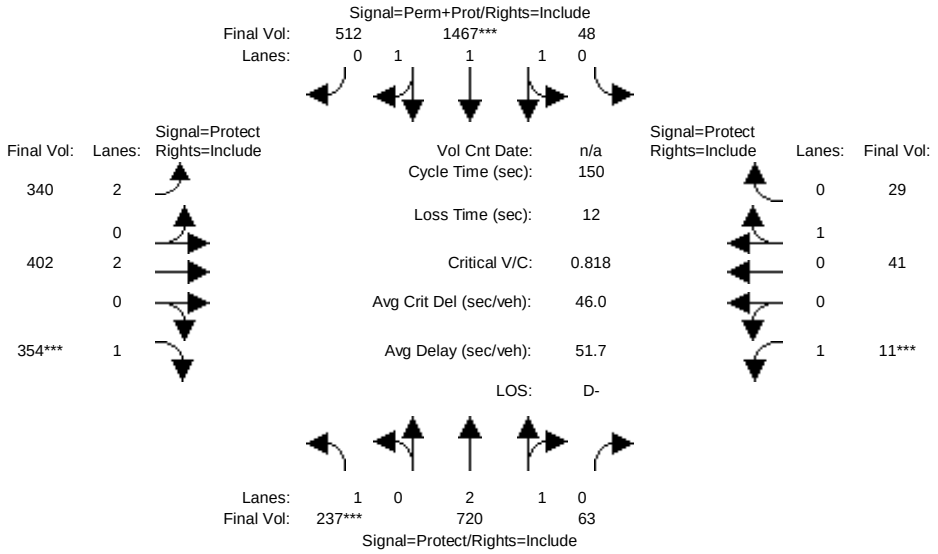
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #25: Wolfe Road/Fremont Avenue



Street Name:	Wolfe Road						Fremont Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	222	618	63	48	1415	512	340	402	347	11	41	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	222	618	63	48	1415	512	340	402	347	11	41	29
Added Vol:	15	102	0	0	52	0	0	0	7	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	237	720	63	48	1467	512	340	402	354	11	41	29
User Adj:	1.00	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:	237	720	63	48	1467	512	340	402	354	11	41	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	237	720	63	48	1467	512	340	402	354	11	41	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	237	720	63	48	1467	512	340	402	354	11	41	29
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.95	0.97	0.95	0.83	1.00	0.92	0.92	0.95	0.95
Lanes:	1.00	2.75	0.25	0.07	2.16	0.77	2.00	2.00	1.00	1.00	0.59	0.41
Final Sat.:	1750	5149	451	130	3980	1389	3150	3800	1750	1750	1054	746
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.14	0.00	0.37	0.37	0.11	0.11	0.20	0.01	0.04	0.04
Crit Moves:	****				****				****	****		
Green Time:	25.2	25.8	25.8	70.9	68.5	68.5	27.4	37.3	37.3	7.0	16.9	16.9
Volume/Cap:	0.81	0.81	0.81	0.78	0.81	0.81	0.59	0.43	0.81	0.13	0.34	0.34
Uniform Del:	60.1	59.8	59.8	33.0	35.0	35.0	56.2	47.4	53.1	68.6	61.4	61.4
IncremntDel:	20.7	7.5	7.5	2.4	2.9	2.9	4.4	1.4	15.3	3.4	4.6	4.6
InitQueuDel:	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:	80.7	67.3	67.3	35.4	37.9	37.9	60.6	48.8	68.4	72.0	66.0	66.0
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:	80.7	67.3	67.3	35.4	37.9	37.9	60.6	48.8	68.4	72.0	66.0	66.0
LOS by Move:	F	E	E	D+	D+	D+	E	D	E	E	E	E
HCM2kAvgQ:	333	344	344	687	717	717	229	194	461	16	84	84

Note: Queue reported is the distance per lane in feet.

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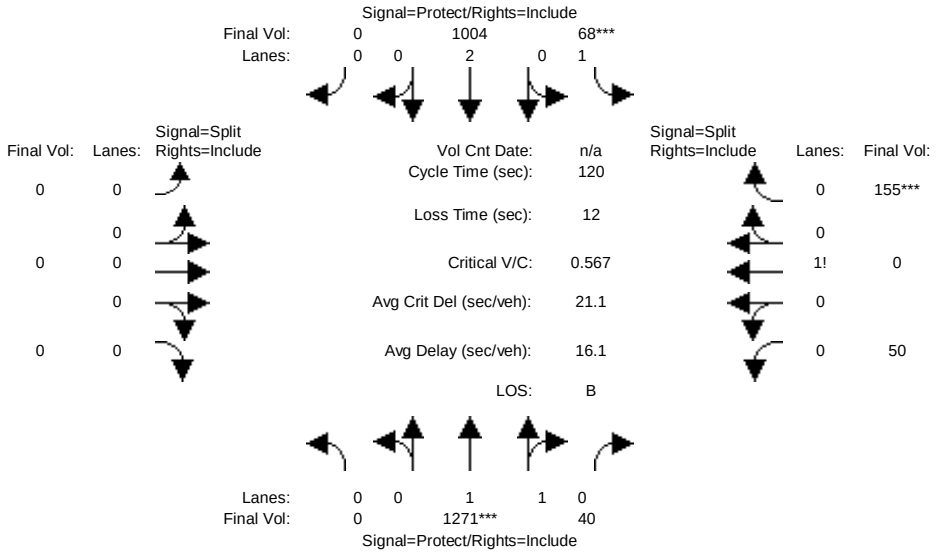
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #26: Wolfe Road/Marion Way



Street Name:	Wolfe Road						Marion Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1240	40	68	898	0	0	0	0	50	0	155
Growth Adj:	1.00	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	1240	40	68	898	0	0	0	0	50	0	155
Added Vol:	0	31	0	0	106	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1271	40	68	1004	0	0	0	0	50	0	155
User Adj:	1.00	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	1271	40	68	1004	0	0	0	0	50	0	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1271	40	68	1004	0	0	0	0	50	0	155
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1271	40	68	1004	0	0	0	0	50	0	155
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	0.00	1.94	0.06	1.00	2.00	0.00	0.00	0.00	0.00	0.24	0.00	0.76
Final Sat.:	0	3587	113	1750	3800	0	0	0	0	427	0	1323
Capacity Analysis Module:												
Vol/Sat:	0.00	0.35	0.35	0.04	0.26	0.00	0.00	0.00	0.00	0.12	0.00	0.12
Crit Moves:		****		****								****
Green Time:	0.0	75.0	75.0	8.2	83.2	0.0	0.0	0.0	0.0	24.8	0.0	24.8
Volume/Cap:	0.00	0.57	0.57	0.57	0.38	0.00	0.00	0.00	0.00	0.57	0.00	0.57
Uniform Del:	0.0	13.1	13.1	54.2	7.7	0.0	0.0	0.0	0.0	42.8	0.0	42.8
IncremntDel:	0.0	1.0	1.0	18.0	0.4	0.0	0.0	0.0	0.0	6.3	0.0	6.3
InitQueuDel:	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	14.1	14.1	72.2	8.1	0.0	0.0	0.0	0.0	49.1	0.0	49.1
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	14.1	14.1	72.2	8.1	0.0	0.0	0.0	0.0	49.1	0.0	49.1
LOS by Move:	A	B	B	E	A	A	A	A	A	D	A	D
HCM2kAvgQ:	0	358	358	88	190	0	0	0	0	198	0	198

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
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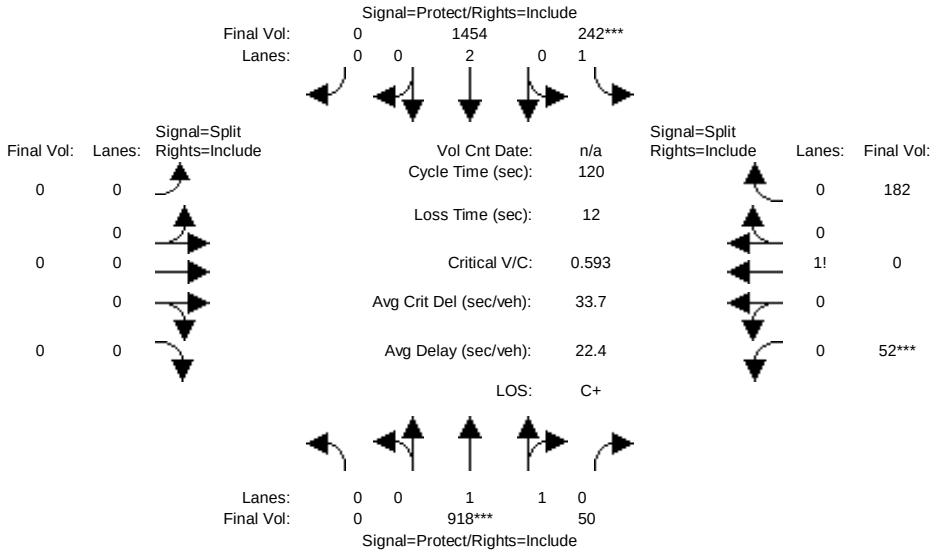
Intersection #26: Wolfe Road/Marion Way



Street Name:	Wolfe Road						Marion Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	802	50	242	1395	0	0	0	0	52	0	182
Growth Adj:	1.00	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	802	50	242	1395	0	0	0	0	52	0	182
Added Vol:	0	116	0	0	59	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	918	50	242	1454	0	0	0	0	52	0	182
User Adj:	1.00	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	918	50	242	1454	0	0	0	0	52	0	182
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	918	50	242	1454	0	0	0	0	52	0	182
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	918	50	242	1454	0	0	0	0	52	0	182
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	0.00	1.89	0.11	1.00	2.00	0.00	0.00	0.00	0.00	0.22	0.00	0.78
Final Sat.:	0	3509	191	1750	3800	0	0	0	0	389	0	1361
Capacity Analysis Module:												
Vol/Sat:	0.00	0.26	0.26	0.14	0.38	0.00	0.00	0.00	0.00	0.13	0.00	0.13
Crit Moves:		****		****						****		
Green Time:	0.0	53.0	53.0	28.0	80.9	0.0	0.0	0.0	0.0	27.1	0.0	27.1
Volume/Cap:	0.00	0.59	0.59	0.59	0.57	0.00	0.00	0.00	0.00	0.59	0.00	0.59
Uniform Del:	0.0	25.4	25.4	40.9	10.3	0.0	0.0	0.0	0.0	41.5	0.0	41.5
IncremntDel:	0.0	1.6	1.6	6.2	0.9	0.0	0.0	0.0	0.0	6.4	0.0	6.4
InitQueuDel:	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	27.0	27.0	47.2	11.2	0.0	0.0	0.0	0.0	48.0	0.0	48.0
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	27.0	27.0	47.2	11.2	0.0	0.0	0.0	0.0	48.0	0.0	48.0
LOS by Move:	A	C	C	D	B+	A	A	A	A	D	A	D
HCM2kAvgQ:	0	349	349	229	352	0	0	0	0	224	0	224

Note: Queue reported is the distance per lane in feet.

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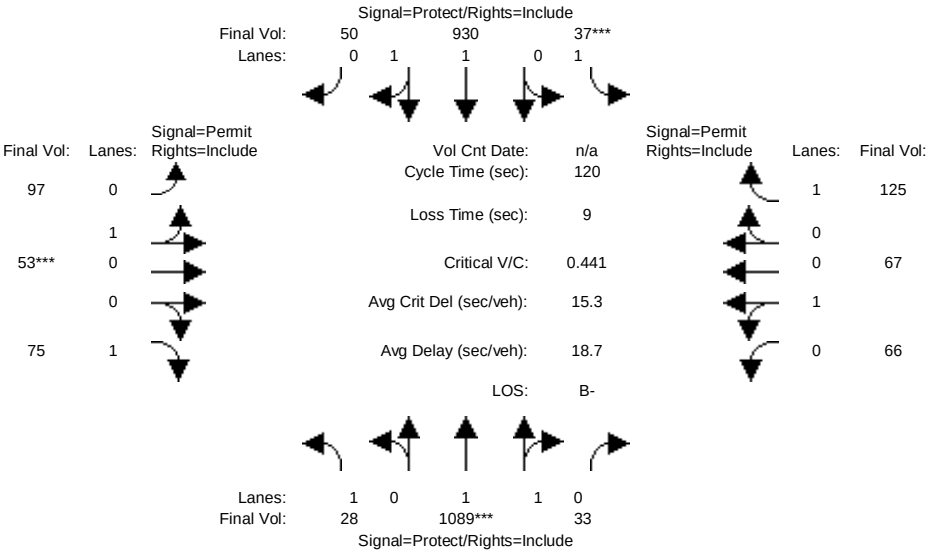
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #27: Wolfe Road/Iverness Avenue



Street Name:	Wolfe Road						Iverness Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	24	1058	29	37	824	50	97	53	60	54	67	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	24	1058	29	37	824	50	97	53	60	54	67	125
Added Vol:	4	31	4	0	106	0	0	0	15	12	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	1089	33	37	930	50	97	53	75	66	67	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	28	1089	33	37	930	50	97	53	75	66	67	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	28	1089	33	37	930	50	97	53	75	66	67	125
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	28	1089	33	37	930	50	97	53	75	66	67	125
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.94	0.06	1.00	1.90	0.10	0.65	0.35	1.00	0.50	0.50	1.00
Final Sat.:	1750	3591	109	1750	3511	189	1164	636	1750	893	907	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.30	0.30	0.02	0.26	0.26	0.08	0.08	0.04	0.07	0.07	0.07
Crit Moves:		****		****				****				
Green Time:	16.0	81.6	81.6	7.0	72.6	72.6	22.4	22.4	22.4	22.4	22.4	22.4
Volume/Cap:	0.12	0.45	0.45	0.36	0.44	0.44	0.45	0.45	0.23	0.40	0.40	0.38
Uniform Del:	45.8	8.8	8.8	54.4	12.7	12.7	43.3	43.3	41.5	42.8	42.8	42.7
IncremntDel:	1.1	0.6	0.6	9.7	0.6	0.6	4.2	4.2	1.6	3.5	3.5	3.4
InitQueuDel:	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:	46.9	9.4	9.4	64.0	13.4	13.4	47.5	47.5	43.1	46.3	46.3	46.1
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:	46.9	9.4	9.4	64.0	13.4	13.4	47.5	47.5	43.1	46.3	46.3	46.1
LOS by Move:	D	A	A	E	B	B	D	D	D	D	D	D
HCM2kAvgQ:	26	241	241	46	245	245	137	137	65	119	119	114

Note: Queue reported is the distance per lane in feet.

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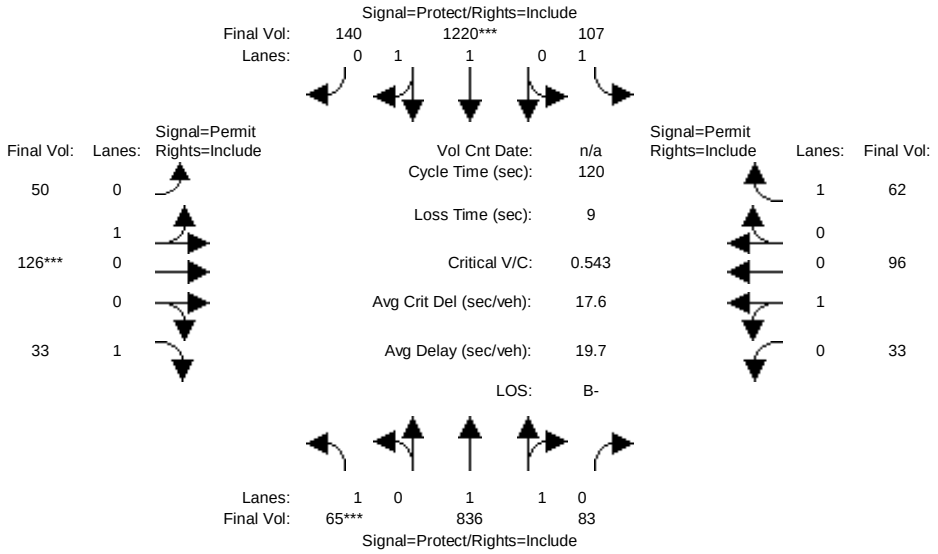
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #27: Wolfe Road/Iverness Avenue



Street Name:	Wolfe Road						Iverness Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	50	720	68	107	1161	140	50	126	25	26	96	62
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	720	68	107	1161	140	50	126	25	26	96	62
Added Vol:	15	116	15	0	59	0	0	0	8	7	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	65	836	83	107	1220	140	50	126	33	33	96	62
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	836	83	107	1220	140	50	126	33	33	96	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	65	836	83	107	1220	140	50	126	33	33	96	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	65	836	83	107	1220	140	50	126	33	33	96	62
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.81	0.19	1.00	1.79	0.21	0.28	0.72	1.00	0.26	0.74	1.00
Final Sat.:	1750	3366	334	1750	3319	381	511	1289	1750	460	1340	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.25	0.25	0.06	0.37	0.37	0.10	0.10	0.02	0.07	0.07	0.04
Crit Moves:	****				****			****				
Green Time:	8.2	71.7	71.7	17.7	81.2	81.2	21.6	21.6	21.6	21.6	21.6	21.6
Volume/Cap:	0.54	0.42	0.42	0.42	0.54	0.54	0.54	0.54	0.10	0.40	0.40	0.20
Uniform Del:	54.1	12.9	12.9	46.5	9.9	9.9	44.7	44.7	41.1	43.5	43.5	41.8
IncremntDel:	16.6	0.6	0.6	4.9	0.9	0.9	6.4	6.4	0.7	3.6	3.6	1.4
InitQueuDel:	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:	70.6	13.5	13.5	51.4	10.8	10.8	51.1	51.1	41.8	47.1	47.1	43.2
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:	70.6	13.5	13.5	51.4	10.8	10.8	51.1	51.1	41.8	47.1	47.1	43.2
LOS by Move:	E	B	B	D-	B+	B+	D-	D-	D	D	D	D
HCM2kAvgQ:	83	228	228	105	327	327	169	169	28	116	116	54

Note: Queue reported is the distance per lane in feet.

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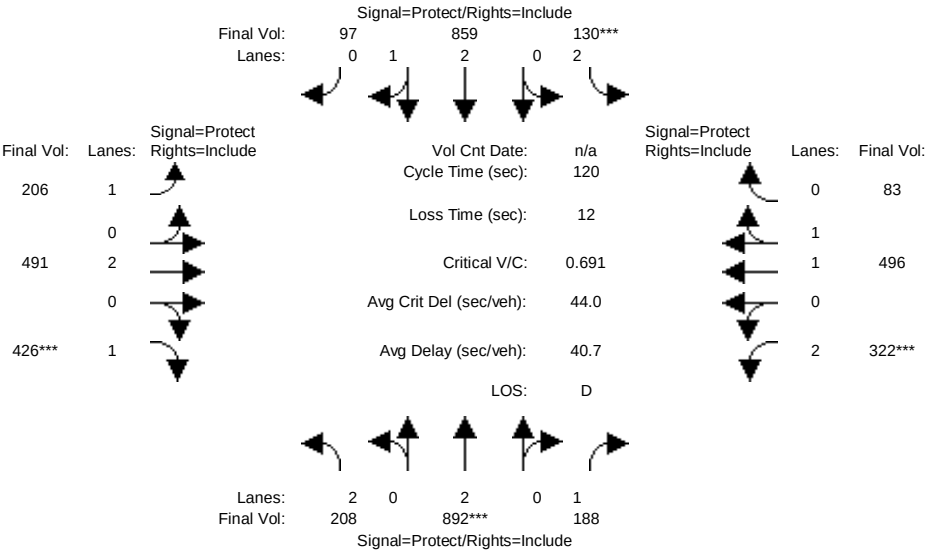
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #28: Wolfe Road/Homestead Road



Street Name:	Wolfe Road						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	196	853	169	130	726	97	206	491	386	309	496	83
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	196	853	169	130	726	97	206	491	386	309	496	83
Added Vol:	12	39	19	0	133	0	0	0	40	13	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	208	892	188	130	859	97	206	491	426	322	496	83
User Adj:	1.00	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:	208	892	188	130	859	97	206	491	426	322	496	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	208	892	188	130	859	97	206	491	426	322	496	83
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	208	892	188	130	859	97	206	491	426	322	496	83
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92	0.83	0.98	0.95
Lanes:	2.00	2.00	1.00	2.00	2.68	0.32	1.00	2.00	1.00	2.00	1.71	0.29
Final Sat.:	3150	3800	1750	3150	5031	568	1750	3800	1750	3150	3169	530
Capacity Analysis Module:												
Vol/Sat:	0.07	0.23	0.11	0.04	0.17	0.17	0.12	0.13	0.24	0.10	0.16	0.16
Crit Moves:		****		****					****	****		
Green Time:	13.4	40.8	40.8	7.2	34.6	34.6	25.8	42.3	42.3	17.8	34.3	34.3
Volume/Cap:	0.59	0.69	0.32	0.69	0.59	0.59	0.55	0.37	0.69	0.69	0.55	0.55
Uniform Del:	50.7	34.2	29.3	55.3	36.7	36.7	41.9	28.9	33.3	48.5	36.3	36.3
IncremntDel:	7.2	3.0	1.4	18.8	1.6	1.6	5.6	0.8	6.2	8.1	2.0	2.0
InitQueuDel:	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:	57.9	37.2	30.7	74.1	38.3	38.3	47.6	29.7	39.5	56.7	38.3	38.3
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:	57.9	37.2	30.7	74.1	38.3	38.3	47.6	29.7	39.5	56.7	38.3	38.3
LOS by Move:	E+	D+	C	E	D+	D+	D	C	D	E+	D+	D+
HCM2kAvgQ:	132	372	137	105	267	267	195	166	382	201	239	239

Note: Queue reported is the distance per lane in feet.

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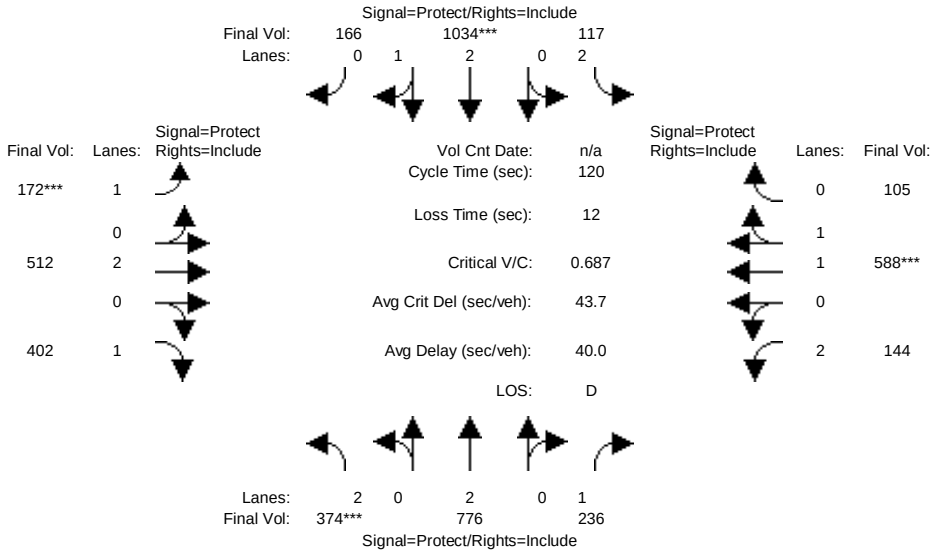
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #28: Wolfe Road/Homestead Road



Street Name:	Wolfe Road						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	330	631	163	117	960	166	172	512	380	137	588	105
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	330	631	163	117	960	166	172	512	380	137	588	105
Added Vol:	44	145	73	0	74	0	0	0	22	7	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	374	776	236	117	1034	166	172	512	402	144	588	105
User Adj:	1.00	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:	374	776	236	117	1034	166	172	512	402	144	588	105
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	374	776	236	117	1034	166	172	512	402	144	588	105
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	374	776	236	117	1034	166	172	512	402	144	588	105
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92	0.83	0.98	0.95
Lanes:	2.00	2.00	1.00	2.00	2.57	0.43	1.00	2.00	1.00	2.00	1.69	0.31
Final Sat.:	3150	3800	1750	3150	4824	775	1750	3800	1750	3150	3139	561
Capacity Analysis Module:												
Vol/Sat:	0.12	0.20	0.13	0.04	0.21	0.21	0.10	0.13	0.23	0.05	0.19	0.19
Crit Moves:	****				****		****				****	
Green Time:	20.7	45.2	45.2	12.9	37.4	37.4	17.2	39.8	39.8	10.1	32.7	32.7
Volume/Cap:	0.69	0.54	0.36	0.35	0.69	0.69	0.69	0.41	0.69	0.54	0.69	0.69
Uniform Del:	46.6	29.3	26.9	49.6	36.2	36.2	48.9	31.0	34.8	52.7	39.1	39.1
IncremntDel:	6.9	1.5	1.5	2.8	2.2	2.2	14.4	1.0	6.7	7.8	3.8	3.8
InitQueuDel:	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:	53.5	30.8	28.4	52.4	38.4	38.4	63.2	32.0	41.5	60.5	42.9	42.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.5	30.8	28.4	52.4	38.4	38.4	63.2	32.0	41.5	60.5	42.9	42.9
LOS by Move:	D-	C	C	D-	D+	D+	E	C	D	E	D	D
HCM2kAvgQ:	224	282	168	67	348	348	195	182	368	96	316	316

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
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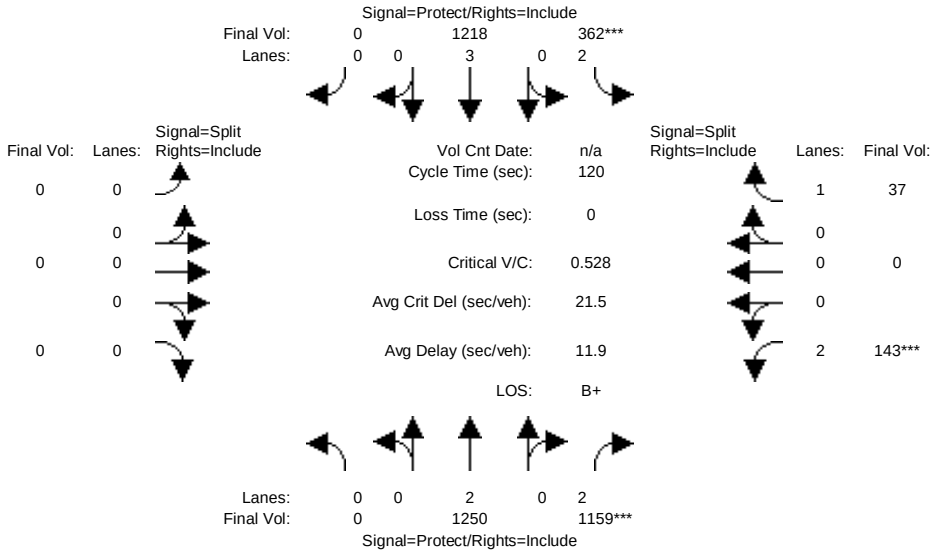
Intersection #29: Wolfe Road/Apple Campus 2 Driveway



Street Name:	Wolfe Road						Apple Campus 2 Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	0	0	10	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1180	1159	362	1032	0	0	0	0	143	0	37
Growth Adj:	1.00	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	1180	1159	362	1032	0	0	0	0	143	0	37
Added Vol:	0	70	0	0	186	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1250	1159	362	1218	0	0	0	0	143	0	37
User Adj:	1.00	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	1250	1159	362	1218	0	0	0	0	143	0	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1250	1159	362	1218	0	0	0	0	143	0	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1250	1159	362	1218	0	0	0	0	143	0	37
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	2.00	2.00	2.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3800	3150	3150	5700	0	0	0	0	3150	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.33	0.37	0.11	0.21	0.00	0.00	0.00	0.00	0.05	0.00	0.02
Crit Moves:			****	****						****		
Green Time:	0.0	83.6	83.6	26.1	110	0.0	0.0	0.0	0.0	10.3	0.0	10.3
Volume/Cap:	0.00	0.47	0.53	0.53	0.23	0.00	0.00	0.00	0.00	0.53	0.00	0.25
Uniform Del:	0.0	8.2	8.7	41.5	0.6	0.0	0.0	0.0	0.0	52.5	0.0	51.2
IncremntDel:	0.0	0.6	0.9	2.9	0.1	0.0	0.0	0.0	0.0	7.2	0.0	3.9
InitQueuDel:	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	8.8	9.7	44.4	0.7	0.0	0.0	0.0	0.0	59.7	0.0	55.1
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	8.8	9.7	44.4	0.7	0.0	0.0	0.0	0.0	59.7	0.0	55.1
LOS by Move:	A	A	A	D	A	A	A	A	A	E+	A	E+
HCM2kAvgQ:	0	258	307	188	45	0	0	0	0	94	0	39

Note: Queue reported is the distance per lane in feet.

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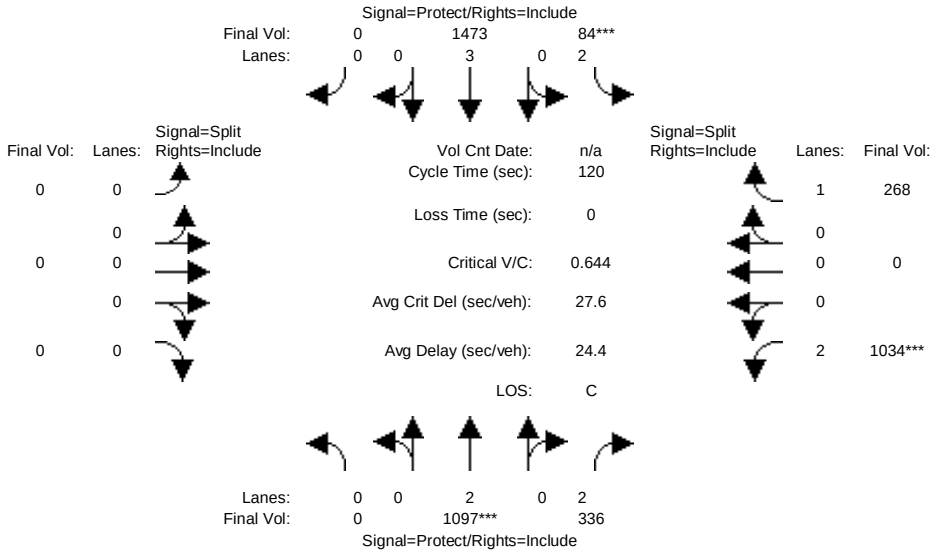
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #29: Wolfe Road/Apple Campus 2 Driveway



Street Name:	Wolfe Road						Apple Campus 2 Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	0	0	10	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	836	336	84	1370	0	0	0	0	1034	0	268
Growth Adj:	1.00	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	836	336	84	1370	0	0	0	0	1034	0	268
Added Vol:	0	261	0	0	103	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1097	336	84	1473	0	0	0	0	1034	0	268
User Adj:	1.00	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	1097	336	84	1473	0	0	0	0	1034	0	268
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1097	336	84	1473	0	0	0	0	1034	0	268
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1097	336	84	1473	0	0	0	0	1034	0	268
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	2.00	2.00	2.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3800	3150	3150	5700	0	0	0	0	3150	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.29	0.11	0.03	0.26	0.00	0.00	0.00	0.00	0.33	0.00	0.15
Crit Moves:		****		****						****		
Green Time:	0.0	53.8	53.8	5.0	58.8	0.0	0.0	0.0	0.0	61.2	0.0	61.2
Volume/Cap:	0.00	0.64	0.24	0.64	0.53	0.00	0.00	0.00	0.00	0.64	0.00	0.30
Uniform Del:	0.0	25.7	20.4	56.6	21.0	0.0	0.0	0.0	0.0	21.4	0.0	17.0
IncremntDel:	0.0	1.9	0.4	21.9	0.7	0.0	0.0	0.0	0.0	2.0	0.0	0.9
InitQueuDel:	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	27.5	20.8	78.6	21.8	0.0	0.0	0.0	0.0	23.4	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	27.5	20.8	78.6	21.8	0.0	0.0	0.0	0.0	23.4	0.0	17.9
LOS by Move:	A	C	C+	E-	C+	A	A	A	A	C	A	B
HCM2kAvgQ:	0	398	112	74	309	0	0	0	0	423	0	151

Note: Queue reported is the distance per lane in feet.

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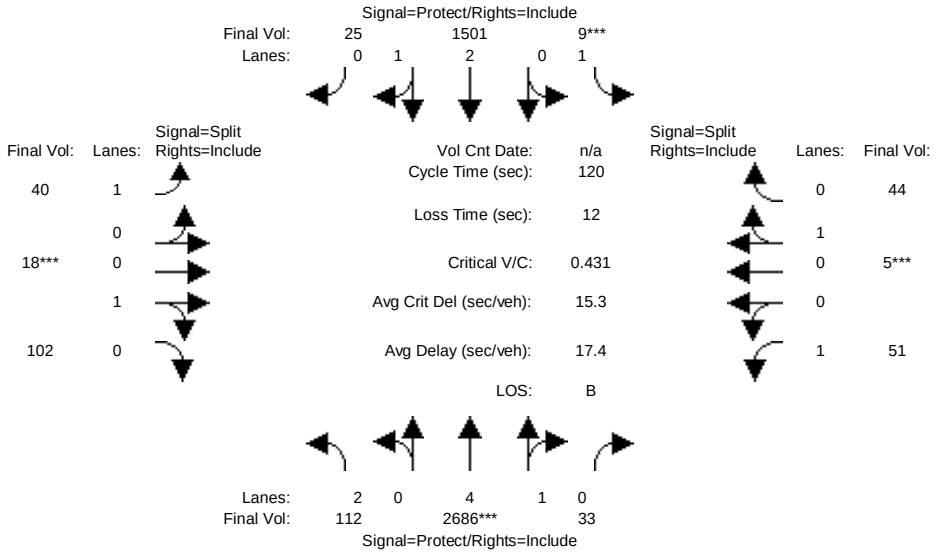
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #30: Wolfe Road/Pruneridge Avenue



Street Name:	Wolfe Road						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	112	2616	33	9	1315	25	40	18	102	51	5	44
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	112	2616	33	9	1315	25	40	18	102	51	5	44
Added Vol:	0	70	0	0	186	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	112	2686	33	9	1501	25	40	18	102	51	5	44
User Adj:	1.00	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:	112	2686	33	9	1501	25	40	18	102	51	5	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	112	2686	33	9	1501	25	40	18	102	51	5	44
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	112	2686	33	9	1501	25	40	18	102	51	5	44
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	2.00	4.94	0.06	1.00	2.95	0.05	1.00	0.15	0.85	1.00	0.10	0.90
Final Sat.:	3150	9286	114	1750	5508	92	1750	270	1530	1750	184	1616
Capacity Analysis Module:												
Vol/Sat:	0.04	0.29	0.29	0.01	0.27	0.27	0.02	0.07	0.07	0.03	0.03	0.03
Crit Moves:		****			****			****			****	
Green Time:	14.3	74.0	74.0	7.0	66.7	66.7	17.0	17.0	17.0	10.0	10.0	10.0
Volume/Cap:	0.30	0.47	0.47	0.09	0.49	0.49	0.16	0.47	0.47	0.35	0.33	0.33
Uniform Del:	48.3	12.4	12.4	53.5	16.3	16.3	45.2	47.3	47.3	51.9	51.8	51.8
IncremntDel:	2.0	0.3	0.3	1.7	0.6	0.6	1.4	6.1	6.1	6.5	5.7	5.7
InitQueuDel:	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:	50.3	12.7	12.7	55.2	16.8	16.8	46.6	53.4	53.4	58.4	57.5	57.5
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:	50.3	12.7	12.7	55.2	16.8	16.8	46.6	53.4	53.4	58.4	57.5	57.5
LOS by Move:	D	B	B	E+	B	B	D	D-	D-	E+	E+	E+
HCM2kAvgQ:	62	269	269	10	287	287	37	118	118	56	52	52

Note: Queue reported is the distance per lane in feet.

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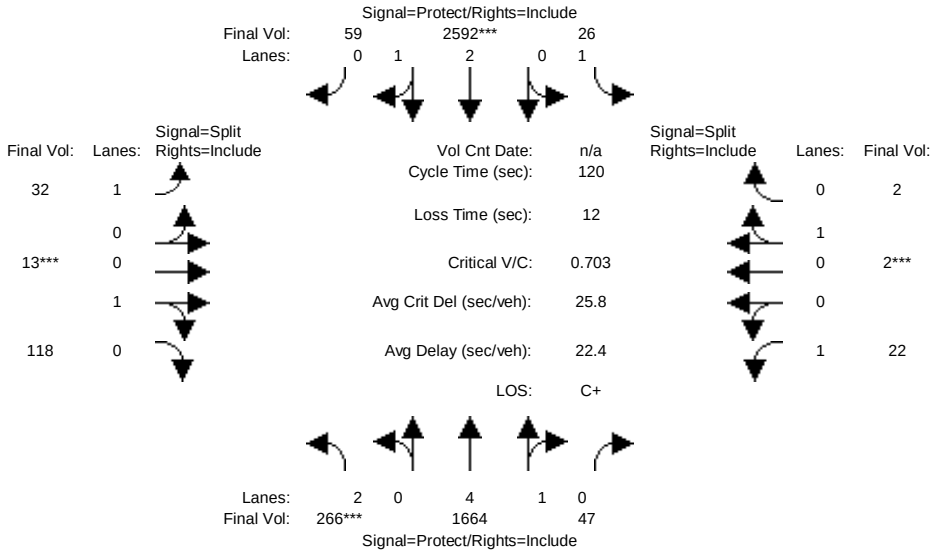
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #30: Wolfe Road/Pruneridge Avenue



Street Name:	Wolfe Road						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	266	1403	47	26	2489	59	32	13	118	22	2	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	266	1403	47	26	2489	59	32	13	118	22	2	2
Added Vol:	0	261	0	0	103	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	266	1664	47	26	2592	59	32	13	118	22	2	2
User Adj:	1.00	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:	266	1664	47	26	2592	59	32	13	118	22	2	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	266	1664	47	26	2592	59	32	13	118	22	2	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	266	1664	47	26	2592	59	32	13	118	22	2	2
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	2.00	4.86	0.14	1.00	2.93	0.07	1.00	0.10	0.90	1.00	0.50	0.50
Final Sat.:	3150	9141	258	1750	5475	125	1750	179	1621	1750	900	900
Capacity Analysis Module:												
Vol/Sat:	0.08	0.18	0.18	0.01	0.47	0.47	0.02	0.07	0.07	0.01	0.00	0.00
Crit Moves:	****				****			****			****	
Green Time:	13.1	65.7	65.7	21.0	73.6	73.6	11.3	11.3	11.3	10.0	10.0	10.0
Volume/Cap:	0.77	0.33	0.33	0.08	0.77	0.77	0.19	0.77	0.77	0.15	0.03	0.03
Uniform Del:	52.0	15.0	15.0	41.4	17.1	17.1	50.1	53.1	53.1	51.1	50.5	50.5
IncremntDel:	15.4	0.2	0.2	0.5	1.7	1.7	2.6	28.2	28.2	2.2	0.3	0.3
InitQueuDel:	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:	67.4	15.2	15.2	42.0	18.8	18.8	52.7	81.3	81.3	53.2	50.9	50.9
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:	67.4	15.2	15.2	42.0	18.8	18.8	52.7	81.3	81.3	53.2	50.9	50.9
LOS by Move:	E	B	B	D	B-	B-	D-	F	F	D-	D	D
HCM2kAvgQ:	190	172	172	22	628	628	33	171	171	23	4	4

Note: Queue reported is the distance per lane in feet.

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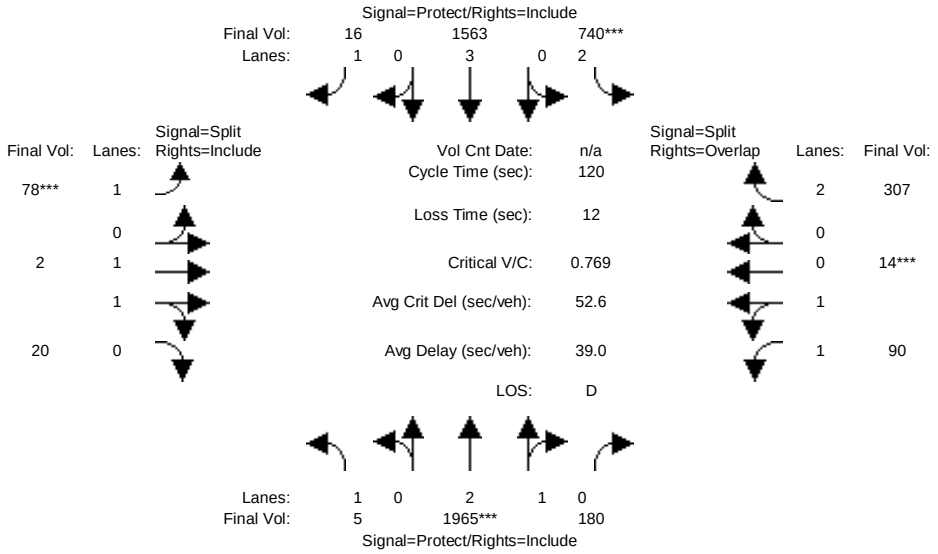
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #33: Wolfe Road/Vallco Parkway



Street Name:	Wolfe Road						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	38	10	10	14	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	5	1965	180	740	1563	16	78	2	20	90	14	307
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	1965	180	740	1563	16	78	2	20	90	14	307
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:	5	1965	180	740	1563	16	78	2	20	90	14	307
User Adj:	1.00	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:	5	1965	180	740	1563	16	78	2	20	90	14	307
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	1965	180	740	1563	16	78	2	20	90	14	307
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	5	1965	180	740	1563	16	78	2	20	90	14	307
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.83
Lanes:	1.00	2.74	0.26	2.00	3.00	1.00	1.00	1.00	1.00	1.73	0.27	2.00
Final Sat.:	1750	5129	470	3150	5700	1750	1750	1900	1750	3072	478	3150
Capacity Analysis Module:												
Vol/Sat:	0.00	0.38	0.38	0.23	0.27	0.01	0.04	0.00	0.01	0.03	0.03	0.10
Crit Moves:		****		****			****				****	
Green Time:	14.7	46.0	46.0	38.0	69.3	69.3	14.0	14.0	14.0	10.0	10.0	48.0
Volume/Cap:	0.02	1.00	1.00	0.74	0.48	0.02	0.38	0.01	0.10	0.35	0.35	0.24
Uniform Del:	46.3	37.0	37.0	36.6	14.8	10.8	49.0	46.9	47.4	51.9	51.9	23.9
IncremntDel:	0.2	19.3	19.3	5.0	0.5	0.0	5.3	0.0	0.9	3.3	3.3	0.5
InitQueuDel:	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:	46.5	56.3	56.3	41.6	15.3	10.9	54.3	46.9	48.2	55.2	55.2	24.4
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:	46.5	56.3	56.3	41.6	15.3	10.9	54.3	46.9	48.2	55.2	55.2	24.4
LOS by Move:	D	E+	E+	D	B	B+	D-	D	D	E+	E+	C
HCM2kAvgQ:	4	749	749	391	284	7	80	2	19	49	49	112

Note: Queue reported is the distance per lane in feet.

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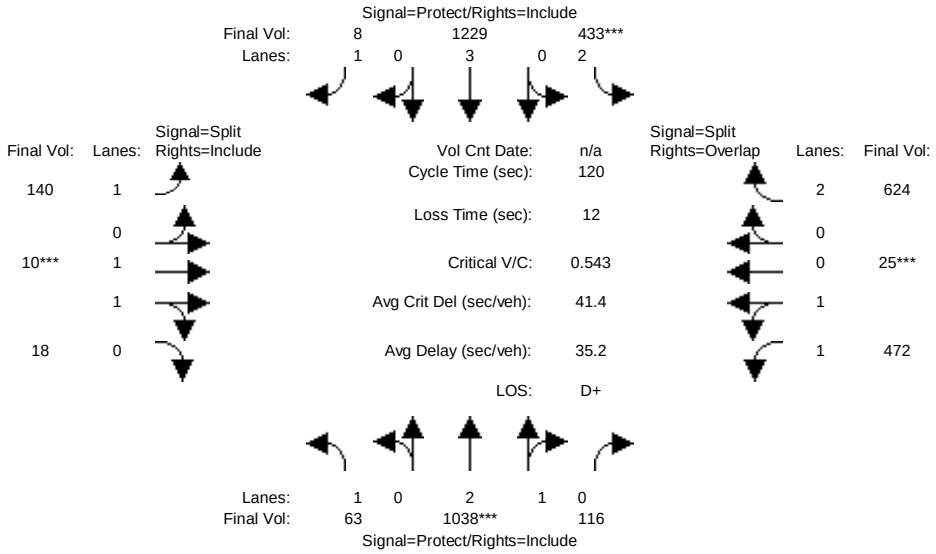
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #33: Wolfe Road/Vallco Parkway



Street Name:	Wolfe Road						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	63	1038	116	433	1229	8	140	10	18	472	25	624
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	63	1038	116	433	1229	8	140	10	18	472	25	624
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:	63	1038	116	433	1229	8	140	10	18	472	25	624
User Adj:	1.00	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	1038	116	433	1229	8	140	10	18	472	25	624
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	1038	116	433	1229	8	140	10	18	472	25	624
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1038	116	433	1229	8	140	10	18	472	25	624
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.83
Lanes:	1.00	2.69	0.31	2.00	3.00	1.00	1.00	1.00	1.00	1.90	0.10	2.00
Final Sat.:	1750	5036	563	3150	5700	1750	1750	1900	1750	3371	179	3150
Capacity Analysis Module:												
Vol/Sat:	0.04	0.21	0.21	0.14	0.22	0.00	0.08	0.01	0.01	0.14	0.14	0.20
Crit Moves:		****		****				****			****	
Green Time:	13.7	38.5	38.5	25.7	50.5	50.5	17.7	17.7	17.7	26.2	26.2	51.8
Volume/Cap:	0.32	0.64	0.64	0.64	0.51	0.01	0.54	0.04	0.07	0.64	0.64	0.46
Uniform Del:	48.9	34.9	34.9	43.0	25.7	20.2	47.4	43.9	44.1	42.7	42.7	24.1
IncremntDel:	4.1	1.8	1.8	4.7	0.8	0.0	8.0	0.1	0.3	4.1	4.1	1.1
InitQueuDel:	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:	53.0	36.6	36.6	47.6	26.4	20.2	55.4	43.9	44.4	46.7	46.7	25.3
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:	53.0	36.6	36.6	47.6	26.4	20.2	55.4	43.9	44.4	46.7	46.7	25.3
LOS by Move:	D-	D+	D+	D	C	C+	E+	D	D	D	D	C
HCM2kAvgQ:	57	312	312	227	280	5	145	8	16	228	228	244

Note: Queue reported is the distance per lane in feet.

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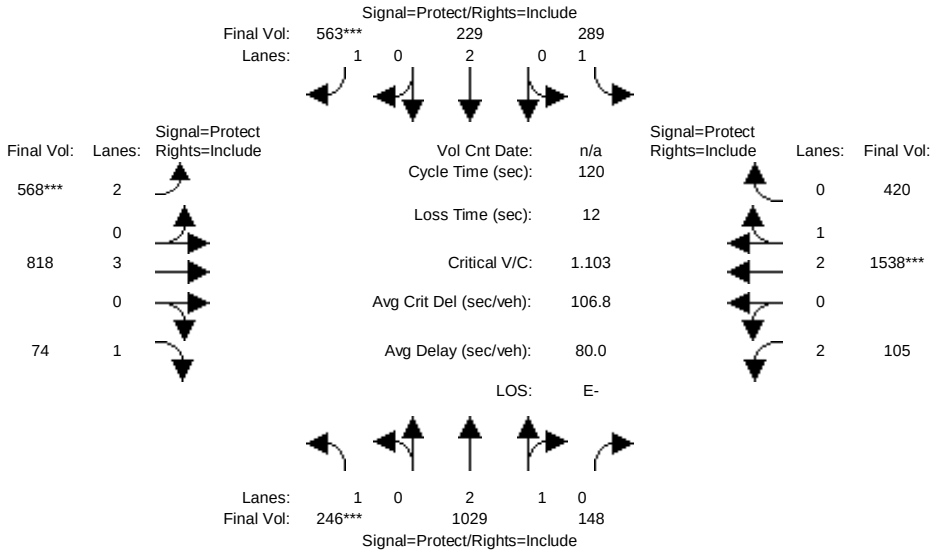
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #34: Wolfe Road/Stevens Creek Boulevard



Street Name:	Wolfe Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	246	1029	148	289	229	563	568	818	74	105	1538	420
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	246	1029	148	289	229	563	568	818	74	105	1538	420
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:	246	1029	148	289	229	563	568	818	74	105	1538	420
User Adj:	1.00	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:	246	1029	148	289	229	563	568	818	74	105	1538	420
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	246	1029	148	289	229	563	568	818	74	105	1538	420
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	246	1029	148	289	229	563	568	818	74	105	1538	420
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	1.00	0.92	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	1.00	2.61	0.39	1.00	2.00	1.00	2.00	3.00	1.00	2.00	2.33	0.67
Final Sat.:	1750	4895	704	1750	3800	1750	3150	5700	1750	3150	4397	1201
Capacity Analysis Module:												
Vol/Sat:	0.14	0.21	0.21	0.17	0.06	0.32	0.18	0.14	0.04	0.03	0.35	0.35
Crit Moves:	****					****	****				****	
Green Time:	15.3	28.2	28.2	22.1	35.0	35.0	19.6	41.0	41.0	16.7	38.1	38.1
Volume/Cap:	1.10	0.90	0.90	0.90	0.21	1.10	1.10	0.42	0.12	0.24	1.10	1.10
Uniform Del:	52.4	44.5	44.5	47.8	32.0	42.5	50.2	30.3	27.1	46.0	41.0	41.0
IncremntDel:	90.4	9.7	9.7	29.4	0.4	70.9	70.7	0.7	0.4	1.3	55.3	55.3
InitQueuDel:	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:	142.8	54.2	54.2	77.2	32.4	113.4	120.9	31.0	27.6	47.3	96.3	96.3
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:	142.8	54.2	54.2	77.2	32.4	113.4	120.9	31.0	27.6	47.3	96.3	96.3
LOS by Move:	F	D-	D-	E-	C-	F	F	C	C	D	F	F
HCM2kAvgQ:	411	441	441	331	77	814	469	192	49	55	898	898

Note: Queue reported is the distance per lane in feet.

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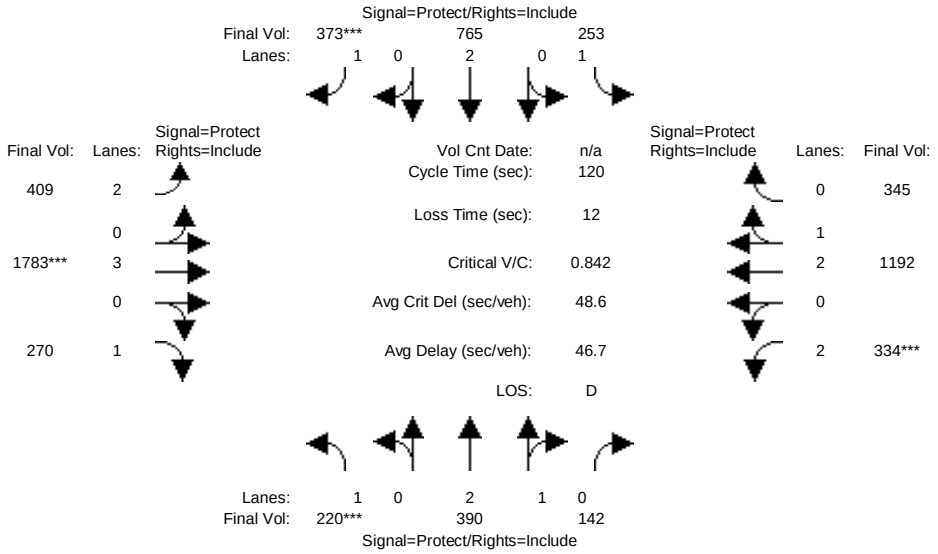
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #34: Wolfe Road/Stevens Creek Boulevard



Street Name:	Wolfe Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	220	390	142	253	765	373	409	1783	270	334	1192	345
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	220	390	142	253	765	373	409	1783	270	334	1192	345
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:	220	390	142	253	765	373	409	1783	270	334	1192	345
User Adj:	1.00	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:	220	390	142	253	765	373	409	1783	270	334	1192	345
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	220	390	142	253	765	373	409	1783	270	334	1192	345
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	220	390	142	253	765	373	409	1783	270	334	1192	345
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.95	0.92	1.00	0.92	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	1.00	2.17	0.83	1.00	2.00	1.00	2.00	3.00	1.00	2.00	2.30	0.70
Final Sat.:	1750	4103	1494	1750	3800	1750	3150	5700	1750	3150	4341	1257
Capacity Analysis Module:												
Vol/Sat:	0.13	0.10	0.10	0.14	0.20	0.21	0.13	0.31	0.15	0.11	0.27	0.27
Crit Moves:	****					****		****		****		
Green Time:	17.9	19.2	19.2	29.1	30.4	30.4	19.2	44.6	44.6	15.1	40.5	40.5
Volume/Cap:	0.84	0.60	0.60	0.60	0.80	0.84	0.81	0.84	0.42	0.84	0.81	0.81
Uniform Del:	49.7	46.8	46.8	40.2	41.9	42.5	48.7	34.5	28.0	51.3	36.3	36.3
IncremntDel:	26.7	2.9	2.9	6.0	6.8	17.4	13.4	4.3	2.0	19.1	4.0	4.0
InitQueuDel:	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:	76.3	49.7	49.7	46.2	48.7	59.9	62.1	38.8	30.0	70.3	40.2	40.2
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:	76.3	49.7	49.7	46.2	48.7	59.9	62.1	38.8	30.0	70.3	40.2	40.2
LOS by Move:	E-	D	D	D	D	E+	E	D+	C	E	D	D
HCM2kAvgQ:	277	174	174	227	356	393	220	500	189	244	485	485

Note: Queue reported is the distance per lane in feet.

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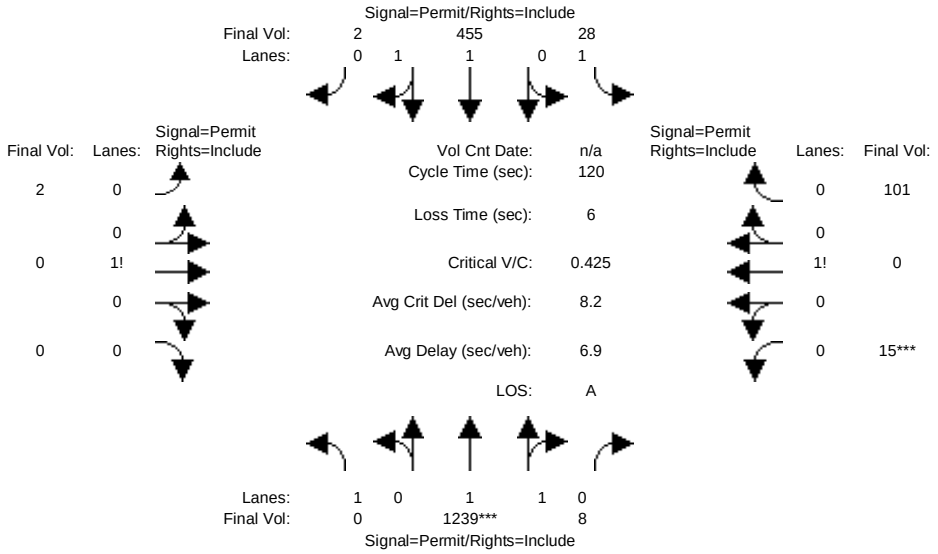
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #35: Miller Avenue/Calle De Barcelona



Street Name:	Miller Avenue						Calle De Barcelona					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1033	8	28	426	2	2	0	0	15	0	101
Growth Adj:	1.00	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	1033	8	28	426	2	2	0	0	15	0	101
Added Vol:	0	206	0	0	29	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1239	8	28	455	2	2	0	0	15	0	101
User Adj:	1.00	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	1239	8	28	455	2	2	0	0	15	0	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1239	8	28	455	2	2	0	0	15	0	101
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1239	8	28	455	2	2	0	0	15	0	101
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	1.99	0.01	1.00	1.99	0.01	1.00	0.00	0.00	0.13	0.00	0.87
Final Sat.:	1750	3676	24	1750	3684	16	1750	0	0	226	0	1524
Capacity Analysis Module:												
Vol/Sat:	0.00	0.34	0.34	0.02	0.12	0.12	0.00	0.00	0.00	0.07	0.00	0.07
Crit Moves:		****								****		
Green Time:	0.0	95.3	95.3	95.3	95.3	95.3	18.7	0.0	0.0	18.7	0.0	18.7
Volume/Cap:	0.00	0.42	0.42	0.02	0.16	0.16	0.01	0.00	0.00	0.42	0.00	0.42
Uniform Del:	0.0	3.8	3.8	2.6	2.9	2.9	42.8	0.0	0.0	45.8	0.0	45.8
IncremntDel:	0.0	0.5	0.5	0.0	0.1	0.1	0.0	0.0	0.0	4.8	0.0	4.8
InitQueuDel:	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	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	4.3	4.3	2.6	3.0	3.0	42.8	0.0	0.0	50.5	0.0	50.5
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	4.3	4.3	2.6	3.0	3.0	42.8	0.0	0.0	50.5	0.0	50.5
LOS by Move:	A	A	A	A	A	A	D	A	A	D	A	D
HCM2kAvgQ:	0	184	184	6	51	51	2	0	0	113	0	113

Note: Queue reported is the distance per lane in feet.

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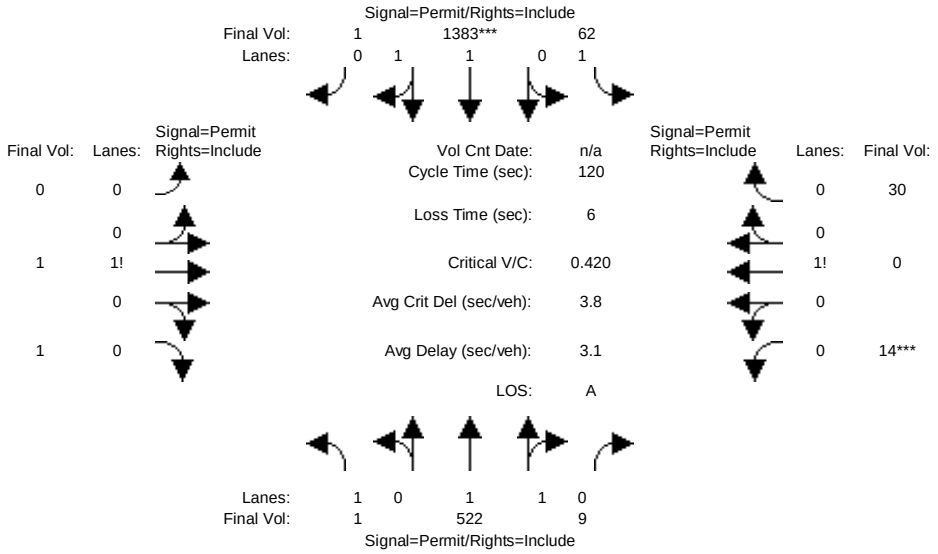
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #35: Miller Avenue/Calle De Barcelona



Street Name:	Miller Avenue						Calle De Barcelona					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	1	408	9	62	1274	1	0	1	1	14	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	408	9	62	1274	1	0	1	1	14	0	30
Added Vol:	0	114	0	0	109	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	522	9	62	1383	1	0	1	1	14	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	522	9	62	1383	1	0	1	1	14	0	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	522	9	62	1383	1	0	1	1	14	0	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:	1	522	9	62	1383	1	0	1	1	14	0	30
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	1.00	1.97	0.03	1.00	1.99	0.01	0.00	0.50	0.50	0.32	0.00	0.68
Final Sat.:	1750	3637	63	1750	3697	3	0	900	900	557	0	1193
Capacity Analysis Module:												
Vol/Sat:	0.00	0.14	0.14	0.04	0.37	0.37	0.00	0.00	0.00	0.03	0.00	0.03
Crit Moves:					****					****		
Green Time:	104.0	104	104.0	104.0	104	104.0	0.0	10.0	10.0	10.0	0.0	10.0
Volume/Cap:	0.00	0.17	0.17	0.04	0.43	0.43	0.00	0.01	0.01	0.30	0.00	0.30
Uniform Del:	1.1	1.2	1.2	1.1	1.7	1.7	0.0	50.5	50.5	51.7	0.0	51.7
IncremntDel:	0.0	0.1	0.1	0.1	0.4	0.4	0.0	0.2	0.2	5.2	0.0	5.2
InitQueuDel:	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	0.00	1.00	1.00	1.00	0.00	1.00
Delay/Veh:	1.1	1.4	1.4	1.2	2.1	2.1	0.0	50.6	50.6	57.0	0.0	57.0
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:	1.1	1.4	1.4	1.2	2.1	2.1	0.0	50.6	50.6	57.0	0.0	57.0
LOS by Move:	A	A	A	A	A	A	A	D	D	E+	A	E+
HCM2kAvgQ:	0	40	40	9	145	145	0	2	2	48	0	48

Note: Queue reported is the distance per lane in feet.

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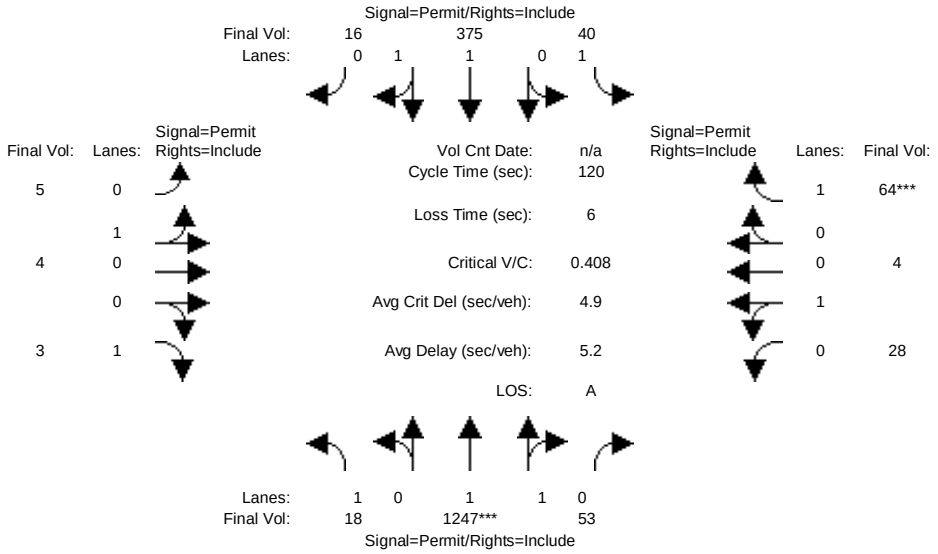
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #36: Miller Avenue/Phil Lane



Street Name:	Miller Avenue						Phil Lane					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	18	1041	53	40	346	16	5	4	3	28	4	64
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	1041	53	40	346	16	5	4	3	28	4	64
Added Vol:	0	206	0	0	29	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	1247	53	40	375	16	5	4	3	28	4	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:	18	1247	53	40	375	16	5	4	3	28	4	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	1247	53	40	375	16	5	4	3	28	4	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:	18	1247	53	40	375	16	5	4	3	28	4	64
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.92	0.08	1.00	1.92	0.08	0.56	0.44	1.00	0.87	0.13	1.00
Final Sat.:	1750	3549	151	1750	3548	151	1000	800	1750	1575	225	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.35	0.35	0.02	0.11	0.11	0.01	0.01	0.00	0.02	0.02	0.04
Crit Moves:		****										****
Green Time:	103.3	103	103.3	103.3	103	103.3	10.7	10.7	10.7	10.7	10.7	10.7
Volume/Cap:	0.01	0.41	0.41	0.03	0.12	0.12	0.06	0.06	0.02	0.20	0.20	0.41
Uniform Del:	1.2	1.8	1.8	1.2	1.3	1.3	50.0	50.0	49.8	50.6	50.6	51.6
IncremntDel:	0.0	0.4	0.4	0.0	0.1	0.1	0.7	0.7	0.2	2.7	2.7	7.7
InitQueuDel:	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:	1.2	2.2	2.2	1.2	1.4	1.4	50.6	50.6	50.0	53.4	53.4	59.3
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:	1.2	2.2	2.2	1.2	1.4	1.4	50.6	50.6	50.0	53.4	53.4	59.3
LOS by Move:	A	A	A	A	A	A	D	D	D	D-	D-	E+
HCM2kAvgQ:	3	137	137	6	30	30	9	9	3	32	32	71

Note: Queue reported is the distance per lane in feet.

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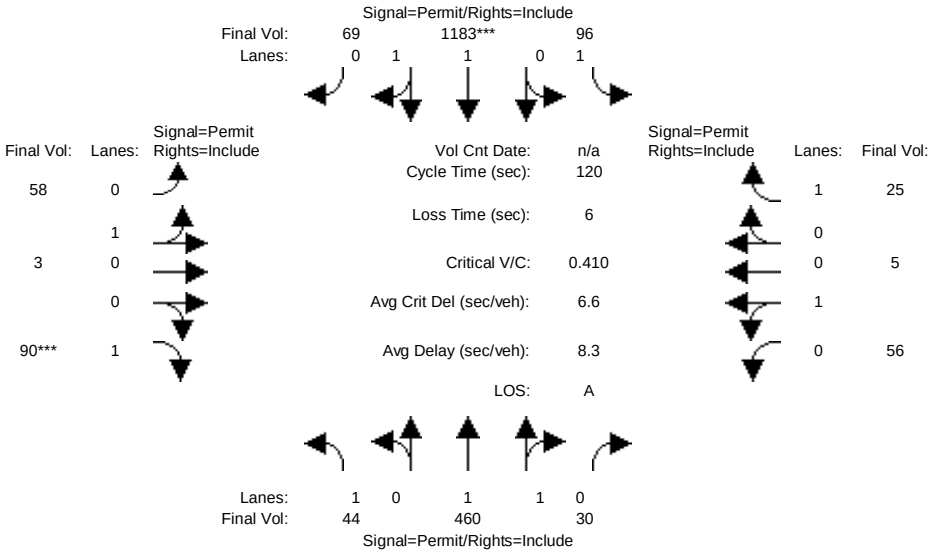
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #36: Miller Avenue/Phil Lane



Street Name:	Miller Avenue						Phil Lane					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	44	346	30	96	1074	69	58	3	90	56	5	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	44	346	30	96	1074	69	58	3	90	56	5	25
Added Vol:	0	114	0	0	109	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	460	30	96	1183	69	58	3	90	56	5	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:	44	460	30	96	1183	69	58	3	90	56	5	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	460	30	96	1183	69	58	3	90	56	5	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:	44	460	30	96	1183	69	58	3	90	56	5	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.87	0.13	1.00	1.89	0.11	0.95	0.05	1.00	0.92	0.08	1.00
Final Sat.:	1750	3473	227	1750	3496	204	1711	89	1750	1652	148	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.13	0.13	0.05	0.34	0.34	0.03	0.03	0.05	0.03	0.03	0.01
Crit Moves:					****				****			
Green Time:	99.0	99.0	99.0	99.0	99.0	99.0	15.0	15.0	15.0	15.0	15.0	15.0
Volume/Cap:	0.03	0.16	0.16	0.07	0.41	0.41	0.27	0.27	0.41	0.27	0.27	0.11
Uniform Del:	1.9	2.1	2.1	2.0	2.8	2.8	47.5	47.5	48.4	47.5	47.5	46.6
IncremntDel:	0.0	0.1	0.1	0.1	0.4	0.4	2.9	2.9	5.6	2.9	2.9	1.1
InitQueuDel:	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:	1.9	2.2	2.2	2.0	3.2	3.2	50.4	50.4	54.0	50.4	50.4	47.6
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:	1.9	2.2	2.2	2.0	3.2	3.2	50.4	50.4	54.0	50.4	50.4	47.6
LOS by Move:	A	A	A	A	A	A	D	D	D-	D	D	D
HCM2kAvgQ:	8	47	47	18	159	159	58	58	92	58	58	23

Note: Queue reported is the distance per lane in feet.

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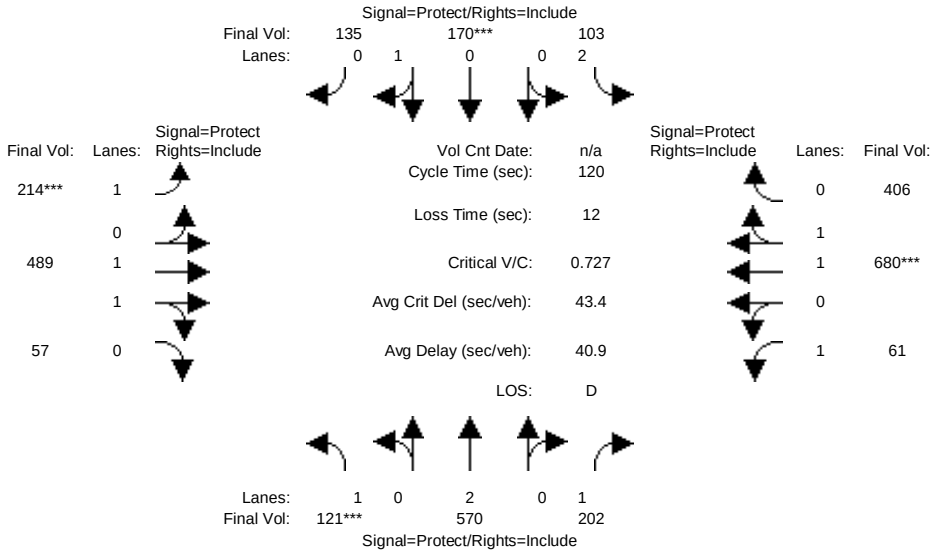
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #37: Miller Avenue/Bollinger Road



Street Name:	Miller Avenue						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	121	543	202	91	162	125	181	489	57	61	680	260
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	121	543	202	91	162	125	181	489	57	61	680	260
Added Vol:	0	27	0	12	8	10	33	0	0	0	0	146
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	121	570	202	103	170	135	214	489	57	61	680	406
User Adj:	1.00	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:	121	570	202	103	170	135	214	489	57	61	680	406
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	121	570	202	103	170	135	214	489	57	61	680	406
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	121	570	202	103	170	135	214	489	57	61	680	406
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.95	0.95	0.92	0.98	0.95	0.92	0.99	0.95
Lanes:	1.00	2.00	1.00	2.00	0.56	0.44	1.00	1.79	0.21	1.00	1.23	0.77
Final Sat.:	1750	3800	1750	3150	1003	797	1750	3313	386	1750	2316	1383
Capacity Analysis Module:												
Vol/Sat:	0.07	0.15	0.12	0.03	0.17	0.17	0.12	0.15	0.15	0.03	0.29	0.29
Crit Moves:	****				****		****				****	
Green Time:	11.4	28.3	28.3	11.0	28.0	28.0	20.2	49.2	49.2	19.4	48.5	48.5
Volume/Cap:	0.73	0.64	0.49	0.36	0.73	0.73	0.73	0.36	0.36	0.22	0.73	0.73
Uniform Del:	52.8	41.2	39.6	51.2	42.5	42.5	47.3	24.5	24.5	43.7	30.2	30.2
IncremntDel:	24.1	3.4	4.1	3.4	10.5	10.5	14.6	0.7	0.7	1.7	3.1	3.1
InitQueuDel:	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:	76.9	44.6	43.7	54.6	53.0	53.0	61.9	25.2	25.2	45.4	33.3	33.3
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:	76.9	44.6	43.7	54.6	53.0	53.0	61.9	25.2	25.2	45.4	33.3	33.3
LOS by Move:	E-	D	D	D-	D-	D-	E	C	C	D	C-	C-
HCM2kAvgQ:	157	254	181	62	306	306	239	176	176	55	453	453

Note: Queue reported is the distance per lane in feet.

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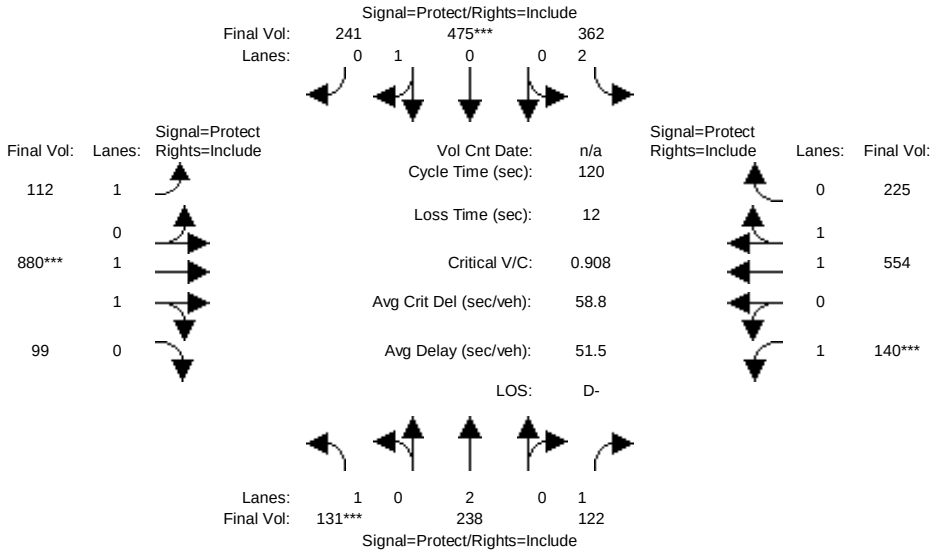
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #37: Miller Avenue/Bollinger Road



Street Name:	Miller Avenue						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	131	223	122	318	446	205	94	880	99	140	554	144
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	131	223	122	318	446	205	94	880	99	140	554	144
Added Vol:	0	15	0	44	29	36	18	0	0	0	0	81
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	131	238	122	362	475	241	112	880	99	140	554	225
User Adj:	1.00	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	238	122	362	475	241	112	880	99	140	554	225
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	131	238	122	362	475	241	112	880	99	140	554	225
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	238	122	362	475	241	112	880	99	140	554	225
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	2.00	1.00	2.00	0.66	0.34	1.00	1.79	0.21	1.00	1.41	0.59
Final Sat.:	1750	3800	1750	3150	1194	606	1750	3326	374	1750	2631	1068
Capacity Analysis Module:												
Vol/Sat:	0.07	0.06	0.07	0.11	0.40	0.40	0.06	0.26	0.26	0.08	0.21	0.21
Crit Moves:	****				****			****			****	
Green Time:	9.9	26.3	26.3	36.2	52.6	52.6	10.6	35.0	35.0	10.6	34.9	34.9
Volume/Cap:	0.91	0.29	0.32	0.38	0.91	0.91	0.72	0.91	0.91	0.91	0.72	0.72
Uniform Del:	54.6	39.1	39.4	33.1	31.5	31.5	53.3	41.0	41.0	54.2	38.2	38.2
IncremntDel:	53.7	0.9	2.2	1.2	16.2	16.2	25.3	12.6	12.6	51.4	4.2	4.2
InitQueuDel:	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:	108.3	39.9	41.5	34.2	47.7	47.7	78.6	53.6	53.6	105.6	42.4	42.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	108.3	39.9	41.5	34.2	47.7	47.7	78.6	53.6	53.6	105.6	42.4	42.4
LOS by Move:	F	D	D	C-	D	D	E-	D-	D-	F	D	D
HCM2kAvgQ:	203	93	104	159	739	739	148	538	538	213	358	358

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
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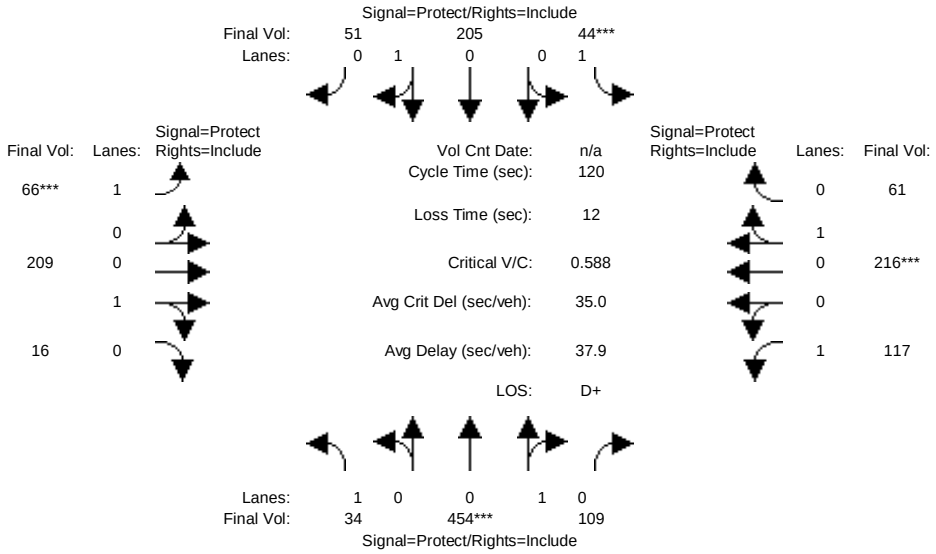
Intersection #38: Miller Avenue/Rainbow Drive



Street Name:	Miller Avenue						Rainbow Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	34	427	109	44	197	51	66	209	16	117	216	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:	34	427	109	44	197	51	66	209	16	117	216	61
Added Vol:	0	27	0	0	8	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	454	109	44	205	51	66	209	16	117	216	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:	34	454	109	44	205	51	66	209	16	117	216	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	454	109	44	205	51	66	209	16	117	216	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:	34	454	109	44	205	51	66	209	16	117	216	61
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	0.81	0.19	1.00	0.80	0.20	1.00	0.93	0.07	1.00	0.78	0.22
Final Sat.:	1750	1452	348	1750	1441	359	1750	1672	128	1750	1404	396
Capacity Analysis Module:												
Vol/Sat:	0.02	0.31	0.31	0.03	0.14	0.14	0.04	0.13	0.13	0.07	0.15	0.15
Crit Moves:		****		****			****				****	
Green Time:	20.3	62.6	62.6	7.0	49.4	49.4	7.6	25.0	25.0	13.4	30.8	30.8
Volume/Cap:	0.12	0.60	0.60	0.43	0.35	0.35	0.60	0.60	0.60	0.60	0.60	0.60
Uniform Del:	42.3	20.0	20.0	54.6	24.2	24.2	54.8	43.0	43.0	50.8	39.2	39.2
IncremntDel:	0.8	2.8	2.8	12.7	1.3	1.3	21.8	6.9	6.9	12.9	5.6	5.6
InitQueuDel:	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:	43.1	22.8	22.8	67.3	25.5	25.5	76.6	49.9	49.9	63.7	44.8	44.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.1	22.8	22.8	67.3	25.5	25.5	76.6	49.9	49.9	63.7	44.8	44.8
LOS by Move:	D	C+	C+	E	C	C	E-	D	D	E	D	D
HCM2kAvgQ:	29	381	381	56	168	168	89	214	214	134	249	249

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
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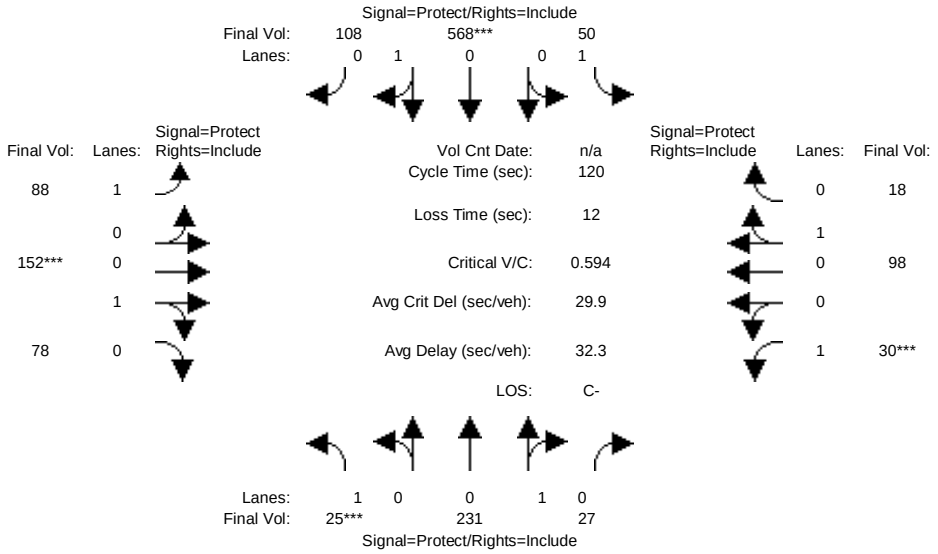
Intersection #38: Miller Avenue/Rainbow Drive



Street Name:	Miller Avenue						Rainbow Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	25	216	27	50	539	108	88	152	78	30	98	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	216	27	50	539	108	88	152	78	30	98	18
Added Vol:	0	15	0	0	29	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	25	231	27	50	568	108	88	152	78	30	98	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:	25	231	27	50	568	108	88	152	78	30	98	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	231	27	50	568	108	88	152	78	30	98	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:	25	231	27	50	568	108	88	152	78	30	98	18
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	0.90	0.10	1.00	0.84	0.16	1.00	0.66	0.34	1.00	0.84	0.16
Final Sat.:	1750	1612	188	1750	1512	288	1750	1190	610	1750	1521	279
Capacity Analysis Module:												
Vol/Sat:	0.01	0.14	0.14	0.03	0.38	0.38	0.05	0.13	0.13	0.02	0.06	0.06
Crit Moves:	****				****			****			****	
Green Time:	7.0	54.8	54.8	22.3	70.1	70.1	12.7	23.9	23.9	7.0	18.2	18.2
Volume/Cap:	0.24	0.31	0.31	0.15	0.64	0.64	0.47	0.64	0.64	0.29	0.43	0.43
Uniform Del:	54.0	20.7	20.7	40.9	16.6	16.6	50.5	44.2	44.2	54.1	46.2	46.2
IncremntDel:	5.6	1.0	1.0	1.0	3.0	3.0	8.5	8.6	8.6	7.2	4.8	4.8
InitQueuDel:	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:	59.6	21.7	21.7	41.9	19.6	19.6	59.0	52.7	52.7	61.3	51.0	51.0
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:	59.6	21.7	21.7	41.9	19.6	19.6	59.0	52.7	52.7	61.3	51.0	51.0
LOS by Move:	E+	C+	C+	D	B-	B-	E+	D-	D-	E	D-	D-
HCM2kAvgQ:	29	155	155	42	439	439	96	227	227	36	110	110

Note: Queue reported is the distance per lane in feet.

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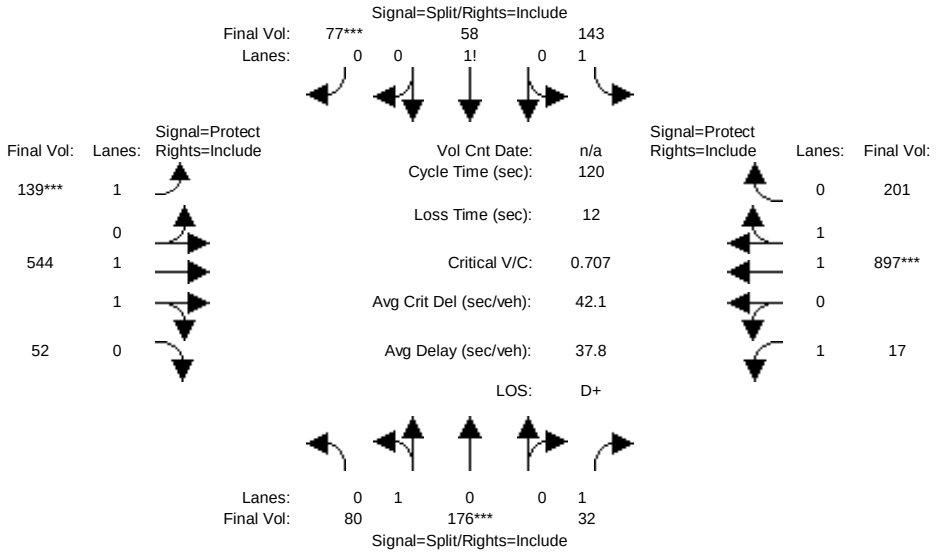
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #39: Miller Avenue/Prospect Road



Street Name:	Miller Avenue						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	80	168	32	140	56	74	130	544	52	17	897	192
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	80	168	32	140	56	74	130	544	52	17	897	192
Added Vol:	0	8	0	3	2	3	9	0	0	0	0	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	80	176	32	143	58	77	139	544	52	17	897	201
User Adj:	1.00	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:	80	176	32	143	58	77	139	544	52	17	897	201
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	176	32	143	58	77	139	544	52	17	897	201
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	80	176	32	143	58	77	139	544	52	17	897	201
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	0.31	0.69	1.00	1.35	0.28	0.37	1.00	1.82	0.18	1.00	1.62	0.38
Final Sat.:	562	1237	1750	2356	492	653	1750	3377	323	1750	3022	677
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.02	0.06	0.12	0.12	0.08	0.16	0.16	0.01	0.30	0.30
Crit Moves:		****				****	****				****	
Green Time:	24.1	24.1	24.1	20.0	20.0	20.0	13.5	46.9	46.9	17.0	50.4	50.4
Volume/Cap:	0.71	0.71	0.09	0.36	0.71	0.71	0.71	0.41	0.41	0.07	0.71	0.71
Uniform Del:	44.6	44.6	39.0	44.3	47.2	47.2	51.4	26.6	26.6	44.7	28.7	28.7
IncremntDel:	11.1	11.1	0.5	1.3	10.3	10.3	19.3	0.9	0.9	0.5	2.7	2.7
InitQueuDel:	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:	55.7	55.7	39.5	45.7	57.5	57.5	70.6	27.4	27.4	45.2	31.5	31.5
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:	55.7	55.7	39.5	45.7	57.5	57.5	70.6	27.4	27.4	45.2	31.5	31.5
LOS by Move:	E+	E+	D	D	E+	E+	E	C	C	D	C	C
HCM2kAvgQ:	262	262	26	99	228	228	170	203	203	15	444	444

Note: Queue reported is the distance per lane in feet.

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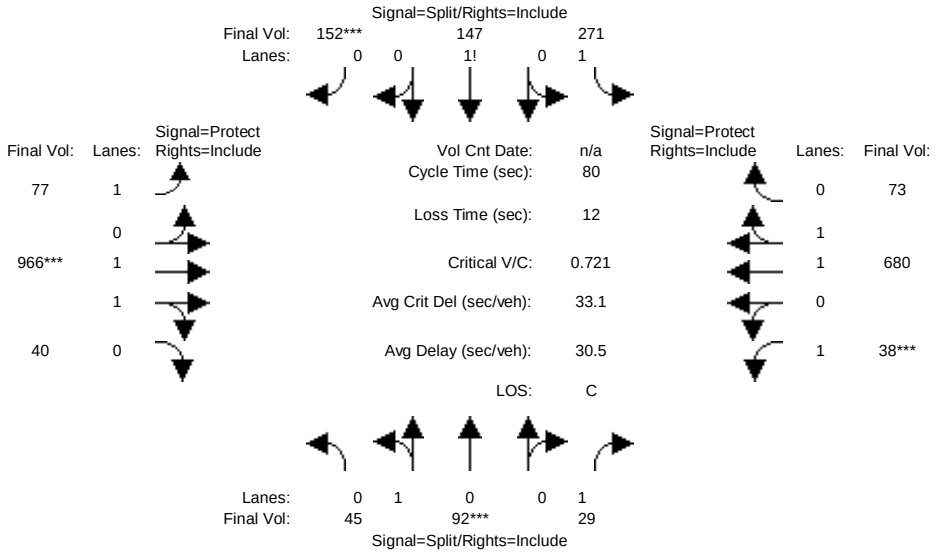
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #39: Miller Avenue/Prospect Road



Street Name:	Miller Avenue						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	45	88	29	261	138	142	72	966	40	38	680	68
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	88	29	261	138	142	72	966	40	38	680	68
Added Vol:	0	4	0	10	9	10	5	0	0	0	0	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	92	29	271	147	152	77	966	40	38	680	73
User Adj:	1.00	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:	45	92	29	271	147	152	77	966	40	38	680	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	92	29	271	147	152	77	966	40	38	680	73
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	45	92	29	271	147	152	77	966	40	38	680	73
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.95	0.95	0.92	0.97	0.95	0.92	0.98	0.95
Lanes:	0.33	0.67	1.00	1.32	0.33	0.35	1.00	1.92	0.08	1.00	1.80	0.20
Final Sat.:	591	1209	1750	2306	604	624	1750	3553	147	1750	3341	359
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.02	0.12	0.24	0.24	0.04	0.27	0.27	0.02	0.20	0.20
Crit Moves:		****				****		****		****		
Green Time:	10.0	10.0	10.0	24.1	24.1	24.1	10.2	26.9	26.9	7.0	23.7	23.7
Volume/Cap:	0.61	0.61	0.13	0.39	0.81	0.81	0.35	0.81	0.81	0.25	0.69	0.69
Uniform Del:	33.1	33.1	31.1	22.1	25.8	25.8	31.9	24.2	24.2	34.0	24.9	24.9
IncremntDel:	11.7	11.7	1.3	0.8	9.7	9.7	4.2	5.7	5.7	3.8	3.5	3.5
InitQueuDel:	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:	44.8	44.8	32.4	22.9	35.5	35.5	36.1	29.9	29.9	37.9	28.4	28.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.8	44.8	32.4	22.9	35.5	35.5	36.1	29.9	29.9	37.9	28.4	28.4
LOS by Move:	D	D	C-	C+	D+	D+	D+	C	C	D+	C	C
HCM2kAvgQ:	111	111	19	114	322	322	55	348	348	29	240	240

Note: Queue reported is the distance per lane in feet.

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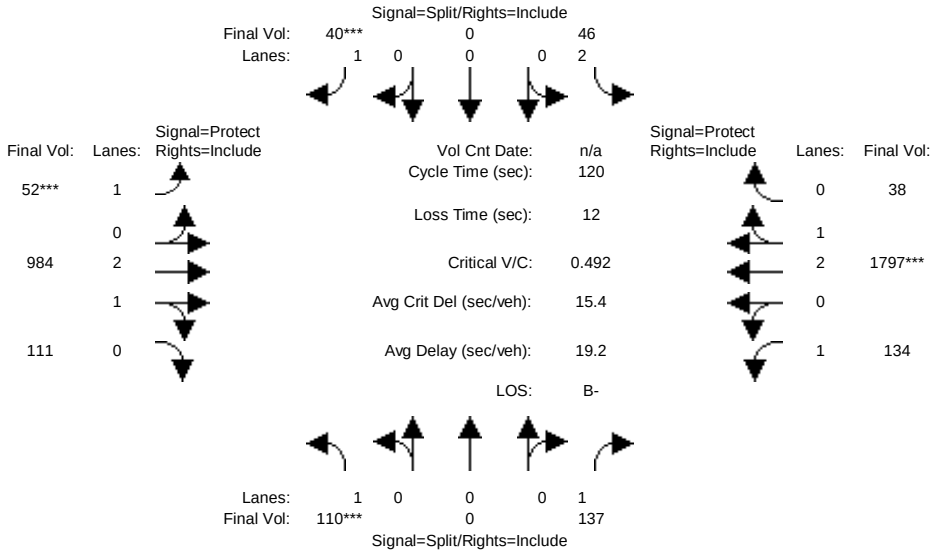
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #40: Stevens Creek Boulevard/Finch Avenue



Street Name:	Finch Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	0	10	0	0	0	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	110	0	137	46	0	40	52	879	111	134	1491	38
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	110	0	137	46	0	40	52	879	111	134	1491	38
Added Vol:	0	0	0	0	0	0	0	105	0	0	306	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	110	0	137	46	0	40	52	984	111	134	1797	38
User Adj:	1.00	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:	110	0	137	46	0	40	52	984	111	134	1797	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	110	0	137	46	0	40	52	984	111	134	1797	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	110	0	137	46	0	40	52	984	111	134	1797	38
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.99	0.95	0.92	0.98	0.95
Lanes:	1.00	0.00	1.00	2.00	0.00	1.00	1.00	2.68	0.32	1.00	2.94	0.06
Final Sat.:	1750	0	1750	3150	0	1750	1750	5032	568	1750	5484	116
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.08	0.01	0.00	0.02	0.03	0.20	0.20	0.08	0.33	0.33
Crit Moves:	****					****	****				****	
Green Time:	19.1	0.0	19.1	5.6	0.0	5.6	7.2	62.6	62.6	24.5	79.9	79.9
Volume/Cap:	0.40	0.00	0.49	0.31	0.00	0.49	0.49	0.37	0.37	0.37	0.49	0.49
Uniform Del:	45.3	0.0	46.0	55.4	0.0	55.8	54.6	17.1	17.1	41.1	10.0	10.0
IncremntDel:	4.2	0.0	6.1	5.5	0.0	19.8	15.5	0.4	0.4	3.0	0.5	0.5
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	49.4	0.0	52.2	60.9	0.0	75.6	70.1	17.4	17.4	44.1	10.4	10.4
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:	49.4	0.0	52.2	60.9	0.0	75.6	70.1	17.4	17.4	44.1	10.4	10.4
LOS by Move:	D	A	D-	E	A	E-	E	B	B	D	B+	B+
HCM2kAvgQ:	105	0	136	33	0	56	67	199	199	119	282	282

Note: Queue reported is the distance per lane in feet.

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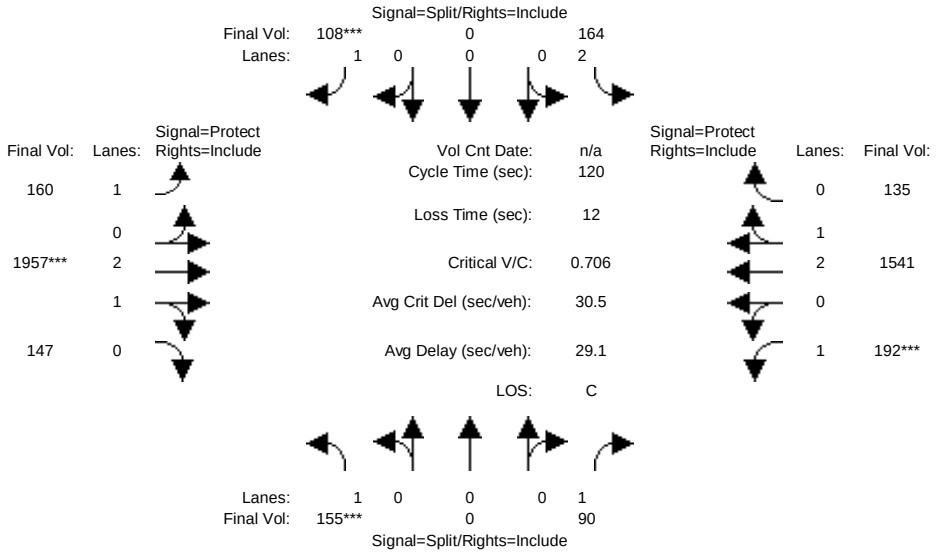
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #40: Stevens Creek Boulevard/Finch Avenue



Street Name:	Finch Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	0	10	0	0	0	7	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	155	0	90	164	0	108	160	1565	147	192	1372	135
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	155	0	90	164	0	108	160	1565	147	192	1372	135
Added Vol:	0	0	0	0	0	0	0	392	0	0	169	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	155	0	90	164	0	108	160	1957	147	192	1541	135
User Adj:	1.00	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:	155	0	90	164	0	108	160	1957	147	192	1541	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	155	0	90	164	0	108	160	1957	147	192	1541	135
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	155	0	90	164	0	108	160	1957	147	192	1541	135
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.99	0.95	0.92	0.99	0.95
Lanes:	1.00	0.00	1.00	2.00	0.00	1.00	1.00	2.78	0.22	1.00	2.75	0.25
Final Sat.:	1750	0	1750	3150	0	1750	1750	5208	391	1750	5148	451
Capacity Analysis Module:												
Vol/Sat:	0.09	0.00	0.05	0.05	0.00	0.06	0.09	0.38	0.38	0.11	0.30	0.30
Crit Moves:	****					****		****			****	
Green Time:	15.0	0.0	15.0	10.5	0.0	10.5	19.3	63.8	63.8	18.6	63.2	63.2
Volume/Cap:	0.71	0.00	0.41	0.60	0.00	0.71	0.57	0.71	0.71	0.71	0.57	0.57
Uniform Del:	50.4	0.0	48.4	52.7	0.0	53.3	46.5	21.1	21.1	48.1	19.2	19.2
IncremntDel:	17.4	0.0	5.6	9.2	0.0	24.0	8.1	1.4	1.4	14.4	0.8	0.8
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	67.8	0.0	54.0	61.9	0.0	77.2	54.6	22.5	22.5	62.5	20.0	20.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	67.8	0.0	54.0	61.9	0.0	77.2	54.6	22.5	22.5	62.5	20.0	20.0
LOS by Move:	E	A	D-	E	A	E-	D-	C+	C+	E	C+	C+
HCM2kAvgQ:	184	0	92	111	0	141	164	503	503	215	352	352

Note: Queue reported is the distance per lane in feet.

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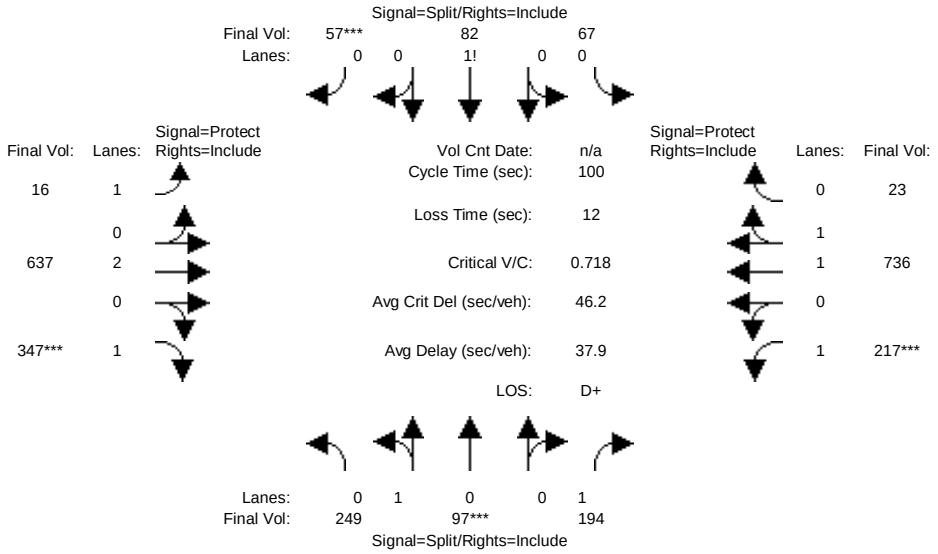
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #41: Tantau Avenue/Homestead Road



Street Name:	Tantau Avenu						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	249	97	186	67	82	57	16	618	347	190	723	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	249	97	186	67	82	57	16	618	347	190	723	23
Added Vol:	0	0	8	0	0	0	0	19	0	27	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	249	97	194	67	82	57	16	637	347	217	736	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:	249	97	194	67	82	57	16	637	347	217	736	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	249	97	194	67	82	57	16	637	347	217	736	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:	249	97	194	67	82	57	16	637	347	217	736	23
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	0.97	0.95
Lanes:	0.72	0.28	1.00	0.32	0.40	0.28	1.00	2.00	1.00	1.00	1.94	0.06
Final Sat.:	1295	505	1750	569	697	484	1750	3800	1750	1750	3588	112
Capacity Analysis Module:												
Vol/Sat:	0.19	0.19	0.11	0.12	0.12	0.12	0.01	0.17	0.20	0.12	0.21	0.21
Crit Moves:		****				****			****	****		
Green Time:	26.8	26.8	26.8	16.4	16.4	16.4	11.4	27.6	27.6	17.3	33.4	33.4
Volume/Cap:	0.72	0.72	0.41	0.72	0.72	0.72	0.08	0.61	0.72	0.72	0.61	0.61
Uniform Del:	33.2	33.2	30.2	39.6	39.6	39.6	39.6	31.5	32.7	39.1	27.9	27.9
IncremntDel:	8.9	8.9	2.7	14.4	14.4	14.4	0.8	2.6	8.9	13.7	2.3	2.3
InitQueuDel:	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:	42.1	42.1	32.9	54.0	54.0	54.0	40.4	34.1	41.6	52.8	30.1	30.1
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:	42.1	42.1	32.9	54.0	54.0	54.0	40.4	34.1	41.6	52.8	30.1	30.1
LOS by Move:	D	D	C-	D-	D-	D-	D	C-	D	D-	C	C
HCM2kAvgQ:	287	287	138	201	201	201	13	229	293	208	264	264

Note: Queue reported is the distance per lane in feet.

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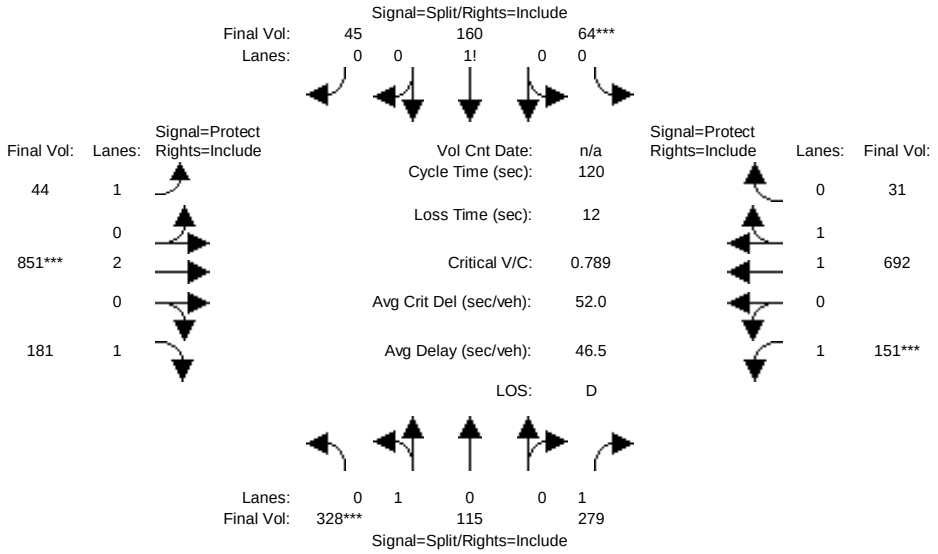
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #41: Tantau Avenue/Homestead Road



Street Name:	Tantau Avenu						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	328	115	250	64	160	45	44	778	181	136	685	31
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	328	115	250	64	160	45	44	778	181	136	685	31
Added Vol:	0	0	29	0	0	0	0	73	0	15	7	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	328	115	279	64	160	45	44	851	181	151	692	31
User Adj:	1.00	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:	328	115	279	64	160	45	44	851	181	151	692	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	328	115	279	64	160	45	44	851	181	151	692	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	328	115	279	64	160	45	44	851	181	151	692	31
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	0.97	0.95
Lanes:	0.74	0.26	1.00	0.24	0.59	0.17	1.00	2.00	1.00	1.00	1.91	0.09
Final Sat.:	1333	467	1750	416	1041	293	1750	3800	1750	1750	3541	159
Capacity Analysis Module:												
Vol/Sat:	0.25	0.25	0.16	0.15	0.15	0.15	0.03	0.22	0.10	0.09	0.20	0.20
Crit Moves:	****			****				****		****		
Green Time:	37.4	37.4	37.4	23.4	23.4	23.4	10.8	34.1	34.1	13.1	36.3	36.3
Volume/Cap:	0.79	0.79	0.51	0.79	0.79	0.79	0.28	0.79	0.36	0.79	0.65	0.65
Uniform Del:	37.7	37.7	33.8	46.0	46.0	46.0	50.9	39.7	34.3	52.1	36.2	36.2
IncremntDel:	10.8	10.8	3.4	16.8	16.8	16.8	4.3	5.9	2.1	27.3	2.9	2.9
InitQueuDel:	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:	48.4	48.4	37.2	62.7	62.7	62.7	55.2	45.5	36.4	79.4	39.1	39.1
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:	48.4	48.4	37.2	62.7	62.7	62.7	55.2	45.5	36.4	79.4	39.1	39.1
LOS by Move:	D	D	D+	E	E	E	E+	D	D+	E-	D	D
HCM2kAvgQ:	434	434	232	304	304	304	47	404	145	197	311	311

Note: Queue reported is the distance per lane in feet.

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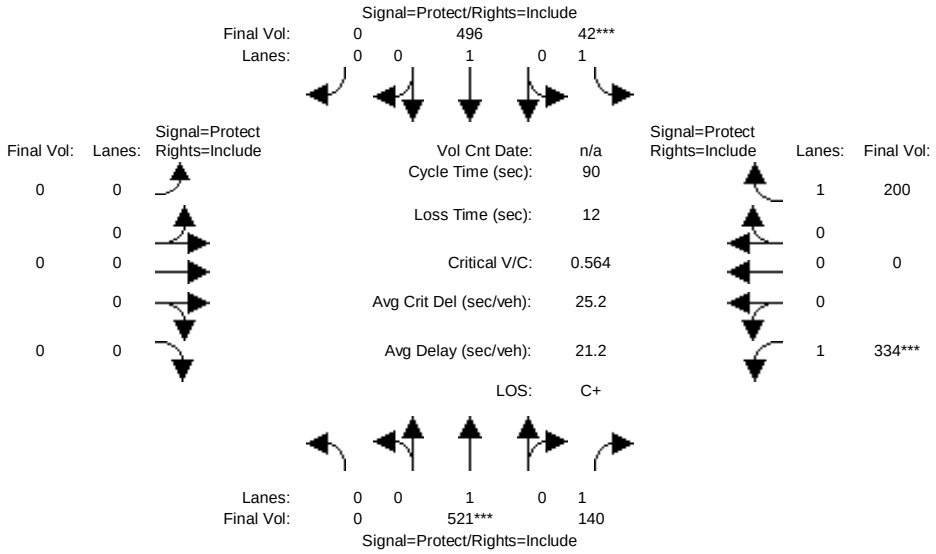
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #42: Tantau Avenue/Pruneridge Avenue



Street Name:	Tantau Avenu						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	513	124	42	469	0	0	0	0	281	0	200
Growth Adj:	1.00	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	513	124	42	469	0	0	0	0	281	0	200
Added Vol:	0	8	16	0	27	0	0	0	0	53	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	521	140	42	496	0	0	0	0	334	0	200
User Adj:	1.00	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	521	140	42	496	0	0	0	0	334	0	200
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	521	140	42	496	0	0	0	0	334	0	200
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	521	140	42	496	0	0	0	0	334	0	200
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
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	1750	1750	1900	0	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.08	0.02	0.26	0.00	0.00	0.00	0.00	0.19	0.00	0.11
Crit Moves:		****		****						****		
Green Time:	0.0	41.9	41.9	7.0	48.9	0.0	0.0	0.0	0.0	29.1	0.0	29.1
Volume/Cap:	0.00	0.59	0.17	0.31	0.48	0.00	0.00	0.00	0.00	0.59	0.00	0.35
Uniform Del:	0.0	17.7	14.0	39.2	12.7	0.0	0.0	0.0	0.0	25.4	0.0	23.2
IncremntDel:	0.0	2.9	0.5	5.8	1.6	0.0	0.0	0.0	0.0	4.5	0.0	1.7
InitQueuDel:	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	20.6	14.5	45.0	14.3	0.0	0.0	0.0	0.0	29.9	0.0	25.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	20.6	14.5	45.0	14.3	0.0	0.0	0.0	0.0	29.9	0.0	25.0
LOS by Move:	A	C+	B	D	B	A	A	A	A	C	A	C
HCM2kAvgQ:	0	275	60	38	215	0	0	0	0	224	0	117

Note: Queue reported is the distance per lane in feet.

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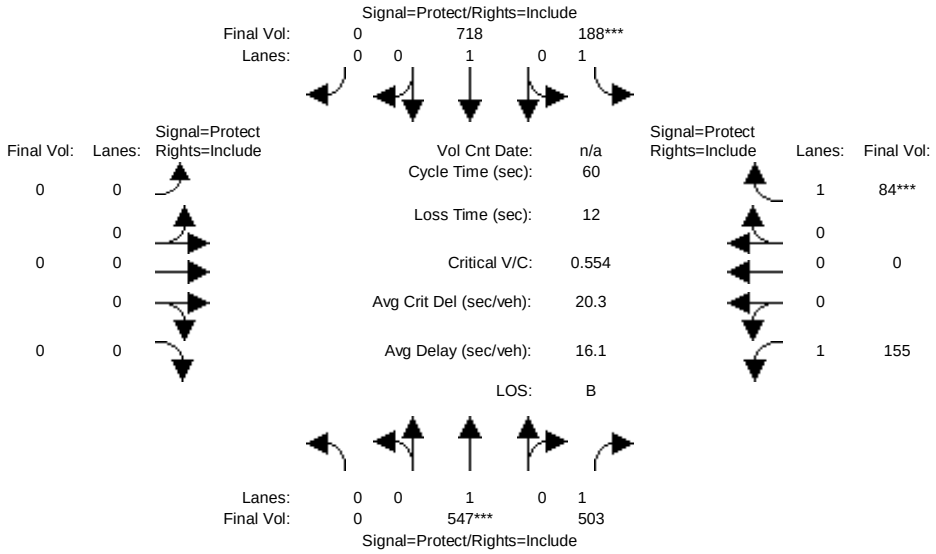
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #42: Tantau Avenue/Pruneridge Avenue



Street Name:	Tantau Avenu						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	518	445	188	703	0	0	0	0	126	0	84
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	518	445	188	703	0	0	0	0	126	0	84
Added Vol:	0	29	58	0	15	0	0	0	0	29	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	547	503	188	718	0	0	0	0	155	0	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:	0	547	503	188	718	0	0	0	0	155	0	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	547	503	188	718	0	0	0	0	155	0	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:	0	547	503	188	718	0	0	0	0	155	0	84
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
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	1750	1750	1900	0	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.29	0.29	0.11	0.38	0.00	0.00	0.00	0.00	0.09	0.00	0.05
Crit Moves:		****		****								****
Green Time:	0.0	27.7	27.7	10.3	38.0	0.0	0.0	0.0	0.0	10.0	0.0	10.0
Volume/Cap:	0.00	0.62	0.62	0.62	0.60	0.00	0.00	0.00	0.00	0.53	0.00	0.29
Uniform Del:	0.0	12.2	12.2	23.0	6.5	0.0	0.0	0.0	0.0	22.9	0.0	21.9
IncremntDel:	0.0	3.3	3.6	9.4	2.2	0.0	0.0	0.0	0.0	6.8	0.0	2.5
InitQueuDel:	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	15.6	15.8	32.4	8.7	0.0	0.0	0.0	0.0	29.6	0.0	24.4
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	15.6	15.8	32.4	8.7	0.0	0.0	0.0	0.0	29.6	0.0	24.4
LOS by Move:	A	B	B	C-	A	A	A	A	A	C	A	C
HCM2kAvgQ:	0	212	212	117	212	0	0	0	0	91	0	43

Note: Queue reported is the distance per lane in feet.

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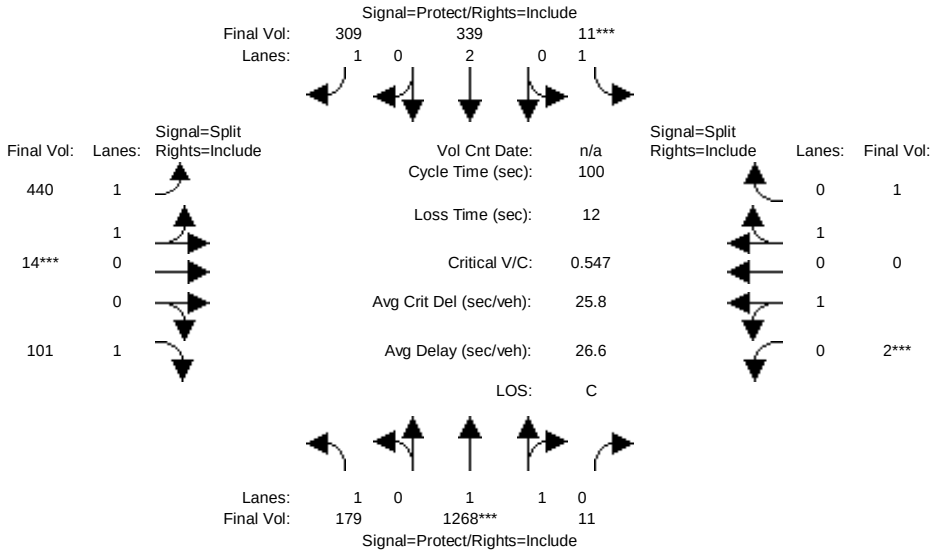
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #43: Tantau Avenue/Vallco Parkway



Street Name:	Tantau Avenu						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	179	1268	11	11	339	309	440	14	101	2	0	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	179	1268	11	11	339	309	440	14	101	2	0	1
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:	179	1268	11	11	339	309	440	14	101	2	0	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	179	1268	11	11	339	309	440	14	101	2	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	179	1268	11	11	339	309	440	14	101	2	0	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	179	1268	11	11	339	309	440	14	101	2	0	1
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	1.00	0.92	0.93	0.95	0.92	0.95	1.00	0.95
Lanes:	1.00	1.98	0.02	1.00	2.00	1.00	1.94	0.06	1.00	1.00	0.00	1.00
Final Sat.:	1750	3668	32	1750	3800	1750	3441	109	1750	1800	0	1800
Capacity Analysis Module:												
Vol/Sat:	0.10	0.35	0.35	0.01	0.09	0.18	0.13	0.13	0.06	0.00	0.00	0.00
Crit Moves:		****		****				****		****		
Green Time:	21.6	51.8	51.8	7.0	37.2	37.2	19.2	19.2	19.2	10.0	0.0	10.0
Volume/Cap:	0.47	0.67	0.67	0.09	0.24	0.47	0.67	0.67	0.30	0.01	0.00	0.01
Uniform Del:	34.3	17.7	17.7	43.5	21.6	23.9	37.5	37.5	34.7	40.5	0.0	40.5
IncremntDel:	4.2	1.9	1.9	1.4	0.4	2.5	5.1	5.1	2.3	0.1	0.0	0.0
InitQueuDel:	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	0.00	1.00
Delay/Veh:	38.5	19.6	19.6	45.0	22.0	26.4	42.6	42.6	37.0	40.6	0.0	40.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	38.5	19.6	19.6	45.0	22.0	26.4	42.6	42.6	37.0	40.6	0.0	40.5
LOS by Move:	D+	B-	B-	D	C+	C	D	D	D+	D	A	D
HCM2kAvgQ:	140	384	384	10	89	200	201	201	76	2	0	1

Note: Queue reported is the distance per lane in feet.

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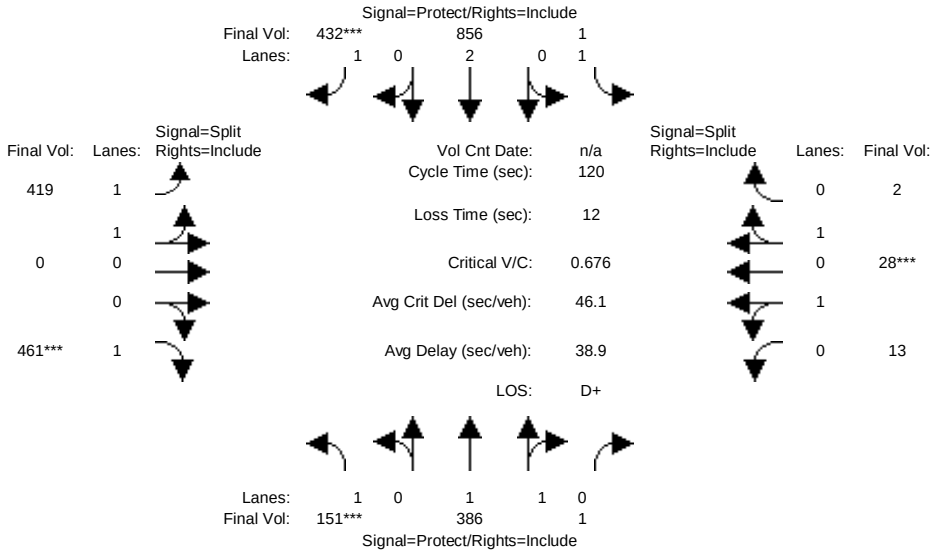
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #43: Tantau Avenue/Vallco Parkway



Street Name:	Tantau Avenu						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	151	386	1	1	856	432	419	0	461	13	28	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	151	386	1	1	856	432	419	0	461	13	28	2
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:	151	386	1	1	856	432	419	0	461	13	28	2
User Adj:	1.00	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:	151	386	1	1	856	432	419	0	461	13	28	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	151	386	1	1	856	432	419	0	461	13	28	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	151	386	1	1	856	432	419	0	461	13	28	2
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	1.00	0.92	0.93	1.00	0.92	0.95	0.95	0.95
Lanes:	1.00	1.99	0.01	1.00	2.00	1.00	2.00	0.00	1.00	0.60	1.31	0.09
Final Sat.:	1750	3690	10	1750	3800	1750	3550	0	1750	1088	2344	167
Capacity Analysis Module:												
Vol/Sat:	0.09	0.10	0.10	0.00	0.23	0.25	0.12	0.00	0.26	0.01	0.01	0.01
Crit Moves:	****					****			****		****	
Green Time:	14.2	35.1	35.1	19.6	40.6	40.6	43.3	0.0	43.3	10.0	10.0	10.0
Volume/Cap:	0.73	0.36	0.36	0.00	0.67	0.73	0.33	0.00	0.73	0.14	0.14	0.14
Uniform Del:	51.1	33.5	33.5	42.0	33.9	34.9	27.8	0.0	33.3	51.0	51.0	51.0
IncremntDel:	20.2	0.9	0.9	0.0	2.8	7.8	0.7	0.0	7.3	1.0	1.0	1.0
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00
Delay/Veh:	71.3	34.4	34.4	42.1	36.7	42.7	28.5	0.0	40.6	52.0	52.0	52.0
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:	71.3	34.4	34.4	42.1	36.7	42.7	28.5	0.0	40.6	52.0	52.0	52.0
LOS by Move:	E	C-	C-	D	D+	D	C	A	D	D-	D-	D-
HCM2kAvgQ:	185	145	145	1	352	404	148	0	423	22	22	22

Note: Queue reported is the distance per lane in feet.

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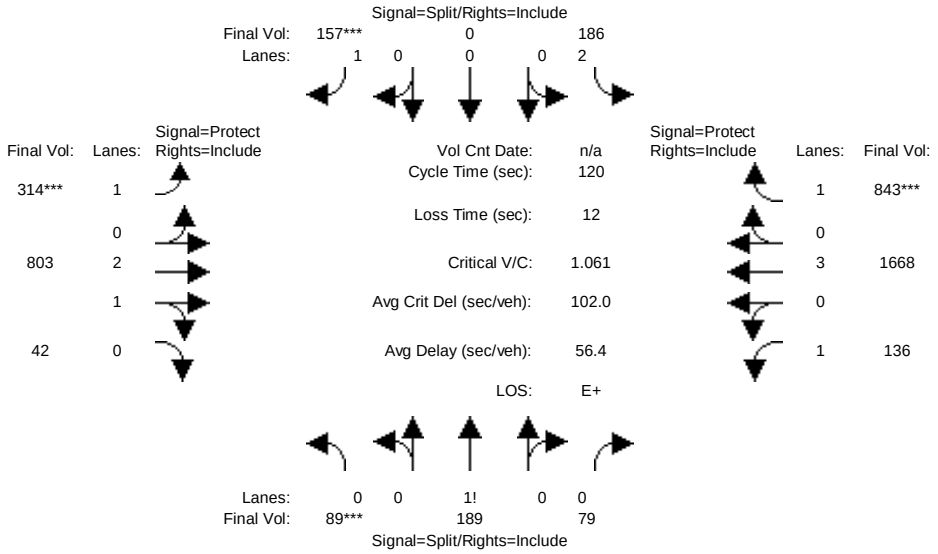
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #44: Tantau Avenue/Stevens Creek Boulevard



Street Name:	Tantau Avenu						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	89	189	79	186	0	157	314	803	42	136	1668	843
Growth Adj:	1.00	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	189	79	186	0	157	314	803	42	136	1668	843
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	189	79	186	0	157	314	803	42	136	1668	843
User Adj:	1.00	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	189	79	186	0	157	314	803	42	136	1668	843
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	189	79	186	0	157	314	803	42	136	1668	843
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	189	79	186	0	157	314	803	42	136	1668	843
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.83	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92
Lanes:	0.25	0.53	0.22	2.00	0.00	1.00	1.00	2.85	0.15	1.00	3.00	1.00
Final Sat.:	436	926	387	3150	0	1750	1750	5321	278	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.20	0.20	0.20	0.06	0.00	0.09	0.18	0.15	0.15	0.08	0.29	0.48
Crit Moves:	****					****	****					****
Green Time:	23.1	23.1	23.1	10.1	0.0	10.1	20.3	49.4	49.4	25.4	54.5	54.5
Volume/Cap:	1.06	1.06	1.06	0.70	0.00	1.06	1.06	0.37	0.37	0.37	0.64	1.06
Uniform Del:	48.5	48.5	48.5	53.4	0.0	54.9	49.9	24.5	24.5	40.4	25.3	32.8
IncremntDel:	66.1	66.1	66.1	14.2	0.0	91.1	69.3	0.5	0.5	2.8	1.3	49.3
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	114.5	115	114.5	67.6	0.0	146.1	119.2	24.9	24.9	43.2	26.5	82.1
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:	114.5	115	114.5	67.6	0.0	146.1	119.2	24.9	24.9	43.2	26.5	82.1
LOS by Move:	F	F	F	E	A	F	F	C	C	D	C	F
HCM2kAvgQ:	535	535	535	136	0	274	481	180	180	119	401	1125

Note: Queue reported is the distance per lane in feet.

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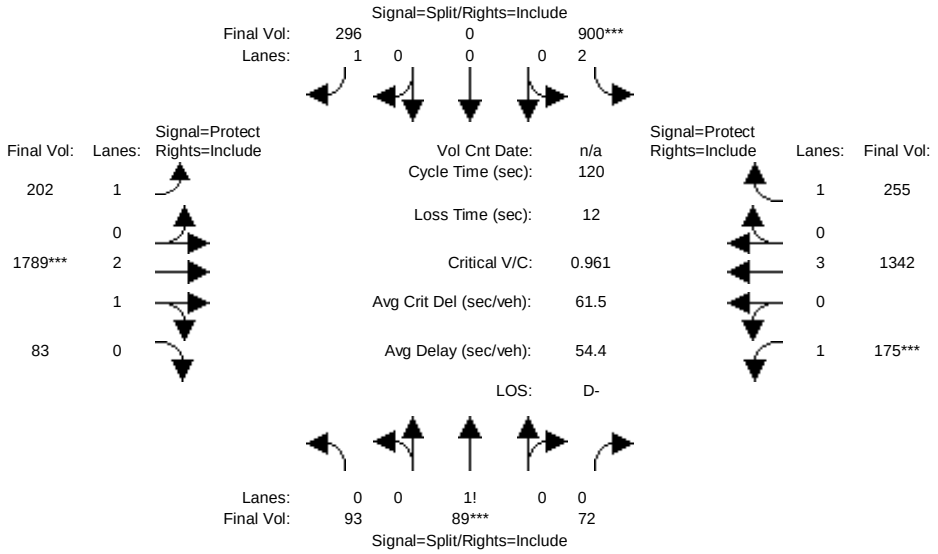
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #44: Tantau Avenue/Stevens Creek Boulevard



Street Name:	Tantau Avenu						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	93	89	72	900	0	296	202	1789	83	175	1342	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:	93	89	72	900	0	296	202	1789	83	175	1342	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:	93	89	72	900	0	296	202	1789	83	175	1342	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:	93	89	72	900	0	296	202	1789	83	175	1342	255
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	93	89	72	900	0	296	202	1789	83	175	1342	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:	93	89	72	900	0	296	202	1789	83	175	1342	255
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.83	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92
Lanes:	0.37	0.35	0.28	2.00	0.00	1.00	1.00	2.86	0.14	1.00	3.00	1.00
Final Sat.:	641	613	496	3150	0	1750	1750	5351	248	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.15	0.15	0.15	0.29	0.00	0.17	0.12	0.33	0.33	0.10	0.24	0.15
Crit Moves:		****		****				****		****		
Green Time:	18.1	18.1	18.1	35.7	0.0	35.7	17.8	41.7	41.7	12.5	36.4	36.4
Volume/Cap:	0.96	0.96	0.96	0.96	0.00	0.57	0.78	0.96	0.96	0.96	0.78	0.48
Uniform Del:	50.6	50.6	50.6	41.5	0.0	35.7	49.2	38.3	38.3	53.5	38.1	34.1
IncremntDel:	46.3	46.3	46.3	21.4	0.0	4.5	20.1	13.1	13.1	57.3	3.5	3.1
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	96.9	96.9	96.9	62.9	0.0	40.1	69.2	51.4	51.4	110.8	41.6	37.2
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:	96.9	96.9	96.9	62.9	0.0	40.1	69.2	51.4	51.4	110.8	41.6	37.2
LOS by Move:	F	F	F	E	A	D	E	D-	D-	F	D	D+
HCM2kAvgQ:	359	359	359	620	0	258	241	705	705	268	413	211

Note: Queue reported is the distance per lane in feet.

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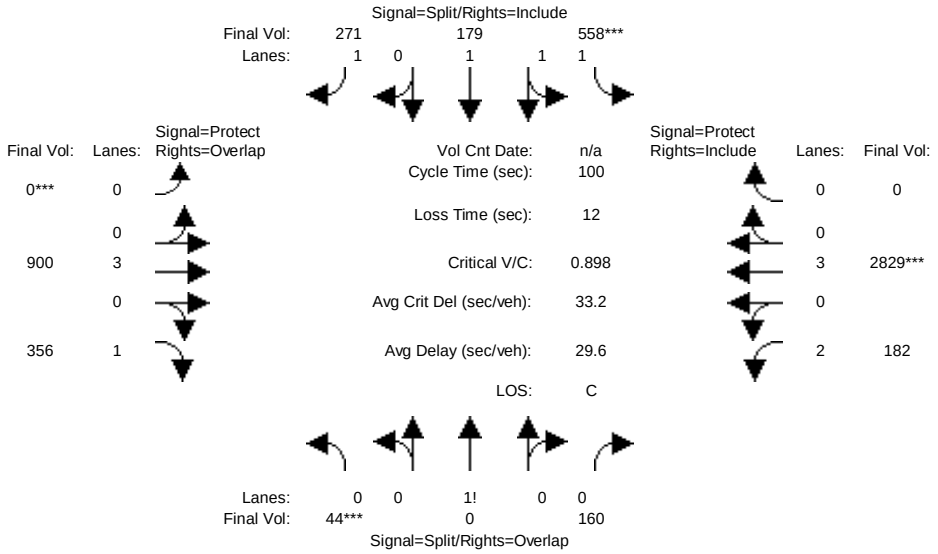
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #45: Stevens Creek Boulevard/Calvert Drive/I-280 Ramps



Street Name:	Stevens Creek Boulevard						Calvert Drive/I-280 Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	0	10	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	44	0	160	558	179	271	0	861	266	182	2443	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:	44	0	160	558	179	271	0	861	266	182	2443	0
Added Vol:	0	0	0	0	0	0	0	39	90	0	386	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	0	160	558	179	271	0	900	356	182	2829	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:	44	0	160	558	179	271	0	900	356	182	2829	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	0	160	558	179	271	0	900	356	182	2829	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:	44	0	160	558	179	271	0	900	356	182	2829	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.22	0.00	0.78	2.00	1.00	1.00	0.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:	377	0	1373	3150	1900	1750	0	5700	1750	3150	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.12	0.00	0.12	0.18	0.09	0.15	0.00	0.16	0.20	0.06	0.50	0.00
Crit Moves:	****			****			****				****	
Green Time:	13.0	0.0	30.0	19.7	19.7	19.7	0.0	38.3	51.3	17.0	55.3	0.0
Volume/Cap:	0.90	0.00	0.39	0.90	0.48	0.78	0.00	0.41	0.40	0.34	0.90	0.00
Uniform Del:	42.9	0.0	27.8	39.2	35.6	38.1	0.0	22.6	14.9	36.6	19.8	0.0
IncremntDel:	38.1	0.0	2.2	14.6	1.1	16.3	0.0	0.6	1.3	1.7	4.6	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	80.9	0.0	29.9	53.8	36.6	54.4	0.0	23.2	16.2	38.3	24.4	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:	80.9	0.0	29.9	53.8	36.6	54.4	0.0	23.2	16.2	38.3	24.4	0.0
LOS by Move:	F	A	C	D-	D+	D-	A	C	B	D+	C	A
HCM2kAvgQ:	249	0	138	341	132	265	0	170	180	80	733	0

Note: Queue reported is the distance per lane in feet.

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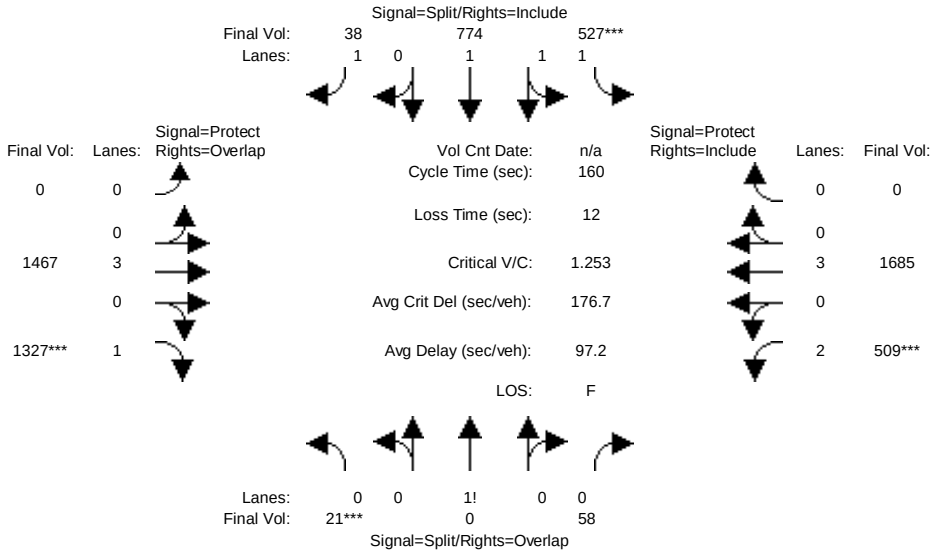
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #45: Stevens Creek Boulevard/Calvert Drive/I-280 Ramps



Street Name:	Stevens Creek Boulevard						Calvert Drive/I-280 Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	0	10	10	10	10	0	10	10	23	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	21	0	58	527	774	38	0	1322	993	509	1472	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:	21	0	58	527	774	38	0	1322	993	509	1472	0
Added Vol:	0	0	0	0	0	0	0	145	334	0	213	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	0	58	527	774	38	0	1467	1327	509	1685	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:	21	0	58	527	774	38	0	1467	1327	509	1685	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	0	58	527	774	38	0	1467	1327	509	1685	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:	21	0	58	527	774	38	0	1467	1327	509	1685	0
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	0.98	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.27	0.00	0.73	1.25	1.75	1.00	0.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:	465	0	1285	2206	3240	1750	0	5700	1750	3150	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.00	0.05	0.24	0.24	0.02	0.00	0.26	0.76	0.16	0.30	0.00
Crit Moves:	****			****					****	****		
Green Time:	10.0	0.0	33.0	29.4	29.4	29.4	0.0	85.6	95.6	23.0	109	0.0
Volume/Cap:	0.72	0.00	0.22	1.30	1.30	0.12	0.00	0.48	1.27	1.12	0.44	0.00
Uniform Del:	73.6	0.0	52.8	65.3	65.3	54.5	0.0	23.3	32.2	68.5	11.7	0.0
IncremntDel:	33.7	0.0	1.4	142.6	143	0.7	0.0	0.5	128.7	80.7	0.4	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	107.3	0.0	54.2	207.9	208	55.2	0.0	23.8	160.9	149.2	12.1	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:	107.3	0.0	54.2	207.9	208	55.2	0.0	23.8	160.9	149.2	12.1	0.0
LOS by Move:	F	A	D-	F	F	E+	A	C	F	F	B	A
HCM2kAvgQ:	139	0	86	918	918	42	0	363	2661	558	304	0

Note: Queue reported is the distance per lane in feet.

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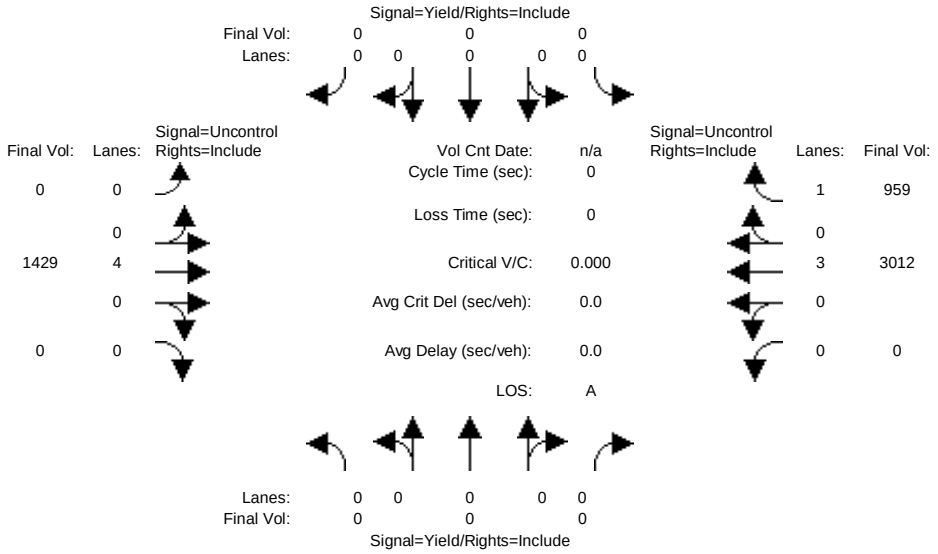
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #46: Stevens Creek Boulevard/I-280 Ramps East



Street Name:	Stevens Creek Boulevard						I-280 Ramps East					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	1390	0	0	2626	959
Growth Adj:	1.00	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	0	0	0	0	1390	0	0	2626	959
Added Vol:	0	0	0	0	0	0	0	39	0	0	386	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	0	0	1429	0	0	3012	959
User Adj:	1.00	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	0	0	0	0	1429	0	0	3012	959
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	0	1429	0	0	3012	959
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #46 Stevens Creek Boulevard/I-280 Ramps East

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 0			0 0 4 0 0			0 0 3 0 1		
Initial Vol:	0	0	0	0	0	0	0	1429	0	0	3012	959
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #46 Stevens Creek Boulevard/I-280 Ramps East

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 0			0 0 4 0 0			0 0 3 0 1		
Initial Vol:	0	0	0	0	0	0	0	1429	0	0	3012	959

Major Street Volume: 5400
Minor Approach Volume: 0
Minor Approach Volume Threshold: -296 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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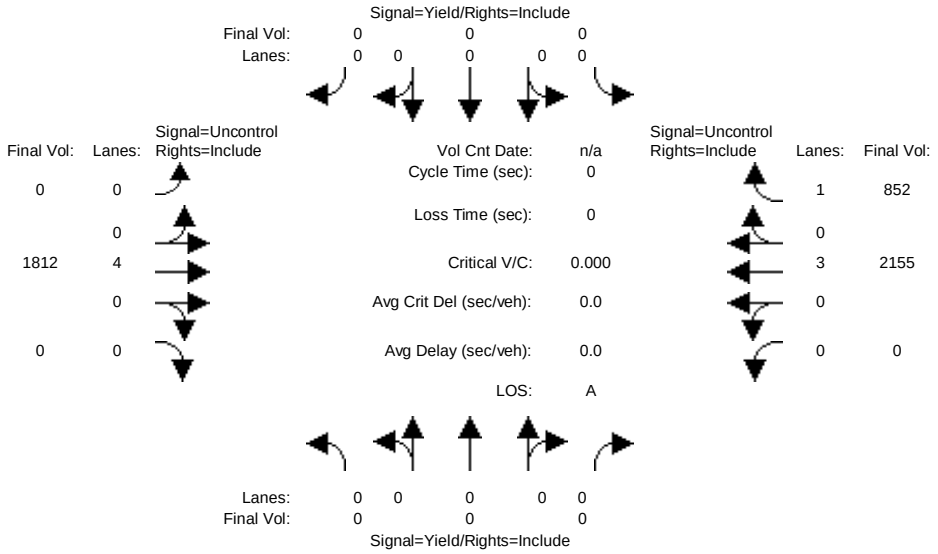
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #46: Stevens Creek Boulevard/I-280 Ramps East




```
Street Name:     Stevens Creek Boulevard              I-280 Ramps East
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0     0    0     0     0 1667     0     0 1942   852
Growth Adj:  1.00 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     0    0     0     0 1667     0     0 1942   852
Added Vol:      0    0     0     0    0     0     0  145     0     0  213     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     0     0    0     0     0 1812     0     0 2155   852
User Adj:    1.00 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     0    0     0     0 1812     0     0 2155   852
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0     0    0     0     0 1812     0     0 2155   852
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         *                *                *                *
Note: Queue reported is the distance per lane in feet.
```

Peak Hour Delay Signal Warrant Report

```
********************************************************************************
Intersection #46 Stevens Creek Boulevard/I-280 Ramps East
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 0			0 0 4 0 0			0 0 3 0 1		
Initial Vol:	0	0	0	0	0	0	0	1812	0	0	2155	852
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #46 Stevens Creek Boulevard/I-280 Ramps East

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 0			0 0 4 0 0			0 0 3 0 1		
Initial Vol:	0	0	0	0	0	0	0	1812	0	0	2155	852

Major Street Volume: 4819
Minor Approach Volume: 0
Minor Approach Volume Threshold: -257 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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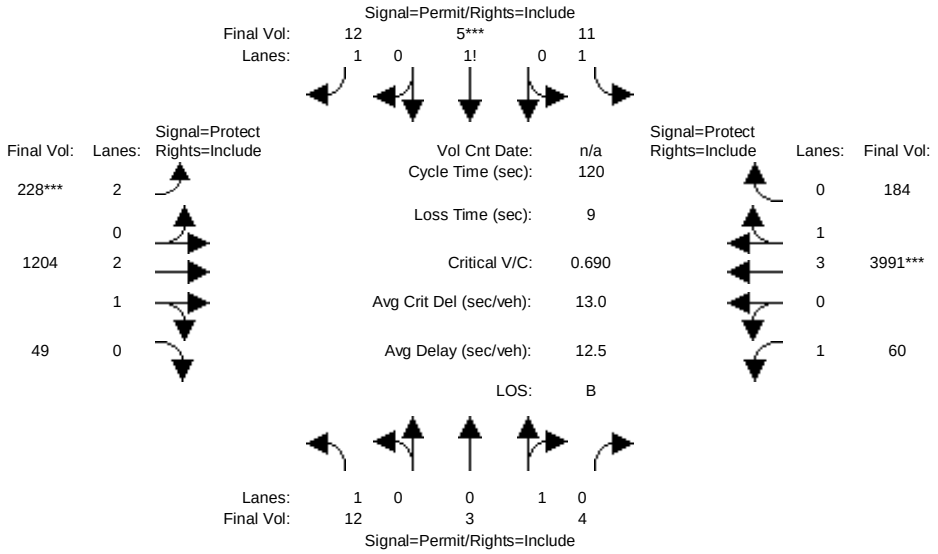
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #47: Stevens Creek Boulevard/Agilent Driveway



Street Name:	Stevens Creek Boulevard						Agilent Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	12	3	4	11	5	12	228	1165	49	60	3605	184
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	3	4	11	5	12	228	1165	49	60	3605	184
Added Vol:	0	0	0	0	0	0	0	39	0	0	386	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	3	4	11	5	12	228	1204	49	60	3991	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:	12	3	4	11	5	12	228	1204	49	60	3991	184
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	3	4	11	5	12	228	1204	49	60	3991	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:	12	3	4	11	5	12	228	1204	49	60	3991	184
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.92	0.92	0.83	0.98	0.95	0.92	0.99	0.95
Lanes:	1.00	0.43	0.57	1.33	0.30	1.37	2.00	2.88	0.12	1.00	3.82	0.18
Final Sat.:	1750	771	1029	2333	530	2386	3150	5381	219	1750	7169	331
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.00	0.00	0.01	0.01	0.07	0.22	0.22	0.03	0.56	0.56
Crit Moves:					****		****				****	
Green Time:	10.0	10.0	10.0	10.0	10.0	10.0	11.6	80.1	80.1	20.9	89.4	89.4
Volume/Cap:	0.08	0.05	0.05	0.06	0.11	0.06	0.75	0.34	0.34	0.20	0.75	0.75
Uniform Del:	50.8	50.6	50.6	50.7	50.9	50.7	52.8	8.5	8.5	42.4	8.8	8.8
IncremntDel:	1.1	0.6	0.6	0.2	0.9	0.2	15.4	0.2	0.2	1.4	0.9	0.9
InitQueuDel:	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:	51.9	51.2	51.2	50.9	51.8	50.9	68.1	8.8	8.8	43.8	9.8	9.8
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:	51.9	51.2	51.2	50.9	51.8	50.9	68.1	8.8	8.8	43.8	9.8	9.8
LOS by Move:	D-	D-	D-	D	D-	D	E	A	A	D	A	A
HCM2kAvgQ:	12	7	7	8	17	9	166	164	164	53	577	577

Note: Queue reported is the distance per lane in feet.

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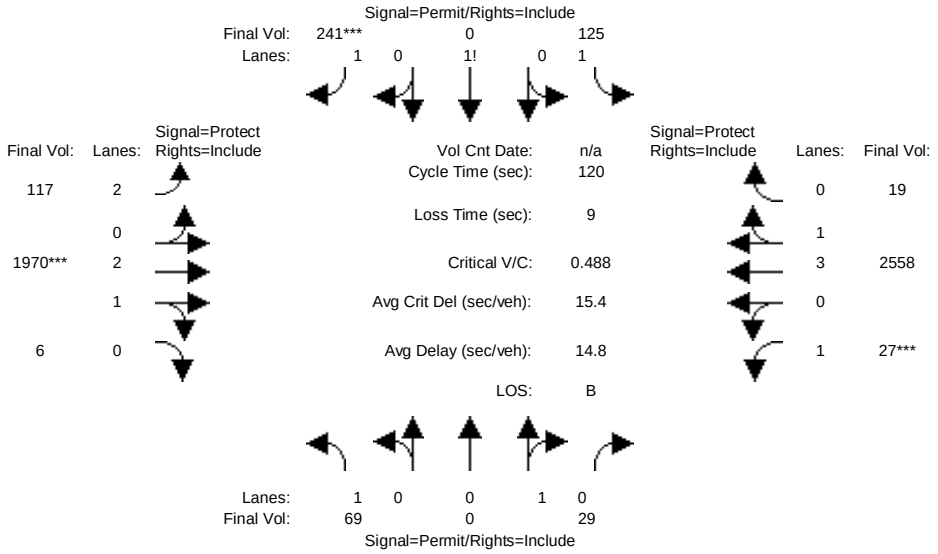
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #47: Stevens Creek Boulevard/Agilent Driveway



Street Name:	Stevens Creek Boulevard						Agilent Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	69	0	29	125	0	241	117	1825	6	27	2345	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	69	0	29	125	0	241	117	1825	6	27	2345	19
Added Vol:	0	0	0	0	0	0	0	145	0	0	213	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	69	0	29	125	0	241	117	1970	6	27	2558	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:	69	0	29	125	0	241	117	1970	6	27	2558	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	69	0	29	125	0	241	117	1970	6	27	2558	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:	69	0	29	125	0	241	117	1970	6	27	2558	19
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.95	0.92	1.00	0.92	0.83	0.98	0.95	0.92	0.99	0.95
Lanes:	1.00	0.00	1.00	1.34	0.00	1.66	2.00	2.99	0.01	1.00	3.97	0.03
Final Sat.:	1750	0	1800	2348	0	2902	3150	5583	17	1750	7445	55
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.02	0.05	0.00	0.08	0.04	0.35	0.35	0.02	0.34	0.34
Crit Moves:						****		****		****		
Green Time:	19.8	0.0	19.8	19.8	0.0	19.8	13.2	84.2	84.2	7.0	78.0	78.0
Volume/Cap:	0.24	0.00	0.10	0.32	0.00	0.50	0.34	0.50	0.50	0.26	0.53	0.53
Uniform Del:	43.5	0.0	42.5	44.2	0.0	45.6	49.3	8.3	8.3	54.0	11.2	11.2
IncremntDel:	1.9	0.0	0.7	0.8	0.0	2.5	2.6	0.5	0.5	6.2	0.4	0.4
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	45.5	0.0	43.2	44.9	0.0	48.1	51.9	8.7	8.7	60.3	11.6	11.6
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:	45.5	0.0	43.2	44.9	0.0	48.1	51.9	8.7	8.7	60.3	11.6	11.6
LOS by Move:	D	A	D	D	A	D	D-	A	A	E	B+	B+
HCM2kAvgQ:	62	0	24	86	0	144	67	283	283	32	318	318

Note: Queue reported is the distance per lane in feet.

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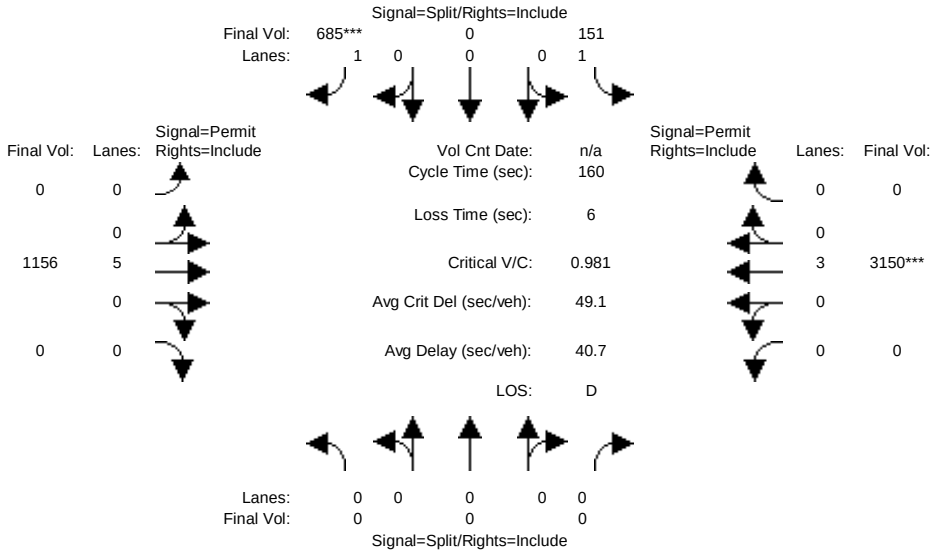
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #48: Stevens Creek Boulevard/Lawrence Expressway Ramps West



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps West					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	20	0	20	0	100	0	0	100	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	151	0	579	0	1117	0	0	2871	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	151	0	579	0	1117	0	0	2871	0
Added Vol:	0	0	0	0	0	106	0	39	0	0	279	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	151	0	685	0	1156	0	0	3150	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	0	0	151	0	685	0	1156	0	0	3150	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	151	0	685	0	1156	0	0	3150	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	151	0	685	0	1156	0	0	3150	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	5.00	0.00	0.00	3.00	0.00
Final Sat.:	0	0	0	1750	0	1750	0	9500	0	0	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.09	0.00	0.39	0.00	0.12	0.00	0.00	0.55	0.00
Crit Moves:						****					****	
Green Time:	0.0	0.0	0.0	54.0	0.0	54.0	0.0	100	0.0	0.0	100	0.0
Volume/Cap:	0.00	0.00	0.00	0.26	0.00	1.16	0.00	0.19	0.00	0.00	0.88	0.00
Uniform Del:	0.0	0.0	0.0	38.4	0.0	53.0	0.0	12.8	0.0	0.0	25.1	0.0
IncremntDel:	0.0	0.0	0.0	1.0	0.0	89.6	0.0	0.1	0.0	0.0	3.6	0.0
InitQueuDel:	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	39.5	0.0	142.6	0.0	12.9	0.0	0.0	28.8	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	39.5	0.0	142.6	0.0	12.9	0.0	0.0	28.8	0.0
LOS by Move:	A	A	A	D	A	F	A	B	A	A	C	A
HCM2kAvgQ:	0	0	0	141	0	1276	0	116	0	0	1120	0

Note: Queue reported is the distance per lane in feet.

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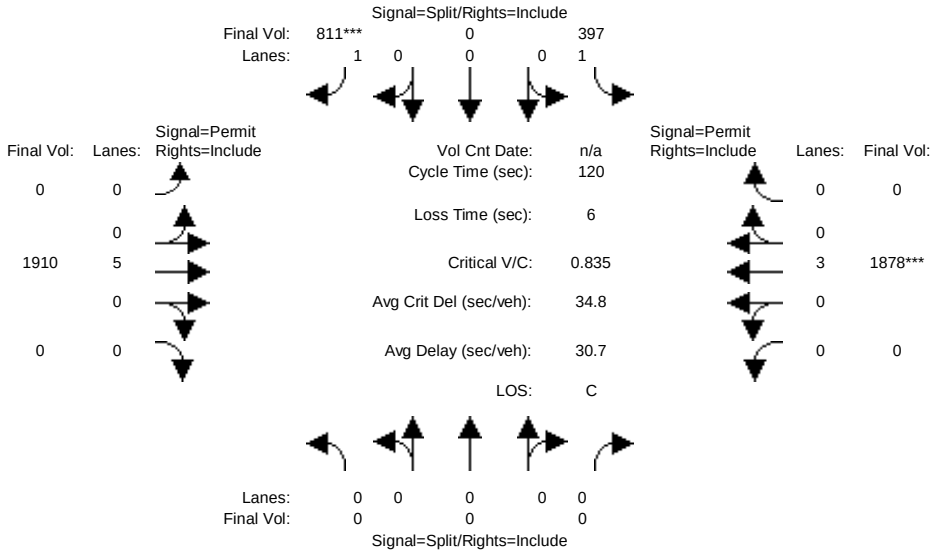
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #48: Stevens Creek Boulevard/Lawrence Expressway Ramps West



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps West					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	10	0	10	0	10	0	0	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	397	0	752	0	1765	0	0	1723	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	397	0	752	0	1765	0	0	1723	0
Added Vol:	0	0	0	0	0	59	0	145	0	0	155	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	397	0	811	0	1910	0	0	1878	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	0	0	397	0	811	0	1910	0	0	1878	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	397	0	811	0	1910	0	0	1878	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	397	0	811	0	1910	0	0	1878	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	5.00	0.00	0.00	3.00	0.00
Final Sat.:	0	0	0	1750	0	1750	0	9500	0	0	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.23	0.00	0.46	0.00	0.20	0.00	0.00	0.33	0.00
Crit Moves:						****					****	
Green Time:	0.0	0.0	0.0	66.6	0.0	66.6	0.0	47.4	0.0	0.0	47.4	0.0
Volume/Cap:	0.00	0.00	0.00	0.41	0.00	0.83	0.00	0.51	0.00	0.00	0.83	0.00
Uniform Del:	0.0	0.0	0.0	15.4	0.0	22.1	0.0	27.5	0.0	0.0	32.8	0.0
IncremntDel:	0.0	0.0	0.0	1.3	0.0	8.4	0.0	0.5	0.0	0.0	3.8	0.0
InitQueuDel:	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	16.6	0.0	30.5	0.0	28.0	0.0	0.0	36.6	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	16.6	0.0	30.5	0.0	28.0	0.0	0.0	36.6	0.0
LOS by Move:	A	A	A	B	A	C	A	C	A	A	D+	A
HCM2kAvgQ:	0	0	0	224	0	714	0	267	0	0	557	0

Note: Queue reported is the distance per lane in feet.

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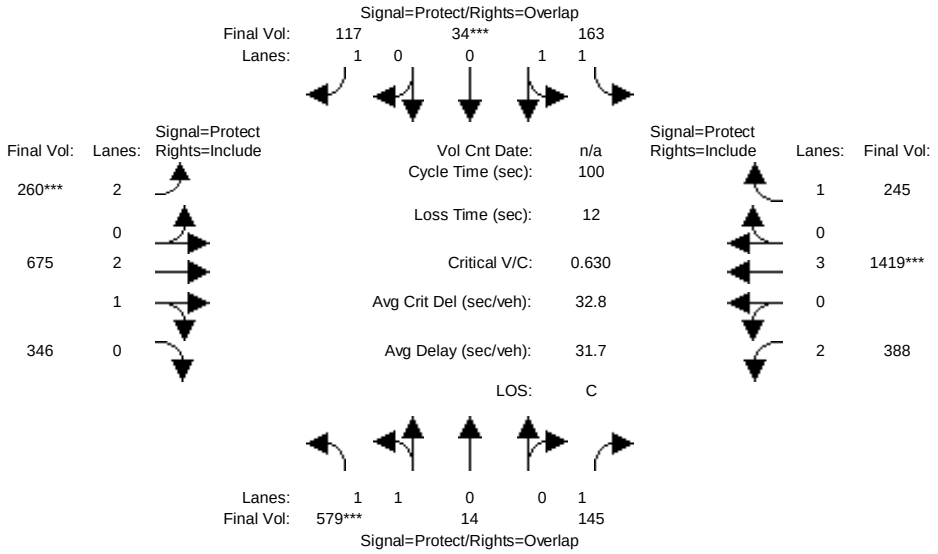
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #49: Lawrence Expressway Ramps/El Camino Real



Street Name:	Lawrence Expressway Ramp						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	579	14	141	163	34	90	252	671	346	375	1406	245
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	579	14	141	163	34	90	252	671	346	375	1406	245
Added Vol:	0	0	4	0	0	27	8	4	0	13	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	579	14	145	163	34	117	260	675	346	388	1419	245
User Adj:	1.00	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:	579	14	145	163	34	117	260	675	346	388	1419	245
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	579	14	145	163	34	117	260	675	346	388	1419	245
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	579	14	145	163	34	117	260	675	346	388	1419	245
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.93	0.95	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	1.95	0.05	1.00	1.66	0.34	1.00	2.00	2.00	1.00	2.00	3.00	1.00
Final Sat.:	3466	84	1750	2937	613	1750	3150	3800	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.17	0.17	0.08	0.06	0.06	0.07	0.08	0.18	0.20	0.12	0.25	0.14
Crit Moves:	****				****		****				****	
Green Time:	26.1	25.5	45.4	10.7	10.0	22.9	12.9	32.0	32.0	19.9	39.0	39.0
Volume/Cap:	0.64	0.66	0.18	0.52	0.55	0.29	0.64	0.56	0.62	0.62	0.64	0.36
Uniform Del:	32.8	33.3	16.3	42.2	42.9	31.8	41.3	28.2	28.9	36.6	24.8	21.7
IncremntDel:	3.4	3.7	0.5	5.0	6.1	1.8	7.5	1.2	1.8	4.5	1.4	1.5
InitQueuDel:	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:	36.1	37.1	16.8	47.3	49.0	33.7	48.8	29.4	30.6	41.1	26.2	23.1
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:	36.1	37.1	16.8	47.3	49.0	33.7	48.8	29.4	30.6	41.1	26.2	23.1
LOS by Move:	D+	D+	B	D	D	C-	D	C	C	D	C	C
HCM2kAvgQ:	237	241	71	94	98	83	142	224	260	186	309	145

Note: Queue reported is the distance per lane in feet.

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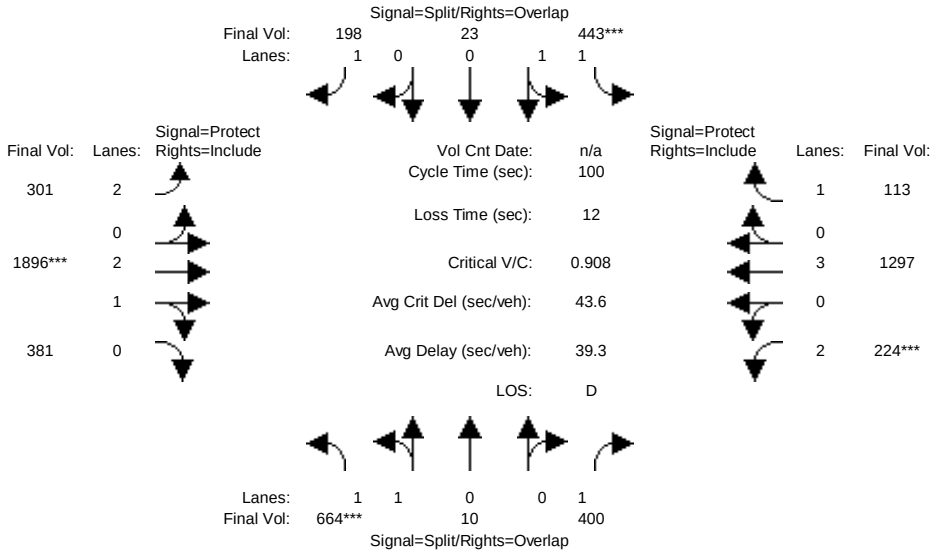
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #49: Lawrence Expressway Ramps/El Camino Real



Street Name:	Lawrence Expressway Ramp						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	664	10	385	443	23	183	272	1881	381	217	1290	113
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	664	10	385	443	23	183	272	1881	381	217	1290	113
Added Vol:	0	0	15	0	0	15	29	15	0	7	7	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	664	10	400	443	23	198	301	1896	381	224	1297	113
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	664	10	400	443	23	198	301	1896	381	224	1297	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	664	10	400	443	23	198	301	1896	381	224	1297	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	664	10	400	443	23	198	301	1896	381	224	1297	113
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.93	0.95	0.92	0.83	0.99	0.95	0.83	1.00	0.92
Lanes:	1.97	0.03	1.00	1.90	0.10	1.00	2.00	2.48	0.52	2.00	3.00	1.00
Final Sat.:	3497	53	1750	3375	175	1750	3150	4662	937	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.19	0.19	0.23	0.13	0.13	0.11	0.10	0.41	0.41	0.07	0.23	0.06
Crit Moves:	****			****				****		****		
Green Time:	20.9	20.9	28.7	14.5	14.5	30.0	15.6	44.8	44.8	7.8	37.1	37.1
Volume/Cap:	0.91	0.91	0.80	0.91	0.91	0.38	0.61	0.91	0.91	0.91	0.61	0.17
Uniform Del:	38.6	38.6	32.9	42.1	42.1	27.6	39.4	25.7	25.7	45.7	25.6	21.2
IncremntDel:	17.0	17.0	12.3	22.4	22.4	2.1	5.7	6.2	6.2	37.7	1.3	0.6
InitQueuDel:	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:	55.6	55.6	45.2	64.5	64.5	29.7	45.1	31.8	31.8	83.4	27.0	21.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	55.6	55.6	45.2	64.5	64.5	29.7	45.1	31.8	31.8	83.4	27.0	21.8
LOS by Move:	E+	E+	D	E	E	C	D	C	C	F	C	C+
HCM2kAvgQ:	365	365	358	276	276	133	154	651	651	177	283	63

Note: Queue reported is the distance per lane in feet.

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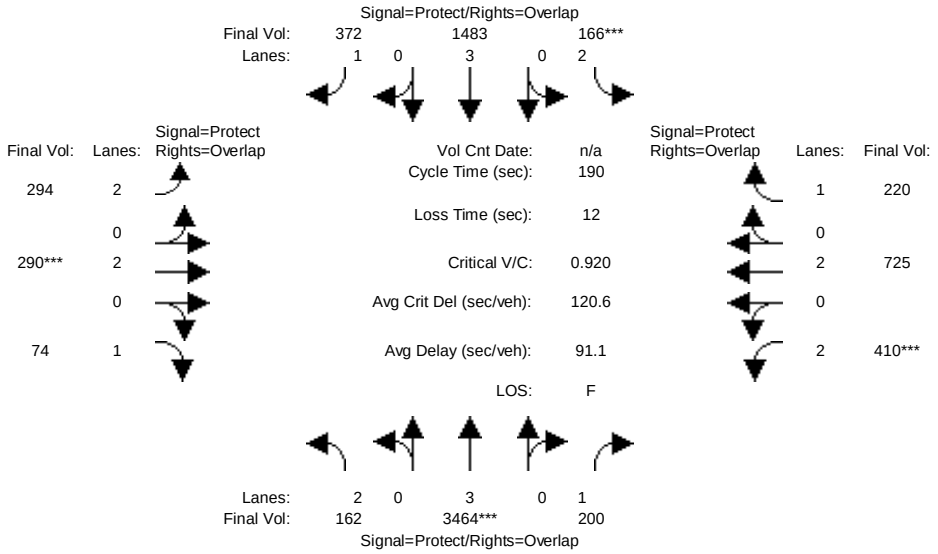
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #50: Lawrence Expressway/Homestead Road



Street Name:	Lawrence Expressway						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	22	110	110	17	102	102	23	43	43	27	43	43
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	162	3966	192	166	1599	359	275	282	74	383	698	220
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	162	3966	192	166	1599	359	275	282	74	383	698	220
Added Vol:	0	16	8	0	106	13	19	8	0	27	27	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	162	3982	200	166	1705	372	294	290	74	410	725	220
User Adj:	1.00	0.87	1.00	1.00	0.87	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:	162	3464	200	166	1483	372	294	290	74	410	725	220
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	162	3464	200	166	1483	372	294	290	74	410	725	220
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	162	3464	200	166	1483	372	294	290	74	410	725	220
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.61	0.11	0.05	0.26	0.21	0.09	0.08	0.04	0.13	0.19	0.13
Crit Moves:		****		****				****		****		
Green Time:	20.5	100	124.5	15.5	95.0	117.1	22.2	39.1	59.6	24.5	41.5	56.9
Volume/Cap:	0.48	1.15	0.17	0.65	0.52	0.34	0.80	0.37	0.13	1.01	0.87	0.42
Uniform Del:	87.7	49.5	14.0	93.1	35.3	19.5	89.9	71.4	51.4	91.0	78.9	58.6
IncremntDel:	4.7	73.9	0.3	12.0	0.7	0.9	16.5	1.4	0.5	46.5	12.4	2.5
InitQueuDel:	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:	92.4	123	14.3	105.1	36.0	20.4	106.4	72.7	51.9	137.5	91.3	61.1
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:	92.4	123	14.3	105.1	36.0	20.4	106.4	72.7	51.9	137.5	91.3	61.1
LOS by Move:	F	F	B	F	D+	C+	F	E	D-	F	F	E
HCM2kAvgQ:	155	2304	128	179	512	299	318	195	87	501	614	296

Note: Queue reported is the distance per lane in feet.

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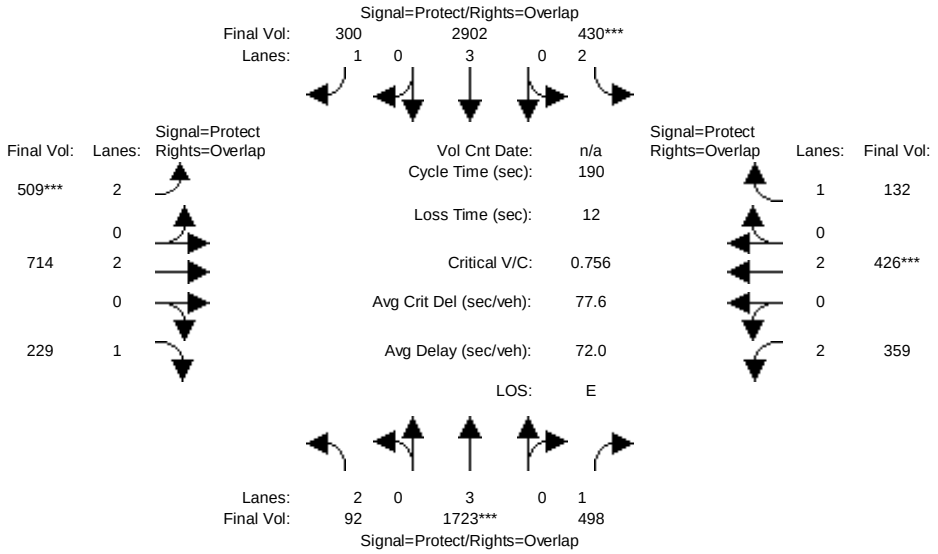
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #50: Lawrence Expressway/Homestead Road



Street Name:	Lawrence Expressway						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	17	95	95	28	105	105	34	38	38	30	41	41
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	92	2123	469	430	3615	293	436	685	229	344	411	132
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	92	2123	469	430	3615	293	436	685	229	344	411	132
Added Vol:	0	58	29	0	59	7	73	29	0	15	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	92	2181	498	430	3674	300	509	714	229	359	426	132
User Adj:	1.00	0.79	1.00	1.00	0.79	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:	92	1723	498	430	2902	300	509	714	229	359	426	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	1723	498	430	2902	300	509	714	229	359	426	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	92	1723	498	430	2902	300	509	714	229	359	426	132
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.30	0.28	0.14	0.51	0.17	0.16	0.19	0.13	0.11	0.11	0.08
Crit Moves:		****		****			****				****	
Green Time:	15.4	86.0	115.3	25.3	95.9	126.7	30.8	38.5	53.9	29.3	37.1	62.4
Volume/Cap:	0.36	0.67	0.47	1.02	1.01	0.26	1.00	0.93	0.46	0.74	0.57	0.23
Uniform Del:	91.4	45.1	22.7	91.0	52.0	14.1	88.0	82.2	62.0	84.8	76.6	51.2
IncremntDel:	3.9	1.4	1.5	50.1	18.9	0.5	39.4	18.7	3.1	9.7	3.2	0.9
InitQueuDel:	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:	95.3	46.5	24.2	141.1	70.9	14.6	127.3	101	65.0	94.4	79.8	52.1
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:	95.3	46.5	24.2	141.1	70.9	14.6	127.3	101	65.0	94.4	79.8	52.1
LOS by Move:	F	D	C	F	E	B	F	F	E	F	E-	D-
HCM2kAvgQ:	90	705	455	530	1699	200	601	639	320	359	313	159

Note: Queue reported is the distance per lane in feet.

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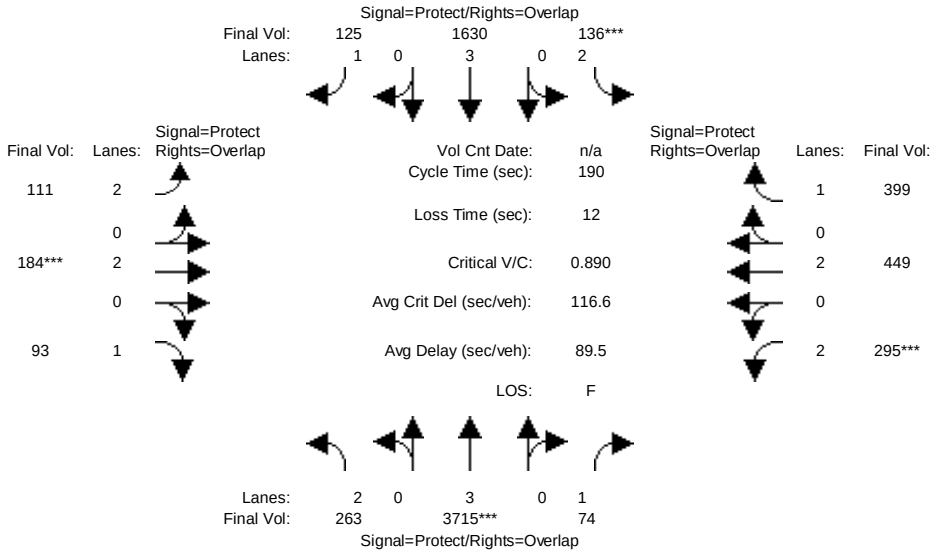
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #51: Lawrence Expressway/Pruneridge Avenue



Street Name:	Lawrence Expressway						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	19	113	113	16	111	111	19	37	37	24	42	42
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	263	4254	74	136	1768	98	103	176	93	295	422	399
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	263	4254	74	136	1768	98	103	176	93	295	422	399
Added Vol:	0	16	0	0	106	27	8	8	0	0	27	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	263	4270	74	136	1874	125	111	184	93	295	449	399
User Adj:	1.00	0.87	1.00	1.00	0.87	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:	263	3715	74	136	1630	125	111	184	93	295	449	399
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	263	3715	74	136	1630	125	111	184	93	295	449	399
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	263	3715	74	136	1630	125	111	184	93	295	449	399
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.65	0.04	0.04	0.29	0.07	0.04	0.05	0.05	0.09	0.12	0.23
Crit Moves:		****		****				****		****		
Green Time:	17.8	107	129.2	15.0	104	121.7	17.8	34.6	52.4	22.5	39.3	54.3
Volume/Cap:	0.89	1.16	0.06	0.55	0.52	0.11	0.38	0.27	0.19	0.79	0.57	0.80
Uniform Del:	91.0	44.5	10.9	90.0	29.2	14.1	86.4	71.3	56.2	87.1	72.4	67.1
IncremntDel:	30.9	76.1	0.1	8.4	0.6	0.2	3.6	0.9	0.9	15.8	3.0	12.5
InitQueuDel:	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:	121.8	121	11.0	98.4	29.8	14.3	90.1	72.3	57.1	102.8	75.4	79.6
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:	121.8	121	11.0	98.4	29.8	14.3	90.1	72.3	57.1	102.8	75.4	79.6
LOS by Move:	F	F	B+	F	C	B	F	E	E+	F	E-	E-
HCM2kAvgQ:	306	2424	40	138	513	77	103	120	115	310	316	645

Note: Queue reported is the distance per lane in feet.

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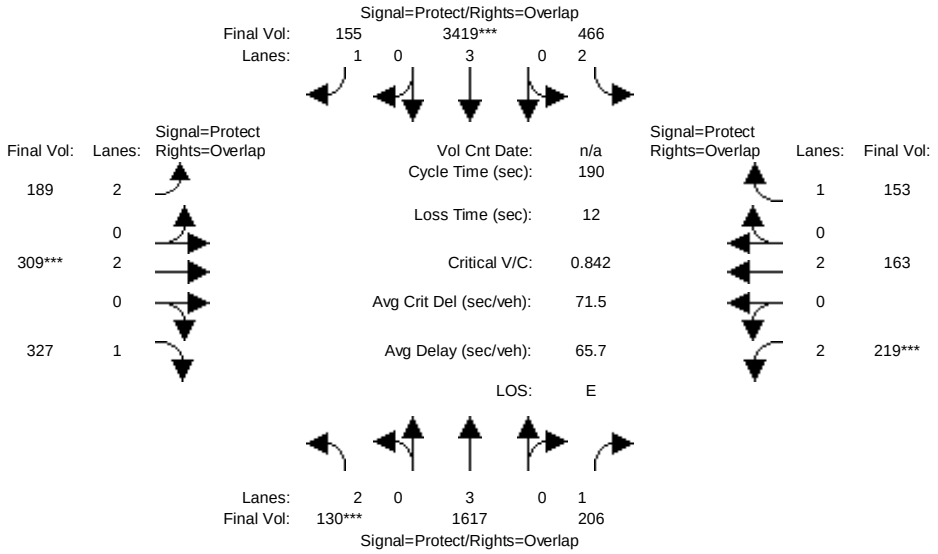
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #51: Lawrence Expressway/Pruneridge Avenue



Street Name:	Lawrence Expressway						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	18	107	107	28	117	117	17	33	33	22	38	38
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	130	2042	206	466	4111	140	160	280	327	219	148	153
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	130	2042	206	466	4111	140	160	280	327	219	148	153
Added Vol:	0	58	0	0	59	15	29	29	0	0	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	130	2100	206	466	4170	155	189	309	327	219	163	153
User Adj:	1.00	0.77	1.00	1.00	0.82	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:	130	1617	206	466	3419	155	189	309	327	219	163	153
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	130	1617	206	466	3419	155	189	309	327	219	163	153
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	130	1617	206	466	3419	155	189	309	327	219	163	153
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.28	0.12	0.15	0.60	0.09	0.06	0.08	0.19	0.07	0.04	0.09
Crit Moves:	****				****			****			****	
Green Time:	16.9	101	121.3	26.3	110	126.0	16.0	31.0	48.0	20.7	35.7	62.1
Volume/Cap:	0.46	0.54	0.18	1.07	1.04	0.13	0.71	0.50	0.74	0.64	0.23	0.27
Uniform Del:	87.4	31.2	15.0	87.0	42.5	12.6	90.1	77.0	69.4	86.2	69.6	50.2
IncremntDel:	5.4	0.7	0.4	62.1	25.9	0.2	15.1	2.8	10.6	8.8	0.7	1.1
InitQueuDel:	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:	92.8	31.9	15.3	149.1	68.4	12.8	105.2	79.8	80.0	95.0	70.3	51.3
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:	92.8	31.9	15.3	149.1	68.4	12.8	105.2	79.8	80.0	95.0	70.3	51.3
LOS by Move:	F	C	B	F	E	B	F	E-	F	F	E	D-
HCM2kAvgQ:	125	525	134	573	1965	91	203	221	519	215	104	181

Note: Queue reported is the distance per lane in feet.

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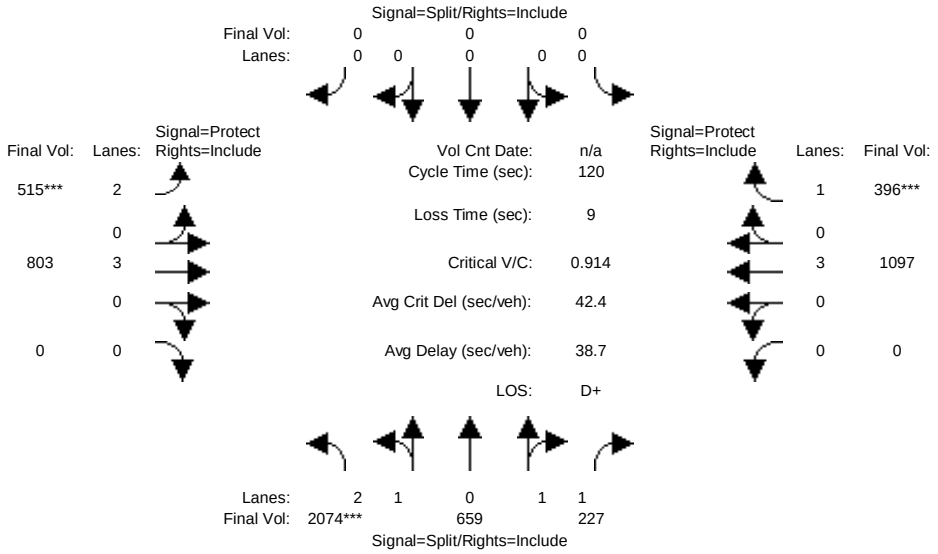
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #52: Stevens Creek Boulevard/Lawrence Expressway Ramps East



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps East					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	0	0	0	23	10	0	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	1874	659	227	0	0	0	499	780	0	0	1017	396
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1874	659	227	0	0	0	499	780	0	0	1017	396
Added Vol:	200	0	0	0	0	0	16	23	0	0	80	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2074	659	227	0	0	0	515	803	0	0	1097	396
User Adj:	1.00	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:	2074	659	227	0	0	0	515	803	0	0	1097	396
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2074	659	227	0	0	0	515	803	0	0	1097	396
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	2074	659	227	0	0	0	515	803	0	0	1097	396
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.80	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	3.00	1.00	1.00	0.00	0.00	0.00	2.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	4551	1900	1750	0	0	0	3150	5700	0	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.46	0.35	0.13	0.00	0.00	0.00	0.16	0.14	0.00	0.00	0.19	0.23
Crit Moves:	****						****					****
Green Time:	58.8	58.8	58.8	0.0	0.0	0.0	23.0	52.2	0.0	0.0	29.2	29.2
Volume/Cap:	0.93	0.71	0.26	0.00	0.00	0.00	0.85	0.32	0.00	0.00	0.79	0.93
Uniform Del:	28.7	23.9	17.9	0.0	0.0	0.0	46.9	22.3	0.0	0.0	42.5	44.4
IncremntDel:	6.3	1.0	0.1	0.0	0.0	0.0	14.2	0.3	0.0	0.0	4.7	29.2
InitQueuDel:	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	1.00	1.00	0.00	0.00	1.00	1.00
Delay/Veh:	34.9	24.9	18.0	0.0	0.0	0.0	61.1	22.6	0.0	0.0	47.2	73.6
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:	34.9	24.9	18.0	0.0	0.0	0.0	61.1	22.6	0.0	0.0	47.2	73.6
LOS by Move:	C-	C	B	A	A	A	E	C+	A	A	D	E
HCM2kAvgQ:	854	486	129	0	0	0	320	161	0	0	361	490

Note: Queue reported is the distance per lane in feet.

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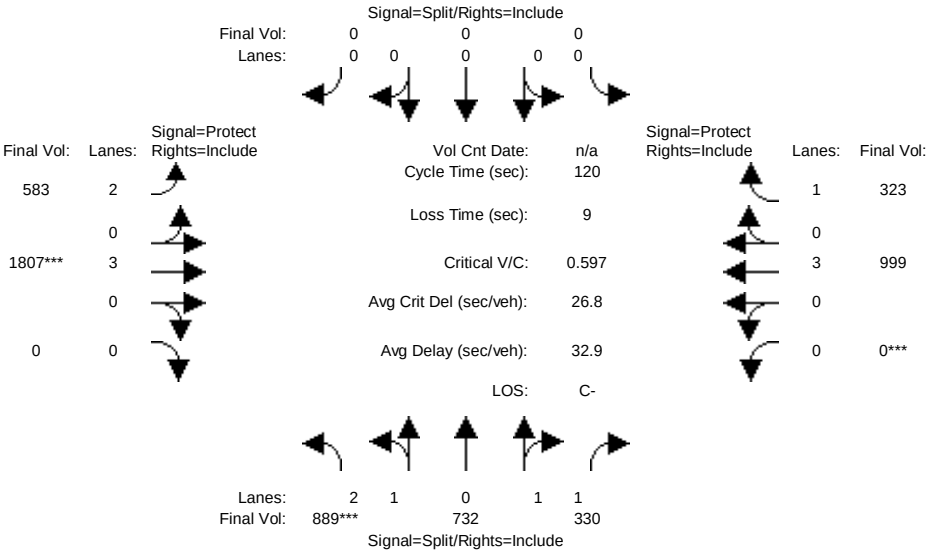
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #52: Stevens Creek Boulevard/Lawrence Expressway Ramps East



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps East					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	50	50	50	0	0	0	34	70	0	0	35	35
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	779	732	330	0	0	0	525	1720	0	0	955	323
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	779	732	330	0	0	0	525	1720	0	0	955	323
Added Vol:	110	0	0	0	0	0	58	87	0	0	44	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	889	732	330	0	0	0	583	1807	0	0	999	323
User Adj:	1.00	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:	889	732	330	0	0	0	583	1807	0	0	999	323
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	889	732	330	0	0	0	583	1807	0	0	999	323
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	889	732	330	0	0	0	583	1807	0	0	999	323
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.84	0.98	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.34	1.66	1.00	0.00	0.00	0.00	2.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	3736	3076	1750	0	0	0	3150	5700	0	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.24	0.24	0.19	0.00	0.00	0.00	0.19	0.32	0.00	0.00	0.18	0.18
Crit Moves:	****							****		****		
Green Time:	46.5	46.5	46.5	0.0	0.0	0.0	32.1	65.1	0.0	0.0	33.0	33.0
Volume/Cap:	0.61	0.61	0.49	0.00	0.00	0.00	0.69	0.58	0.00	0.00	0.64	0.67
Uniform Del:	31.7	31.7	29.8	0.0	0.0	0.0	42.5	19.8	0.0	0.0	41.1	41.5
IncremntDel:	0.9	0.9	0.4	0.0	0.0	0.0	4.6	0.8	0.0	0.0	2.0	7.3
InitQueuDel:	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	1.00	1.00	0.00	0.00	1.00	1.00
Delay/Veh:	32.6	32.6	30.2	0.0	0.0	0.0	47.1	20.6	0.0	0.0	43.1	48.8
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:	32.6	32.6	30.2	0.0	0.0	0.0	47.1	20.6	0.0	0.0	43.1	48.8
LOS by Move:	C-	C-	C	A	A	A	D	C+	A	A	D	D
HCM2kAvgQ:	364	364	265	0	0	0	324	405	0	0	303	326

Note: Queue reported is the distance per lane in feet.

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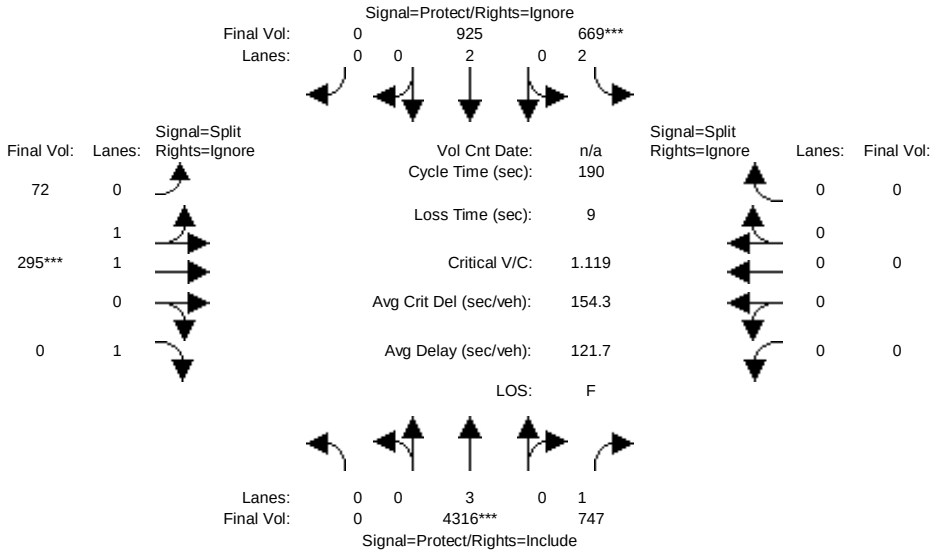
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #53: Lawrence Expressway/I-280 Ramps South



Street Name:	Lawrence Expressway						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	102	120	36	156	0	34	34	34	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	4249	747	669	925	0	72	256	272	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	4249	747	669	925	0	72	256	272	0	0	0
Added Vol:	0	67	0	0	0	0	0	39	51	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	4316	747	669	925	0	72	295	323	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	4316	747	669	925	0	72	295	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	4316	747	669	925	0	72	295	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	4316	747	669	925	0	72	295	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.95	0.98	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	0.40	1.60	1.00	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	726	2974	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.76	0.43	0.21	0.24	0.00	0.10	0.10	0.00	0.00	0.00	0.00
Crit Moves:		****		****				****				
Green Time:	0.0	115	114.6	34.4	149	0.0	32.5	32.5	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	1.26	0.71	1.17	0.31	0.00	0.58	0.58	0.00	0.00	0.00	0.00
Uniform Del:	0.0	39.5	27.4	81.5	6.1	0.0	75.9	75.9	0.0	0.0	0.0	0.0
IncremntDel:	0.0	118	4.0	95.7	0.3	0.0	3.9	3.9	0.0	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	157	31.4	177.2	6.4	0.0	79.8	79.8	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
AdjDel/Veh:	0.0	157	31.4	177.2	6.4	0.0	79.8	79.8	0.0	0.0	0.0	0.0
LOS by Move:	A	F	C	F	A	A	E-	E-	A	A	A	A
HCM2kAvgQ:	0	3013	834	852	194	0	272	272	0	0	0	0

Note: Queue reported is the distance per lane in feet.

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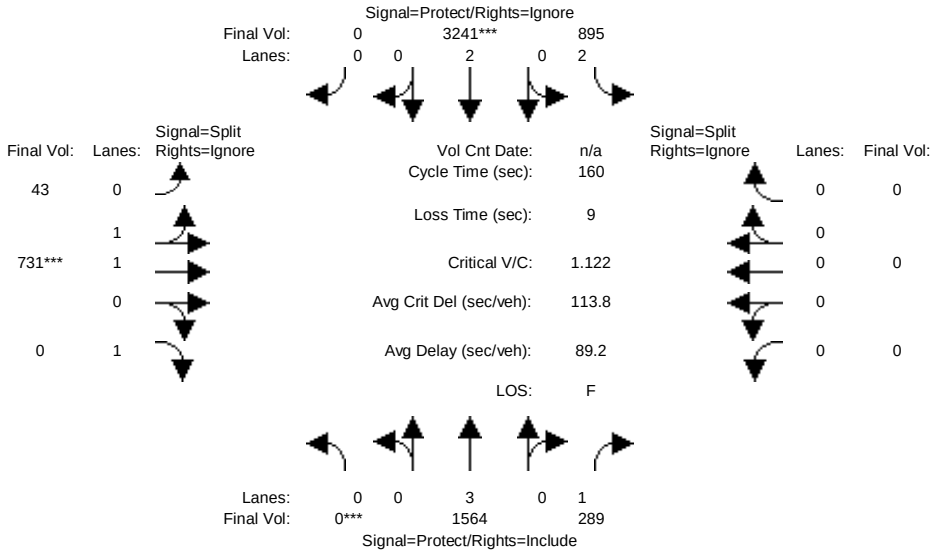
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #53: Lawrence Expressway/I-280 Ramps South



Street Name:	Lawrence Expressway						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	43	43	50	119	0	41	41	41	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1527	289	895	3241	0	43	586	643	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1527	289	895	3241	0	43	586	643	0	0	0
Added Vol:	0	37	0	0	0	0	0	145	189	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1564	289	895	3241	0	43	731	832	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	1564	289	895	3241	0	43	731	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1564	289	895	3241	0	43	731	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	1564	289	895	3241	0	43	731	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.95	0.98	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	0.11	1.89	1.00	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	206	3494	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.17	0.28	0.85	0.00	0.21	0.21	0.00	0.00	0.00	0.00
Crit Moves:	****				****			****				
Green Time:	0.0	54.2	54.2	58.5	113	0.0	38.8	38.8	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.81	0.49	0.78	1.21	0.00	0.86	0.86	0.00	0.00	0.00	0.00
Uniform Del:	0.0	50.9	44.2	47.5	25.0	0.0	61.3	61.3	0.0	0.0	0.0	0.0
IncremntDel:	0.0	3.8	2.9	5.2	98.8	0.0	10.7	10.7	0.0	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	54.7	47.1	52.7	124	0.0	72.0	72.0	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	54.7	47.1	52.7	124	0.0	72.0	72.0	0.0	0.0	0.0	0.0
LOS by Move:	A	D-	D	D-	F	A	E	E	A	A	A	A
HCM2kAvgQ:	0	644	315	637	2911	0	550	550	0	0	0	0

Note: Queue reported is the distance per lane in feet.

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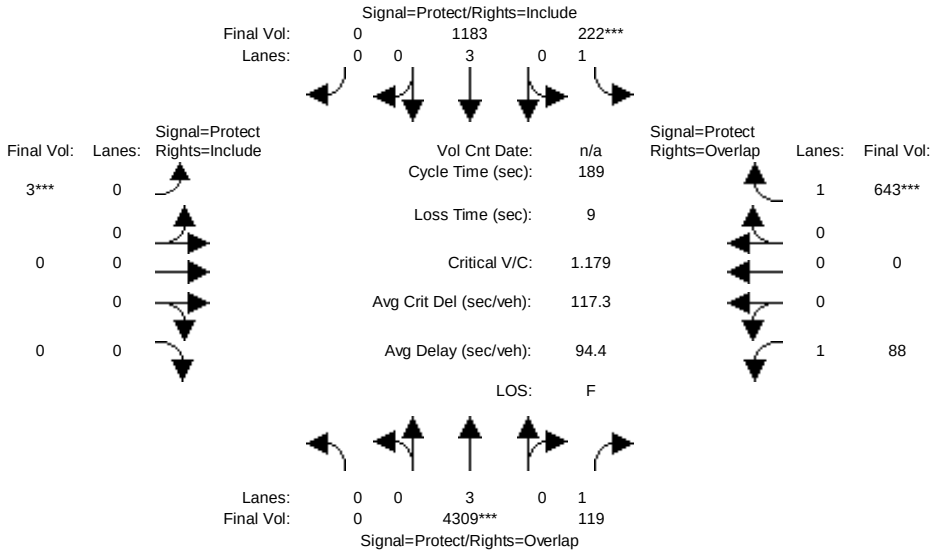
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #54: Lawrence Expressway/Mitty Way



Street Name:	Lawrence Expressway						Mitty Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	129	129	32	161	0	0	0	0	27	0	27
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	4256	119	218	1136	0	3	0	0	88	0	630
Growth Adj:	1.00	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	4256	119	218	1136	0	3	0	0	88	0	630
Added Vol:	0	53	0	4	47	0	0	0	0	0	0	13
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	4309	119	222	1183	0	3	0	0	88	0	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:	0	4309	119	222	1183	0	3	0	0	88	0	643
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	4309	119	222	1183	0	3	0	0	88	0	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:	0	4309	119	222	1183	0	3	0	0	88	0	643
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	3.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5700	0	1750	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.76	0.07	0.13	0.21	0.00	0.00	0.00	0.00	0.05	0.00	0.37
Crit Moves:		****		****			****					****
Green Time:	0.0	124	149.7	30.7	154	0.0	0.2	0.0	0.0	25.9	0.0	56.4
Volume/Cap:	0.00	1.15	0.09	0.78	0.25	0.00	1.51	0.00	0.00	0.37	0.00	1.23
Uniform Del:	0.0	34.0	4.6	79.1	4.2	0.0	98.4	0.0	0.0	77.2	0.0	69.1
IncremntDel:	0.0	72.9	0.1	18.9	0.1	0.0	906.3	0.0	0.0	4.3	0.0	120.1
InitQueuDel:	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	1.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	107	4.7	98.1	4.3	0.0	1005	0.0	0.0	81.5	0.0	189.2
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	107	4.7	98.1	4.3	0.0	1005	0.0	0.0	81.5	0.0	189.2
LOS by Move:	A	F	A	F	A	A	F	A	A	F	A	F
HCM2kAvgQ:	0	2715	42	384	133	0	22	0	0	133	0	1471

Note: Queue reported is the distance per lane in feet.

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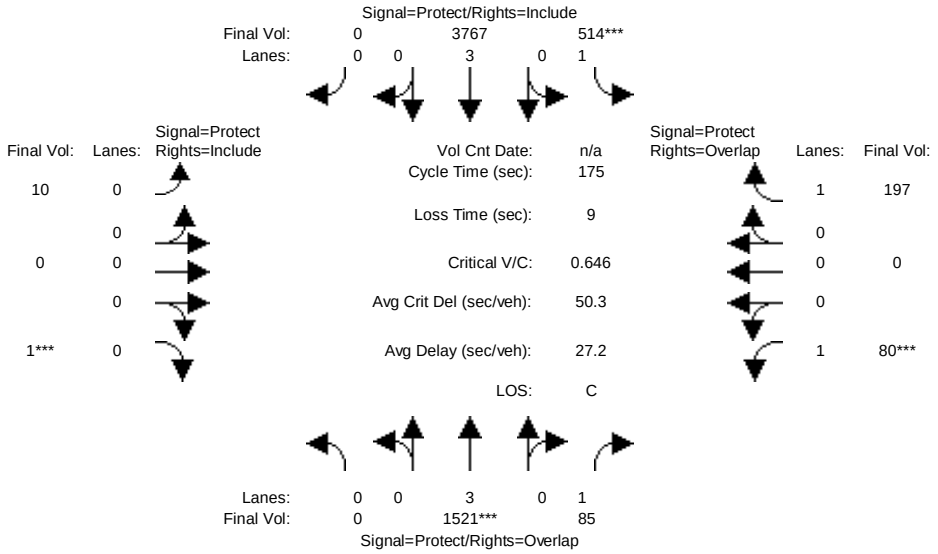
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #54: Lawrence Expressway/Mitty Way



Street Name:	Lawrence Expressway						Mitty Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	82	82	22	131	0	0	0	0	29	0	29
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1492	85	499	3593	0	10	0	1	80	0	190
Growth Adj:	1.00	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	1492	85	499	3593	0	10	0	1	80	0	190
Added Vol:	0	29	0	15	174	0	0	0	0	0	0	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1521	85	514	3767	0	10	0	1	80	0	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:	0	1521	85	514	3767	0	10	0	1	80	0	197
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1521	85	514	3767	0	10	0	1	80	0	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:	0	1521	85	514	3767	0	10	0	1	80	0	197
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	3.00	0.00	0.91	0.00	0.09	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5700	0	1591	0	159	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.05	0.29	0.66	0.00	0.01	0.00	0.01	0.05	0.00	0.11
Crit Moves:		****		****					****	****		
Green Time:	0.0	82.0	111.0	53.8	136	0.0	30.2	0.0	1.2	29.0	0.0	82.8
Volume/Cap:	0.00	0.57	0.08	0.95	0.85	0.00	0.04	0.00	0.95	0.28	0.00	0.24
Uniform Del:	0.0	33.7	12.3	59.4	12.9	0.0	60.3	0.0	86.9	63.8	0.0	27.3
IncremntDel:	0.0	0.9	0.1	29.0	2.3	0.0	0.2	0.0	249.0	2.3	0.0	0.7
InitQueuDel:	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	1.00	0.00	1.00	1.00	0.00	1.00
Delay/Veh:	0.0	34.6	12.4	88.4	15.2	0.0	60.6	0.0	335.9	66.2	0.0	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:	0.0	34.6	12.4	88.4	15.2	0.0	60.6	0.0	335.9	66.2	0.0	28.0
LOS by Move:	A	C-	B	F	B	A	E	A	F	E	A	C
HCM2kAvgQ:	0	479	45	836	1128	0	13	0	44	102	0	162

Note: Queue reported is the distance per lane in feet.

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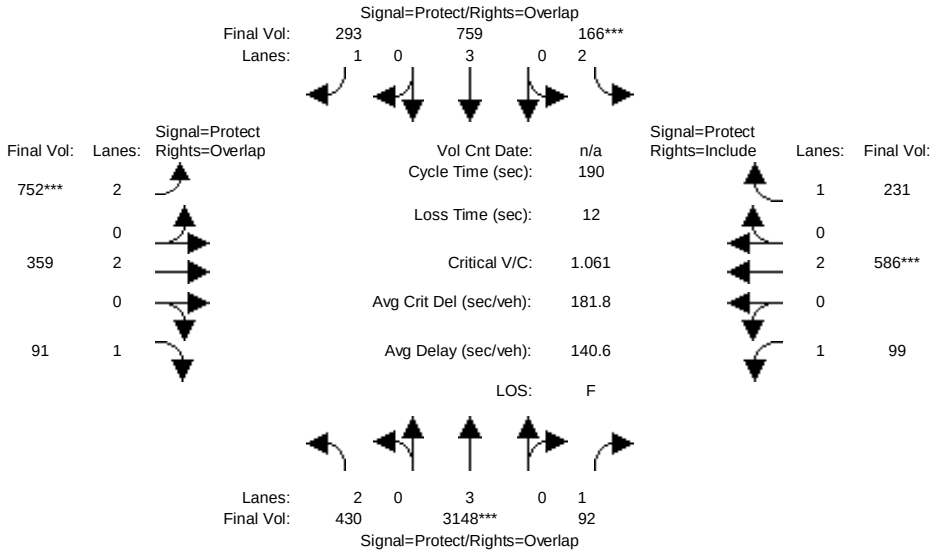
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #55: Lawrence Expressway/Bollinger Road



Street Name:	Lawrence Expressway						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	45	82	82	18	55	55	52	71	71	19	38	38
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	310	3108	92	162	716	293	752	351	87	99	559	218
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	310	3108	92	162	716	293	752	351	87	99	559	218
Added Vol:	120	40	0	4	43	0	0	8	4	0	27	13
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	430	3148	92	166	759	293	752	359	91	99	586	231
User Adj:	1.00	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:	430	3148	92	166	759	293	752	359	91	99	586	231
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	430	3148	92	166	759	293	752	359	91	99	586	231
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	430	3148	92	166	759	293	752	359	91	99	586	231
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.14	0.55	0.05	0.05	0.13	0.17	0.24	0.09	0.05	0.06	0.15	0.13
Crit Moves:		****		****			****				****	
Green Time:	42.3	77.1	95.0	16.9	51.7	100.6	48.9	66.8	109.1	17.9	35.7	35.7
Volume/Cap:	0.61	1.36	0.11	0.59	0.49	0.32	0.93	0.27	0.09	0.60	0.82	0.70
Uniform Del:	70.7	60.0	26.7	88.5	61.7	26.8	73.2	46.9	19.3	87.9	78.7	76.7
IncremntDel:	4.0	165	0.2	8.9	1.1	0.9	18.2	0.5	0.2	15.2	10.2	11.8
InitQueuDel:	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:	74.6	225	26.9	97.3	62.8	27.7	91.4	47.4	19.5	103.1	88.9	88.5
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:	74.6	225	26.9	97.3	62.8	27.7	91.4	47.4	19.5	103.1	88.9	88.5
LOS by Move:	E	F	C	F	E	C	F	D	B-	F	F	F
HCM2kAvgQ:	364	2427	77	167	321	264	761	189	65	178	476	380

Note: Queue reported is the distance per lane in feet.

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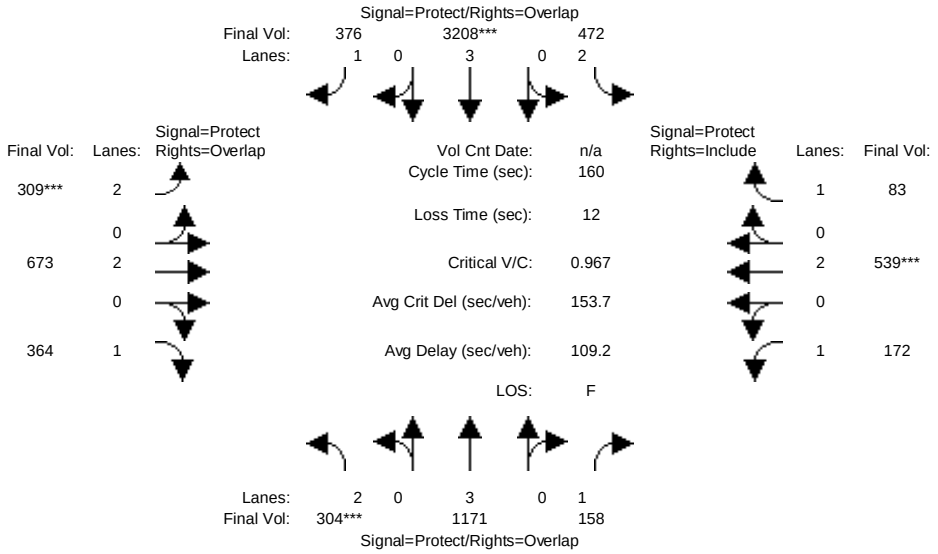
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #55: Lawrence Expressway/Bollinger Road



Street Name:	Lawrence Expressway						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	21	67	67	28	74	74	25	42	42	23	39	39
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	238	1149	158	457	3048	376	309	644	349	172	524	76
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	238	1149	158	457	3048	376	309	644	349	172	524	76
Added Vol:	66	22	0	15	160	0	0	29	15	0	15	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	304	1171	158	472	3208	376	309	673	364	172	539	83
User Adj:	1.00	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:	304	1171	158	472	3208	376	309	673	364	172	539	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	304	1171	158	472	3208	376	309	673	364	172	539	83
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	304	1171	158	472	3208	376	309	673	364	172	539	83
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.21	0.09	0.15	0.56	0.21	0.10	0.18	0.21	0.10	0.14	0.05
Crit Moves:	****				****		****				****	
Green Time:	19.5	63.0	84.0	26.3	69.8	93.0	23.3	38.5	58.0	21.1	36.3	36.3
Volume/Cap:	0.79	0.52	0.17	0.91	1.29	0.37	0.67	0.74	0.57	0.75	0.63	0.21
Uniform Del:	73.4	39.8	21.3	70.6	48.5	19.2	69.6	60.3	44.1	71.9	59.9	54.0
IncremntDel:	15.2	0.9	0.4	22.7	134	1.0	7.8	5.3	3.7	19.6	3.4	1.2
InitQueuDel:	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:	88.6	40.7	21.7	93.3	182	20.2	77.4	65.6	47.9	91.5	63.3	55.2
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:	88.6	40.7	21.7	93.3	182	20.2	77.4	65.6	47.9	91.5	63.3	55.2
LOS by Move:	F	D	C+	F	F	C+	E-	E	D	F	E	E+
HCM2kAvgQ:	279	382	112	446	2128	275	256	431	412	272	329	94

Note: Queue reported is the distance per lane in feet.

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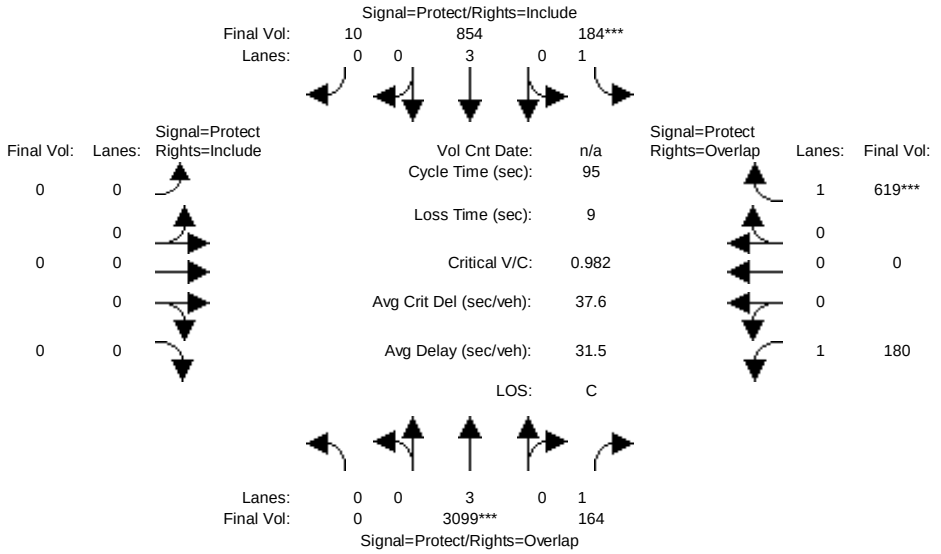
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #56: Lawrence Expressway/Doyle Road



Street Name:	Lawrence Expressway						Doyle Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	61	61	19	79	0	0	0	0	15	0	15
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	2966	164	176	815	10	0	0	0	180	0	592
Growth Adj:	1.00	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	2966	164	176	815	10	0	0	0	180	0	592
Added Vol:	0	133	0	8	39	0	0	0	0	0	0	27
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	3099	164	184	854	10	0	0	0	180	0	619
User Adj:	1.00	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	3099	164	184	854	10	0	0	0	180	0	619
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	3099	164	184	854	10	0	0	0	180	0	619
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	3099	164	184	854	10	0	0	0	180	0	619
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	2.96	0.04	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5535	65	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.54	0.09	0.11	0.15	0.15	0.00	0.00	0.00	0.10	0.00	0.35
Crit Moves:		****		****								****
Green Time:	0.0	55.7	69.4	17.4	73.1	73.1	0.0	0.0	0.0	13.7	0.0	31.1
Volume/Cap:	0.00	0.93	0.13	0.58	0.20	0.20	0.00	0.00	0.00	0.71	0.00	1.08
Uniform Del:	0.0	19.5	4.2	38.8	3.3	3.3	0.0	0.0	0.0	42.4	0.0	35.0
IncremntDel:	0.0	5.8	0.2	7.4	0.1	0.1	0.0	0.0	0.0	15.8	0.0	61.7
InitQueuDel:	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	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	25.3	4.4	46.2	3.4	3.4	0.0	0.0	0.0	58.2	0.0	96.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	25.3	4.4	46.2	3.4	3.4	0.0	0.0	0.0	58.2	0.0	96.7
LOS by Move:	A	C	A	D	A	A	A	A	A	E+	A	F
HCM2kAvgQ:	0	860	42	163	64	64	0	0	0	186	0	807

Note: Queue reported is the distance per lane in feet.

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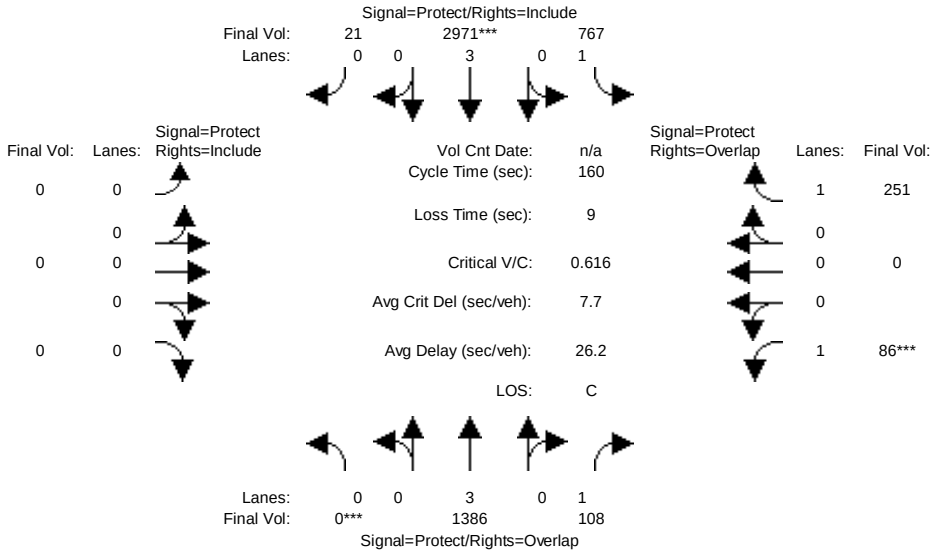
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #56: Lawrence Expressway/Doyle Road



Street Name:	Lawrence Expressway						Doyle Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	31	31	80	141	0	0	0	0	19	0	19
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1312	108	738	2826	21	0	0	0	86	0	236
Growth Adj:	1.00	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	1312	108	738	2826	21	0	0	0	86	0	236
Added Vol:	0	74	0	29	145	0	0	0	0	0	0	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1386	108	767	2971	21	0	0	0	86	0	251
User Adj:	1.00	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	1386	108	767	2971	21	0	0	0	86	0	251
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1386	108	767	2971	21	0	0	0	86	0	251
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1386	108	767	2971	21	0	0	0	86	0	251
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	2.98	0.02	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5561	39	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.24	0.06	0.44	0.53	0.53	0.00	0.00	0.00	0.05	0.00	0.14
Crit Moves:	****				****					****		
Green Time:	0.0	45.3	63.3	88.2	133	133.5	0.0	0.0	0.0	18.0	0.0	106.2
Volume/Cap:	0.00	0.86	0.16	0.80	0.64	0.64	0.00	0.00	0.00	0.44	0.00	0.22
Uniform Del:	0.0	57.4	32.9	30.3	5.0	5.0	0.0	0.0	0.0	70.0	0.0	11.2
IncremntDel:	0.0	6.2	0.5	6.7	0.7	0.7	0.0	0.0	0.0	6.9	0.0	0.4
InitQueuDel:	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	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	63.6	33.4	37.1	5.7	5.7	0.0	0.0	0.0	76.9	0.0	11.6
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	63.6	33.4	37.1	5.7	5.7	0.0	0.0	0.0	76.9	0.0	11.6
LOS by Move:	A	E	C-	D+	A	A	A	A	A	E-	A	B+
HCM2kAvgQ:	0	619	93	867	467	467	0	0	0	121	0	132

Note: Queue reported is the distance per lane in feet.

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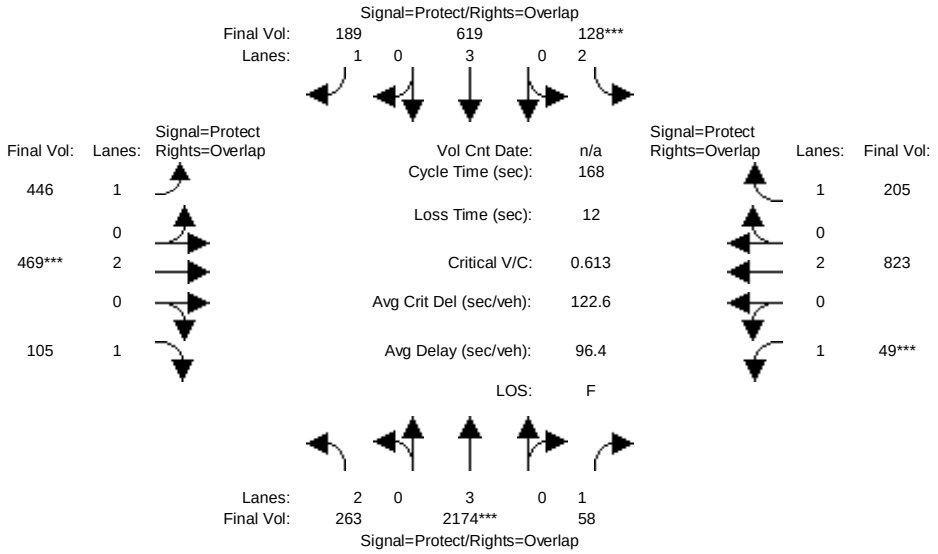
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #57: Lawrence Expressway/Prospect Road



Street Name:	Lawrence Expressway						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	22	60	60	21	56	56	48	75	75	16	43	43
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	263	2041	58	128	580	189	446	469	105	49	823	205
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	263	2041	58	128	580	189	446	469	105	49	823	205
Added Vol:	0	133	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:	263	2174	58	128	619	189	446	469	105	49	823	205
User Adj:	1.00	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:	263	2174	58	128	619	189	446	469	105	49	823	205
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	263	2174	58	128	619	189	446	469	105	49	823	205
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	263	2174	58	128	619	189	446	469	105	49	823	205
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.38	0.03	0.04	0.11	0.11	0.25	0.12	0.06	0.03	0.22	0.12
Crit Moves:		****		****				****		****		
Green Time:	20.9	54.8	69.4	19.2	53.1	96.9	43.8	68.5	89.3	14.6	39.3	58.4
Volume/Cap:	0.67	1.17	0.08	0.36	0.34	0.19	0.98	0.30	0.11	0.32	0.93	0.34
Uniform Del:	77.0	62.0	32.8	75.3	48.3	18.5	67.5	36.8	21.5	78.9	69.0	44.3
IncremntDel:	8.9	82.5	0.2	2.7	0.5	0.4	36.8	0.5	0.2	5.5	16.9	1.5
InitQueuDel:	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:	85.9	145	33.0	78.0	48.8	18.9	104.2	37.3	21.7	84.4	85.9	45.8
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:	85.9	145	33.0	78.0	48.8	18.9	104.2	37.3	21.7	84.4	85.9	45.8
LOS by Move:	F	F	C-	E-	D	B-	F	D+	C+	F	F	D
HCM2kAvgQ:	237	1379	51	105	215	130	791	213	76	75	650	223

Note: Queue reported is the distance per lane in feet.

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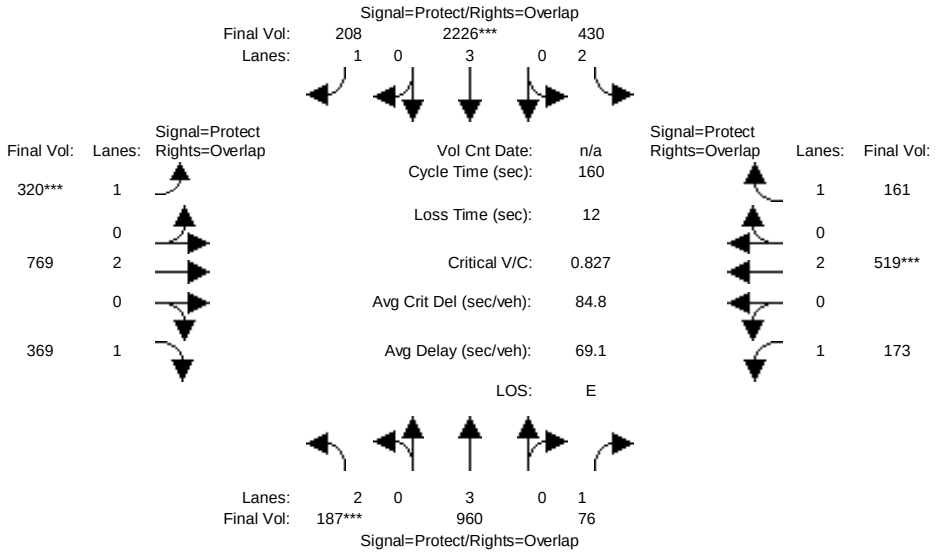
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #57: Lawrence Expressway/Prospect Road



Street Name:	Lawrence Expressway						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	20	49	49	34	62	62	38	52	52	26	39	39
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	187	886	76	430	2081	208	320	769	369	173	519	161
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	187	886	76	430	2081	208	320	769	369	173	519	161
Added Vol:	0	74	0	0	145	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	187	960	76	430	2226	208	320	769	369	173	519	161
User Adj:	1.00	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:	187	960	76	430	2226	208	320	769	369	173	519	161
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	187	960	76	430	2226	208	320	769	369	173	519	161
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	187	960	76	430	2226	208	320	769	369	173	519	161
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.17	0.04	0.14	0.39	0.12	0.18	0.20	0.21	0.10	0.14	0.09
Crit Moves:	****				****		****				****	
Green Time:	18.5	45.9	69.6	31.8	59.2	94.3	35.1	47.5	66.0	23.7	36.1	67.9
Volume/Cap:	0.51	0.59	0.10	0.69	1.06	0.20	0.83	0.68	0.51	0.67	0.61	0.22
Uniform Del:	71.9	52.9	28.9	64.3	54.5	16.5	64.5	53.6	37.9	69.6	60.1	31.6
IncremntDel:	5.1	1.6	0.3	6.0	36.2	0.4	18.7	3.3	2.6	12.8	3.2	0.7
InitQueuDel:	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:	77.0	54.5	29.1	70.3	90.7	17.0	83.1	57.0	40.4	82.4	63.3	32.2
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:	77.0	54.5	29.1	70.3	90.7	17.0	83.1	57.0	40.4	82.4	63.3	32.2
LOS by Move:	E-	D-	C	E	F	B	F	E+	D	F	E	C-
HCM2kAvgQ:	152	364	61	337	1201	133	487	457	384	257	316	140

Note: Queue reported is the distance per lane in feet.

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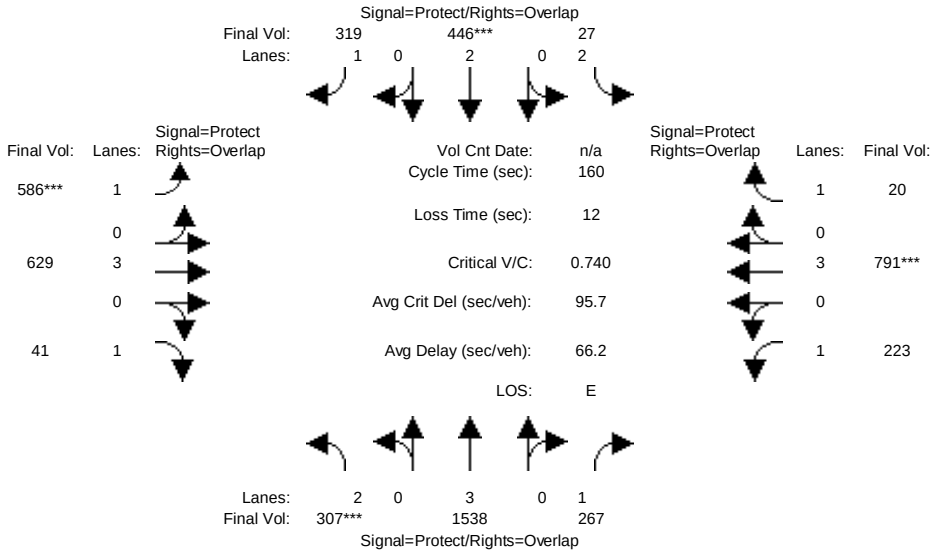
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #58: Lawrence Expressway/Saratoga Avenue



Street Name:	Lawrence Expressway						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	14	61	61	9	55	55	51	61	61	29	39	39
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	307	1525	267	27	442	284	466	629	41	223	791	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	307	1525	267	27	442	284	466	629	41	223	791	20
Added Vol:	0	13	0	0	4	35	120	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	307	1538	267	27	446	319	586	629	41	223	791	20
User Adj:	1.00	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:	307	1538	267	27	446	319	586	629	41	223	791	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	307	1538	267	27	446	319	586	629	41	223	791	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	307	1538	267	27	446	319	586	629	41	223	791	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	5700	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.27	0.15	0.01	0.12	0.18	0.33	0.11	0.02	0.13	0.14	0.01
Crit Moves:	****				****		****				****	
Green Time:	13.8	56.6	83.7	8.4	51.2	98.7	47.6	56.8	70.7	27.0	36.3	44.6
Volume/Cap:	1.13	0.76	0.29	0.16	0.37	0.30	1.13	0.31	0.05	0.75	0.61	0.04
Uniform Del:	78.6	49.1	23.1	77.9	45.1	15.4	60.4	40.2	27.5	68.1	59.7	45.2
IncremntDel:	93.0	2.8	0.8	2.1	0.9	0.7	79.2	0.4	0.1	16.3	2.2	0.2
InitQueuDel:	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:	171.6	51.9	23.9	80.1	45.9	16.1	139.6	40.6	27.6	84.4	61.9	45.4
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:	171.6	51.9	23.9	80.1	45.9	16.1	139.6	40.6	27.6	84.4	61.9	45.4
LOS by Move:	F	D-	C	F	D	B	F	D	C	F	E	D
HCM2kAvgQ:	378	612	205	23	220	204	1121	193	32	337	320	20

Note: Queue reported is the distance per lane in feet.

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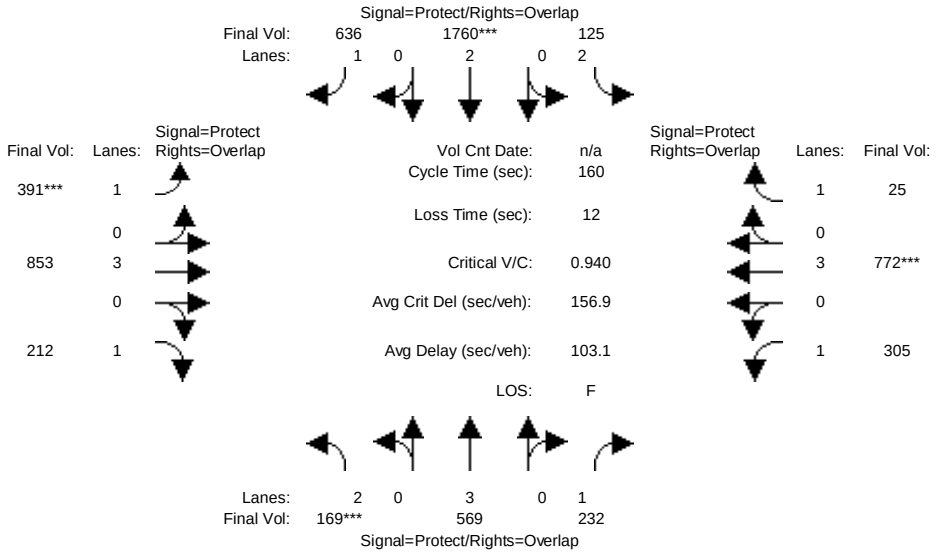
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #58: Lawrence Expressway/Saratoga Avenue



Street Name:	Lawrence Expressway						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	16	56	56	20	60	60	41	46	46	38	46	46
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	169	562	232	125	1745	505	325	853	212	305	772	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	169	562	232	125	1745	505	325	853	212	305	772	25
Added Vol:	0	7	0	0	15	131	66	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	169	569	232	125	1760	636	391	853	212	305	772	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:	169	569	232	125	1760	636	391	853	212	305	772	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	569	232	125	1760	636	391	853	212	305	772	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:	169	569	232	125	1760	636	391	853	212	305	772	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	5700	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.10	0.13	0.04	0.46	0.36	0.22	0.15	0.12	0.17	0.14	0.01
Crit Moves:	****				****		****				****	
Green Time:	14.6	51.2	87.2	18.3	54.9	92.3	37.5	43.6	58.2	36.0	42.1	60.3
Volume/Cap:	0.59	0.31	0.24	0.35	1.35	0.63	0.95	0.55	0.33	0.77	0.52	0.04
Uniform Del:	76.3	44.9	20.9	71.5	57.5	24.6	66.1	54.5	40.3	63.7	55.0	34.4
IncremntDel:	8.5	0.4	0.6	2.6	163	3.0	34.2	1.4	1.4	13.9	1.3	0.1
InitQueuDel:	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:	84.8	45.4	21.5	74.1	221	27.6	100.3	55.9	41.7	77.5	56.3	34.5
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:	84.8	45.4	21.5	74.1	221	27.6	100.3	55.9	41.7	77.5	56.3	34.5
LOS by Move:	F	D	C+	E	F	C	F	E+	D	E-	E+	C-
HCM2kAvgQ:	150	185	169	97	1870	599	661	325	215	448	292	22

Note: Queue reported is the distance per lane in feet.

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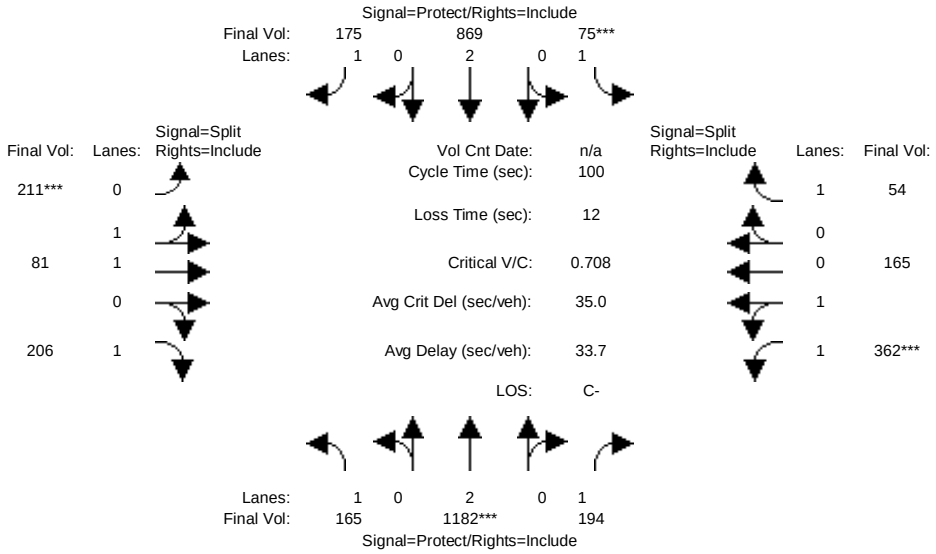
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #59: Saratoga Avenue/Cox Avenue



Street Name:	Cox Avenue						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	165	1062	194	75	834	175	211	81	206	362	165	54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	165	1062	194	75	834	175	211	81	206	362	165	54
Added Vol:	0	120	0	0	35	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	165	1182	194	75	869	175	211	81	206	362	165	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:	165	1182	194	75	869	175	211	81	206	362	165	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	165	1182	194	75	869	175	211	81	206	362	165	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:	165	1182	194	75	869	175	211	81	206	362	165	54
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.38	0.62	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	1900	1750	2438	1111	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.31	0.11	0.04	0.23	0.10	0.12	0.04	0.12	0.15	0.15	0.03
Crit Moves:		****		****			****			****		
Green Time:	14.7	43.4	43.4	7.0	35.7	35.7	16.8	16.8	16.8	20.7	20.7	20.7
Volume/Cap:	0.64	0.72	0.26	0.61	0.64	0.28	0.72	0.25	0.70	0.72	0.72	0.15
Uniform Del:	40.1	23.2	18.0	45.2	26.8	23.0	39.3	36.1	39.2	36.9	36.9	32.4
IncremntDel:	11.6	2.7	0.8	20.7	2.3	1.1	10.3	0.5	13.0	5.9	5.9	0.9
InitQueuDel:	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:	51.8	25.9	18.8	65.9	29.1	24.1	49.6	36.6	52.2	42.8	42.8	33.3
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:	51.8	25.9	18.8	65.9	29.1	24.1	49.6	36.6	52.2	42.8	42.8	33.3
LOS by Move:	D-	C	B-	E	C	C	D	D+	D-	D	D	C-
HCM2kAvgQ:	157	395	102	88	294	104	204	57	196	237	237	38

Note: Queue reported is the distance per lane in feet.

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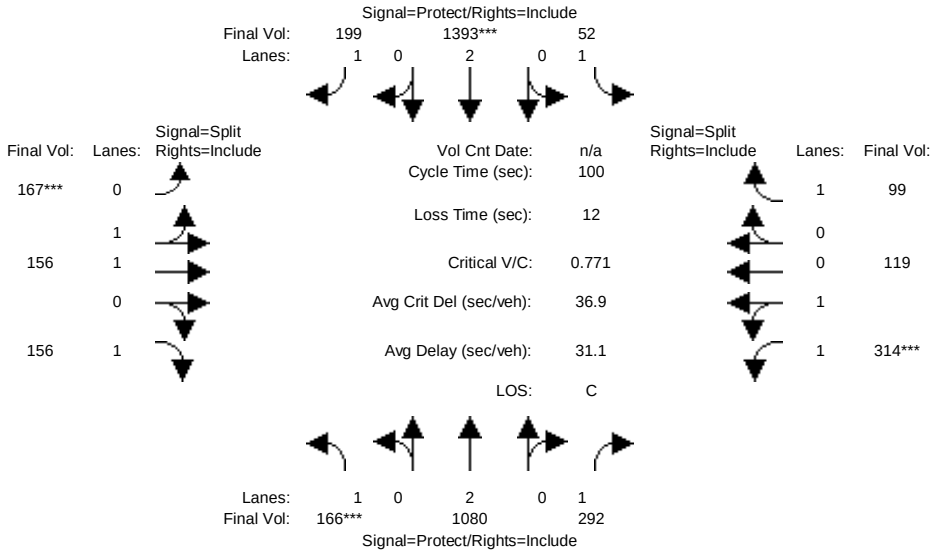
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #59: Saratoga Avenue/Cox Avenue



Street Name:	Cox Avenue						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	166	1014	292	52	1262	199	167	156	156	314	119	99
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	166	1014	292	52	1262	199	167	156	156	314	119	99
Added Vol:	0	66	0	0	131	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	166	1080	292	52	1393	199	167	156	156	314	119	99
User Adj:	1.00	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:	166	1080	292	52	1393	199	167	156	156	314	119	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	166	1080	292	52	1393	199	167	156	156	314	119	99
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	166	1080	292	52	1393	199	167	156	156	314	119	99
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.46	0.54	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	1900	1750	2574	976	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.28	0.17	0.03	0.37	0.11	0.10	0.08	0.09	0.12	0.12	0.06
Crit Moves:	****				****		****			****		
Green Time:	12.3	48.0	48.0	11.8	47.5	47.5	12.4	12.4	12.4	15.8	15.8	15.8
Volume/Cap:	0.77	0.59	0.35	0.25	0.77	0.24	0.77	0.66	0.72	0.77	0.77	0.36
Uniform Del:	42.5	18.9	16.2	40.1	21.7	15.5	42.4	41.8	42.2	40.4	40.4	37.6
IncremntDel:	23.1	1.4	1.1	2.9	3.3	0.7	12.9	7.0	18.7	9.9	9.9	3.6
InitQueuDel:	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:	65.5	20.3	17.4	43.0	25.0	16.2	55.3	48.8	60.8	50.2	50.2	41.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	65.5	20.3	17.4	43.0	25.0	16.2	55.3	48.8	60.8	50.2	50.2	41.1
LOS by Move:	E	C+	B	D	C	B	E+	D	E	D	D	D
HCM2kAvgQ:	183	308	151	44	476	97	184	146	165	219	219	80

Note: Queue reported is the distance per lane in feet.

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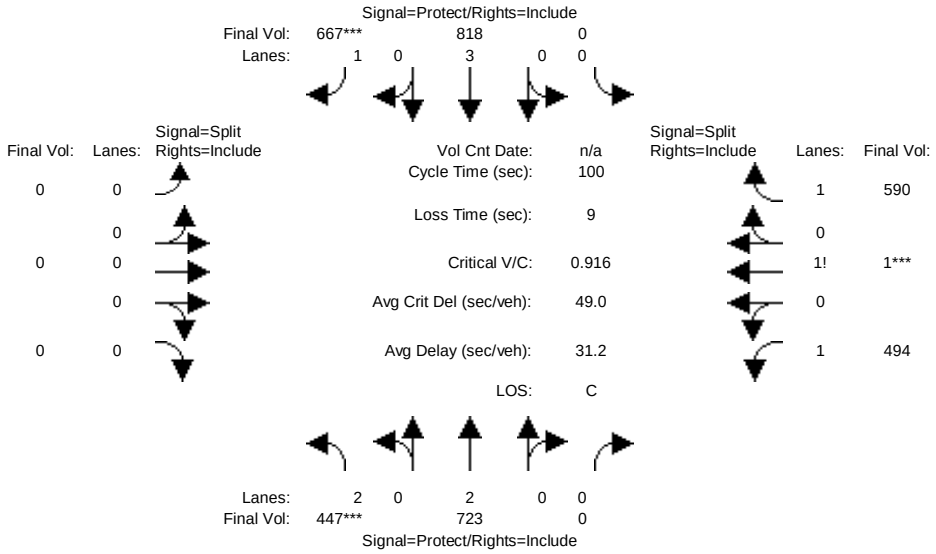
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #60: Saratoga Avenue/SR 85 Ramps North



Street Name:	Saratoga Avenue						SR 85 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	447	710	0	0	783	667	0	0	0	494	1	483
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	447	710	0	0	783	667	0	0	0	494	1	483
Added Vol:	0	13	0	0	35	0	0	0	0	0	0	107
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	447	723	0	0	818	667	0	0	0	494	1	590
User Adj:	1.00	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:	447	723	0	0	818	667	0	0	0	494	1	590
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	447	723	0	0	818	667	0	0	0	494	1	590
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	447	723	0	0	818	667	0	0	0	494	1	590
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	2.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.45	0.01	1.54
Final Sat.:	3150	3800	0	0	5700	1750	0	0	0	2546	3	2701
Capacity Analysis Module:												
Vol/Sat:	0.14	0.19	0.00	0.00	0.14	0.38	0.00	0.00	0.00	0.19	0.31	0.22
Crit Moves:	****					****					****	
Green Time:	15.5	57.1	0.0	0.0	41.6	41.6	0.0	0.0	0.0	33.9	33.9	33.9
Volume/Cap:	0.92	0.33	0.00	0.00	0.34	0.92	0.00	0.00	0.00	0.57	0.92	0.64
Uniform Del:	41.6	11.4	0.0	0.0	19.9	27.5	0.0	0.0	0.0	27.1	31.7	28.0
IncremntDel:	24.4	0.4	0.0	0.0	0.4	18.2	0.0	0.0	0.0	1.3	12.4	1.9
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	66.0	11.8	0.0	0.0	20.3	45.7	0.0	0.0	0.0	28.4	44.1	29.9
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:	66.0	11.8	0.0	0.0	20.3	45.7	0.0	0.0	0.0	28.4	44.1	29.9
LOS by Move:	E	B+	A	A	C+	D	A	A	A	C	D	C
HCM2kAvgQ:	254	148	0	0	142	630	0	0	0	242	538	287

Note: Queue reported is the distance per lane in feet.

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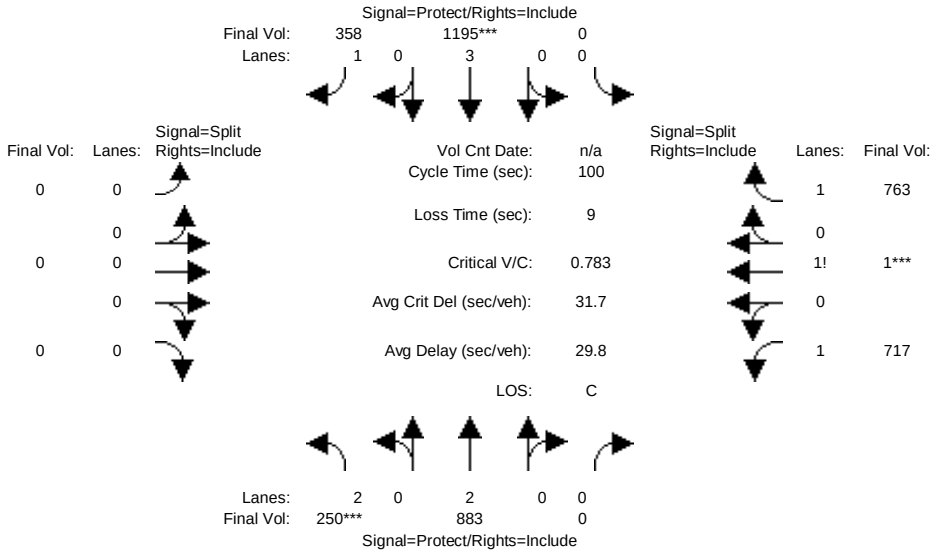
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #60: Saratoga Avenue/SR 85 Ramps North



Street Name:	Saratoga Avenue						SR 85 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	250	876	0	0	1064	358	0	0	0	717	1	704
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	250	876	0	0	1064	358	0	0	0	717	1	704
Added Vol:	0	7	0	0	131	0	0	0	0	0	0	59
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	250	883	0	0	1195	358	0	0	0	717	1	763
User Adj:	1.00	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:	250	883	0	0	1195	358	0	0	0	717	1	763
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	250	883	0	0	1195	358	0	0	0	717	1	763
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	250	883	0	0	1195	358	0	0	0	717	1	763
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	2.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.48	0.01	1.51
Final Sat.:	3150	3800	0	0	5700	1750	0	0	0	2597	2	2651
Capacity Analysis Module:												
Vol/Sat:	0.08	0.23	0.00	0.00	0.21	0.20	0.00	0.00	0.00	0.28	0.42	0.29
Crit Moves:	****				****						****	
Green Time:	10.1	36.9	0.0	0.0	26.8	26.8	0.0	0.0	0.0	54.1	54.1	54.1
Volume/Cap:	0.78	0.63	0.00	0.00	0.78	0.76	0.00	0.00	0.00	0.51	0.78	0.53
Uniform Del:	43.9	25.9	0.0	0.0	33.9	33.7	0.0	0.0	0.0	14.6	18.3	14.8
IncremntDel:	17.3	2.2	0.0	0.0	4.1	11.2	0.0	0.0	0.0	0.6	3.3	0.7
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	61.1	28.1	0.0	0.0	38.0	44.9	0.0	0.0	0.0	15.2	21.6	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:	61.1	28.1	0.0	0.0	38.0	44.9	0.0	0.0	0.0	15.2	21.6	15.5
LOS by Move:	E	C	A	A	D+	D	A	A	A	B	C+	B
HCM2kAvgQ:	129	287	0	0	330	317	0	0	0	257	526	273

Note: Queue reported is the distance per lane in feet.

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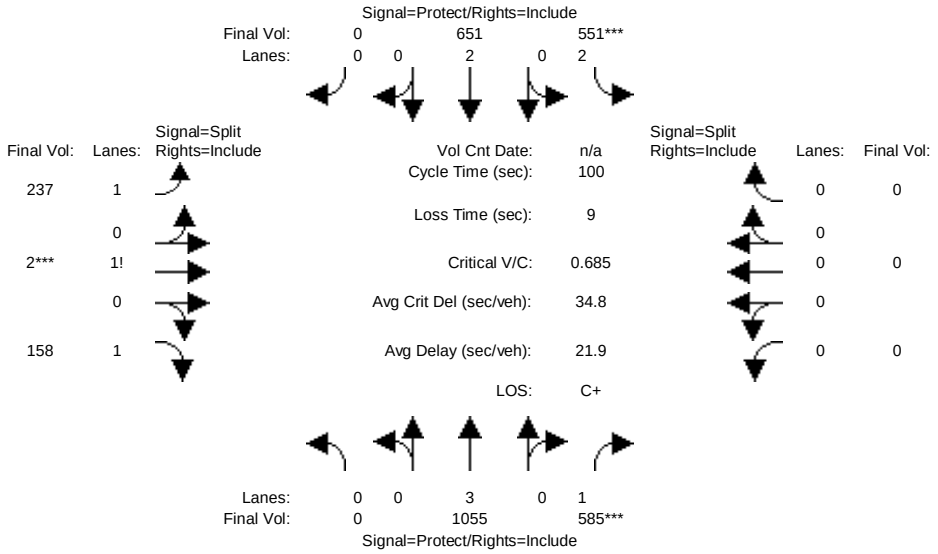
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #61: Saratoga Avenue/SR 85 Ramps South



Street Name:	Saratoga Avenue						SR 85 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1042	585	520	647	0	237	2	158	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1042	585	520	647	0	237	2	158	0	0	0
Added Vol:	0	13	0	31	4	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1055	585	551	651	0	237	2	158	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	1055	585	551	651	0	237	2	158	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1055	585	551	651	0	237	2	158	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	1055	585	551	651	0	237	2	158	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	1.59	0.01	1.40	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	2789	18	2443	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.19	0.33	0.17	0.17	0.00	0.08	0.11	0.06	0.00	0.00	0.00
Crit Moves:			****	****				****				
Green Time:	0.0	48.8	48.8	25.5	74.4	0.0	16.6	16.6	16.6	0.0	0.0	0.0
Volume/Cap:	0.00	0.38	0.68	0.68	0.23	0.00	0.51	0.68	0.39	0.00	0.00	0.00
Uniform Del:	0.0	16.1	19.7	33.6	4.0	0.0	38.0	39.2	37.1	0.0	0.0	0.0
IncremntDel:	0.0	0.4	4.4	4.7	0.2	0.0	2.4	6.5	1.1	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	16.5	24.1	38.3	4.2	0.0	40.4	45.7	38.3	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:	0.0	16.5	24.1	38.3	4.2	0.0	40.4	45.7	38.3	0.0	0.0	0.0
LOS by Move:	A	B	C	D+	A	A	D	D	D+	A	A	A
HCM2kAvgQ:	0	169	391	244	81	0	127	189	92	0	0	0

Note: Queue reported is the distance per lane in feet.

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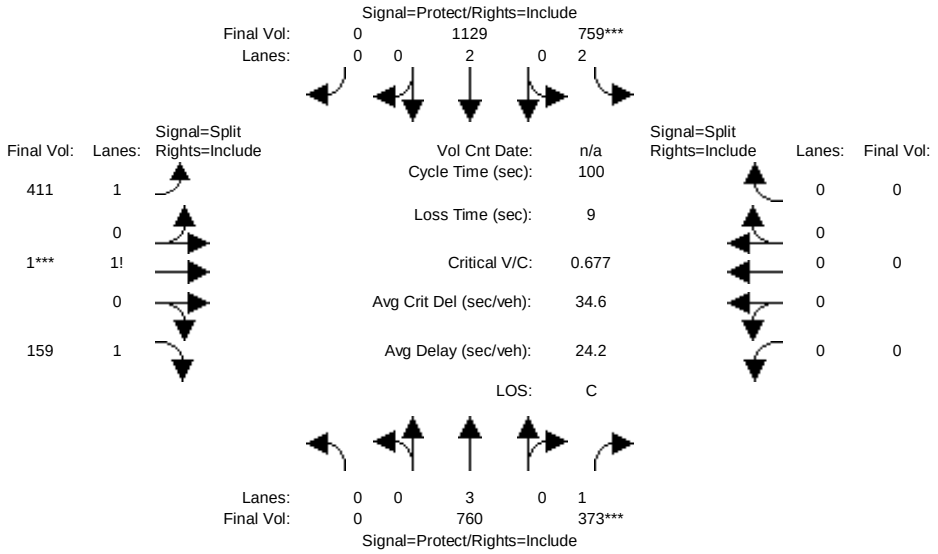
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #61: Saratoga Avenue/SR 85 Ramps South



Street Name:	Saratoga Avenue						SR 85 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	753	373	643	1114	0	411	1	159	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	753	373	643	1114	0	411	1	159	0	0	0
Added Vol:	0	7	0	116	15	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	760	373	759	1129	0	411	1	159	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	760	373	759	1129	0	411	1	159	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	760	373	759	1129	0	411	1	159	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	760	373	759	1129	0	411	1	159	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.93	0.95	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	1.71	0.01	1.28	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	3045	6	2241	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.13	0.21	0.24	0.30	0.00	0.13	0.16	0.07	0.00	0.00	0.00
Crit Moves:			****	****				****				
Green Time:	0.0	31.5	31.5	35.6	67.1	0.0	23.9	23.9	23.9	0.0	0.0	0.0
Volume/Cap:	0.00	0.42	0.68	0.68	0.44	0.00	0.56	0.68	0.30	0.00	0.00	0.00
Uniform Del:	0.0	27.1	29.8	27.3	7.7	0.0	33.5	34.5	31.2	0.0	0.0	0.0
IncremntDel:	0.0	0.7	6.5	3.3	0.6	0.0	2.3	4.3	0.4	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	27.8	36.4	30.6	8.3	0.0	35.8	38.9	31.6	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:	0.0	27.8	36.4	30.6	8.3	0.0	35.8	38.9	31.6	0.0	0.0	0.0
LOS by Move:	A	C	D+	C	A	A	D+	D+	C	A	A	A
HCM2kAvgQ:	0	157	293	295	199	0	188	241	87	0	0	0

Note: Queue reported is the distance per lane in feet.

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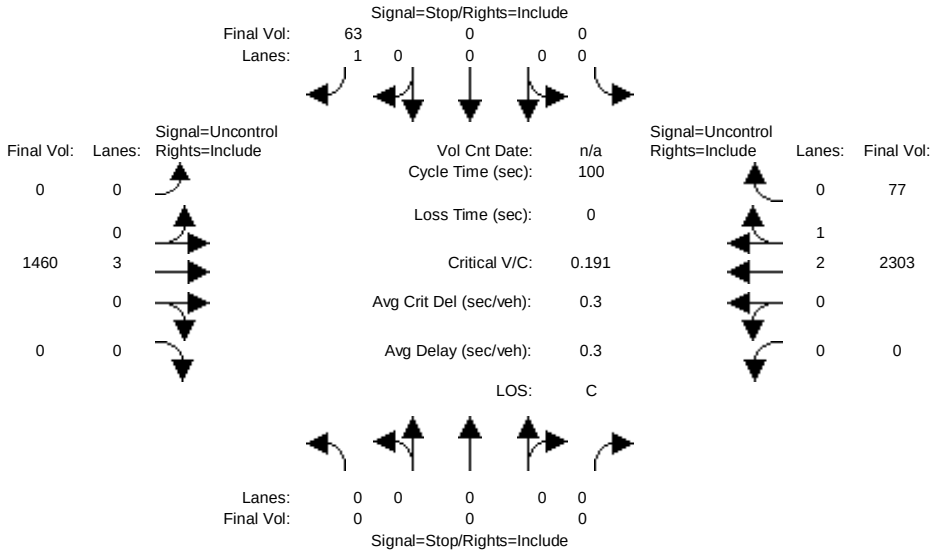
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #62: Stevens Creek Boulevard/Vallco Driveway 5



Street Name:	Vallco Driveway 5						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	0	0	0	0	0	63	0	1460	0	0	2303	77
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	63	0	1460	0	0	2303	77
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	63	0	1460	0	0	2303	77
User Adj:	1.00	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	0	0	63	0	1460	0	0	2303	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	63	0	1460	0	0	2303	77
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	806	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	329	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	329	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.19	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	17.4	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	18.5	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	C	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			18.5			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	63	0	1460	0	0	2303	77
ApproachDel:	xxxxxx			18.5			xxxxxx			xxxxxx		

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=63]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=3903]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	63	0	1460	0	0	2303	77

Major Street Volume: 3840
Minor Approach Volume: 63
Minor Approach Volume Threshold: -179 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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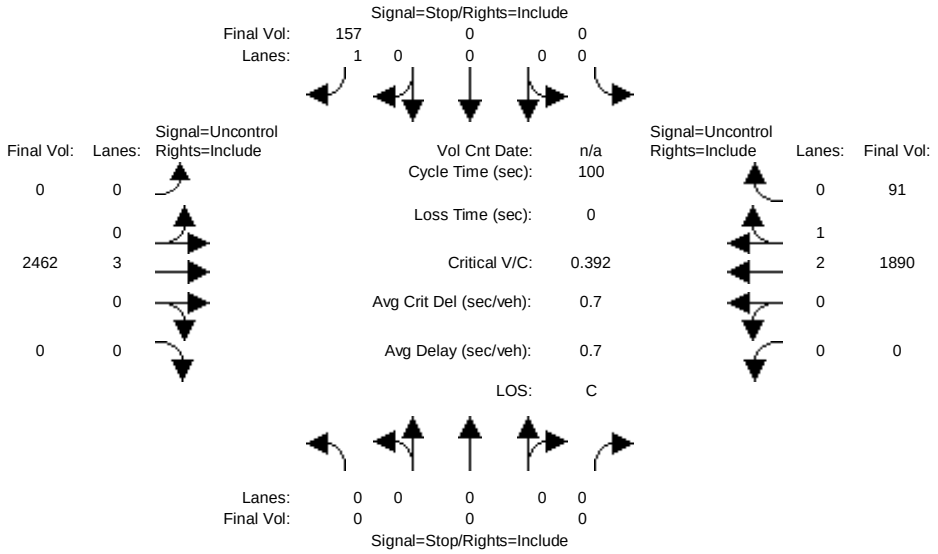
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #62: Stevens Creek Boulevard/Vallco Driveway 5



Street Name:	Vallco Driveway 5						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	0	0	0	0	0	157	0	2462	0	0	1890	91
Growth Adj:	1.00	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	0	0	157	0	2462	0	0	1890	91
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	0	0	157	0	2462	0	0	1890	91
User Adj:	1.00	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	0	0	157	0	2462	0	0	1890	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	157	0	2462	0	0	1890	91
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	676	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	401	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	401	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.39	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	45.6	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	19.6	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	C	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			19.6			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	0 0	0	0 0	0 0	1	0 0	3 0	0	0 0	2 1	0
Initial Vol:	0	0	0	0	0	157	0	2462	0	0	1890	91
ApproachDel:	xxxxxx			19.6			xxxxxx			xxxxxx		

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.9]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=157]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=4600]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	0 0	0	0 0	0 0	1	0 0	3 0	0	0 0	2 1	0
Initial Vol:	0	0	0	0	0	157	0	2462	0	0	1890	91

Major Street Volume: 4443
Minor Approach Volume: 157
Minor Approach Volume Threshold: -229 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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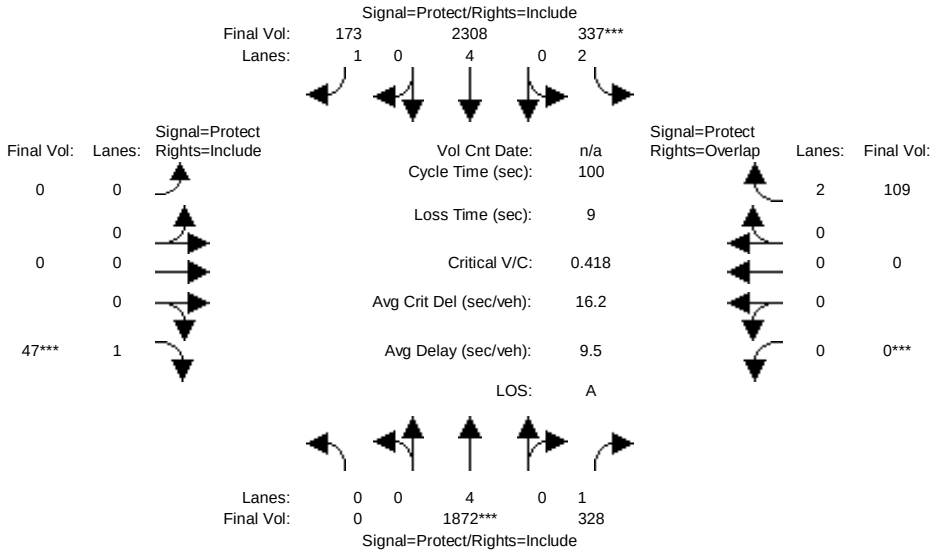
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #63: Wolfe Road/Vallco Driveway 1



Street Name:	Wolfe Road						Vallco Driveway 1					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	10	0	0	10	0	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1872	328	337	2308	173	0	0	47	0	0	109
Growth Adj:	1.00	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	1872	328	337	2308	173	0	0	47	0	0	109
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	1872	328	337	2308	173	0	0	47	0	0	109
User Adj:	1.00	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	1872	328	337	2308	173	0	0	47	0	0	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1872	328	337	2308	173	0	0	47	0	0	109
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1872	328	337	2308	173	0	0	47	0	0	109
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.83
Lanes:	0.00	4.00	1.00	2.00	4.00	1.00	0.00	0.00	1.00	0.00	0.00	2.00
Final Sat.:	0	7600	1750	3150	7600	1750	0	0	1750	0	0	3150
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.19	0.11	0.30	0.10	0.00	0.00	0.03	0.00	0.00	0.03
Crit Moves:		****		****					****	****		
Green Time:	0.0	56.5	56.5	24.5	81.0	81.0	0.0	0.0	10.0	0.0	0.0	34.5
Volume/Cap:	0.00	0.44	0.33	0.44	0.37	0.12	0.00	0.00	0.27	0.00	0.00	0.10
Uniform Del:	0.0	12.6	11.7	31.9	2.6	2.0	0.0	0.0	41.6	0.0	0.0	22.2
IncremntDel:	0.0	0.1	0.2	0.4	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0
InitQueuDel:	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	1.00	0.00	0.00	1.00	0.00	0.00	1.00
Delay/Veh:	0.0	12.6	11.9	32.3	2.6	2.0	0.0	0.0	42.4	0.0	0.0	22.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	12.6	11.9	32.3	2.6	2.0	0.0	0.0	42.4	0.0	0.0	22.2
LOS by Move:	A	B	B+	C-	A	A	A	A	D	A	A	C+
HCM2kAvgQ:	0	189	123	118	124	29	0	0	39	0	0	28

Note: Queue reported is the distance per lane in feet.

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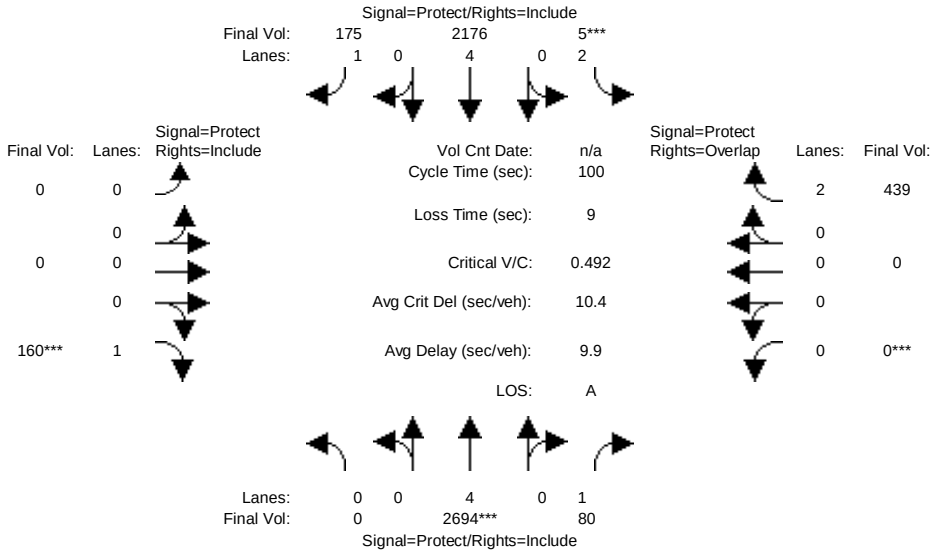
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #63: Wolfe Road/Vallco Driveway 1



Street Name:	Wolfe Road						Vallco Driveway 1					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	10	0	0	10	0	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	2694	80	5	2176	175	0	0	160	0	0	439
Growth Adj:	1.00	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	2694	80	5	2176	175	0	0	160	0	0	439
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	2694	80	5	2176	175	0	0	160	0	0	439
User Adj:	1.00	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	2694	80	5	2176	175	0	0	160	0	0	439
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2694	80	5	2176	175	0	0	160	0	0	439
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	2694	80	5	2176	175	0	0	160	0	0	439
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.83
Lanes:	0.00	4.00	1.00	2.00	4.00	1.00	0.00	0.00	1.00	0.00	0.00	2.00
Final Sat.:	0	7600	1750	3150	7600	1750	0	0	1750	0	0	3150
Capacity Analysis Module:												
Vol/Sat:	0.00	0.35	0.05	0.00	0.29	0.10	0.00	0.00	0.09	0.00	0.00	0.14
Crit Moves:		****		****					****	****		
Green Time:	0.0	66.8	66.8	7.0	73.8	73.8	0.0	0.0	17.2	0.0	0.0	24.2
Volume/Cap:	0.00	0.53	0.07	0.02	0.39	0.14	0.00	0.00	0.53	0.00	0.00	0.58
Uniform Del:	0.0	8.5	5.8	43.3	4.8	3.8	0.0	0.0	37.7	0.0	0.0	33.4
IncremntDel:	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.1
InitQueuDel:	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	1.00	0.00	0.00	1.00	0.00	0.00	1.00
Delay/Veh:	0.0	8.7	5.8	43.4	4.9	3.9	0.0	0.0	39.5	0.0	0.0	34.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	8.7	5.8	43.4	4.9	3.9	0.0	0.0	39.5	0.0	0.0	34.4
LOS by Move:	A	A	A	D	A	A	A	A	D	A	A	C-
HCM2kAvgQ:	0	258	20	2	155	39	0	0	128	0	0	166

Note: Queue reported is the distance per lane in feet.

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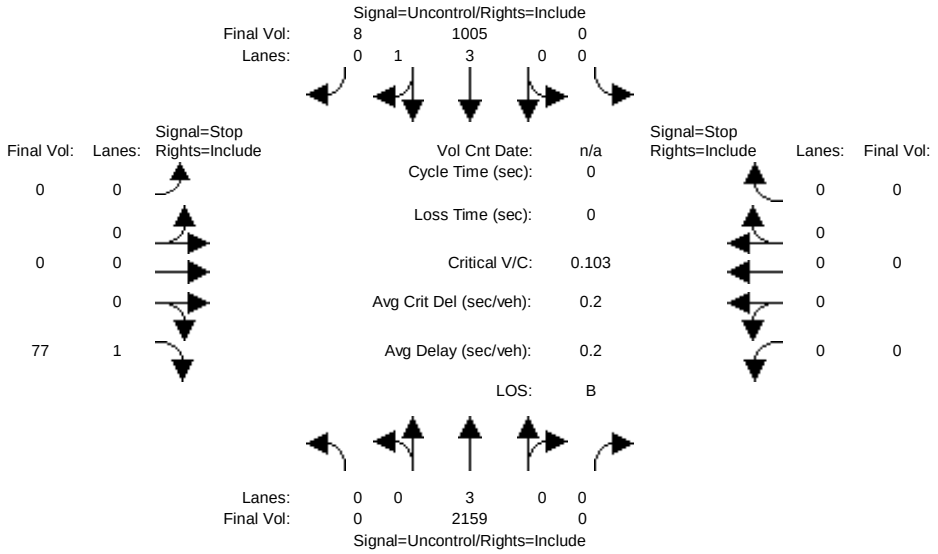
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #65: Wolfe Road/Vallco Driveway 3



Street Name:	Wolfe Road						Vallco Driveway 3					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	2159	0	0	1005	8	0	0	77	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2159	0	0	1005	8	0	0	77	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2159	0	0	1005	8	0	0	77	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	2159	0	0	1005	8	0	0	77	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	2159	0	0	1005	8	0	0	77	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	255	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	750	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	750	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.10	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	8.5	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	10.3	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			10.3			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 3	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0 2159	0		0 1005	8		0	0	77	0	0	0
ApproachDel:	xxxxxx			xxxxxx			10.3			xxxxxx		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=77]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=3249]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 3	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0 2159	0		0 1005	8		0	0	77	0	0	0

Major Street Volume: 3172
Minor Approach Volume: 77
Minor Approach Volume Threshold: -113 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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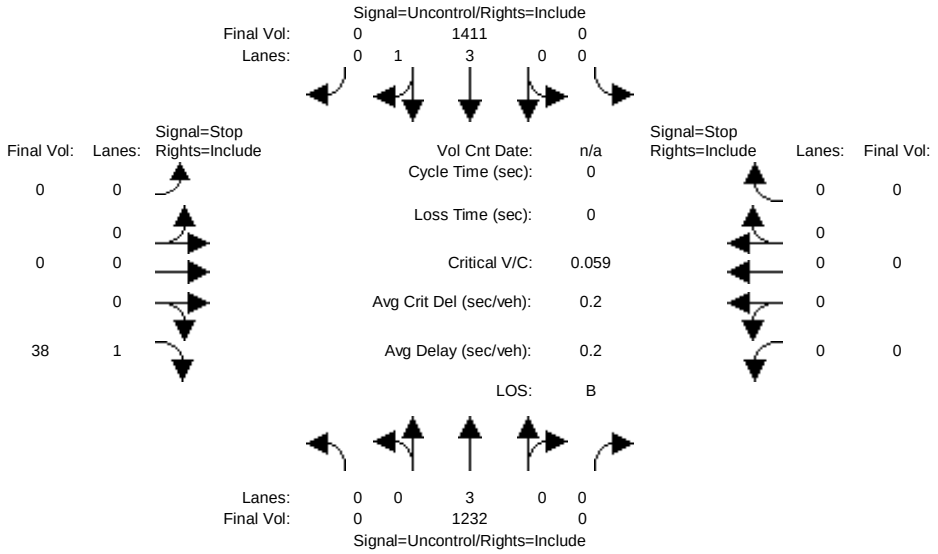
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #65: Wolfe Road/Vallco Driveway 3



Street Name:	Wolfe Road						Vallco Driveway 3					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	1232	0	0	1411	0	0	0	38	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1232	0	0	1411	0	0	0	38	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1232	0	0	1411	0	0	0	38	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	1232	0	0	1411	0	0	0	38	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1232	0	0	1411	0	0	0	38	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	353	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	649	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	649	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.06	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	4.7	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	10.9	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			10.9			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 3	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0 1232	0		0 1411	0		0	0	38	0	0	0
ApproachDel:	xxxxxx			xxxxxx			10.9			xxxxxx		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=38]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=2681]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 3	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0 1232	0		0 1411	0		0	0	38	0	0	0

Major Street Volume: 2643
Minor Approach Volume: 38
Minor Approach Volume Threshold: -50 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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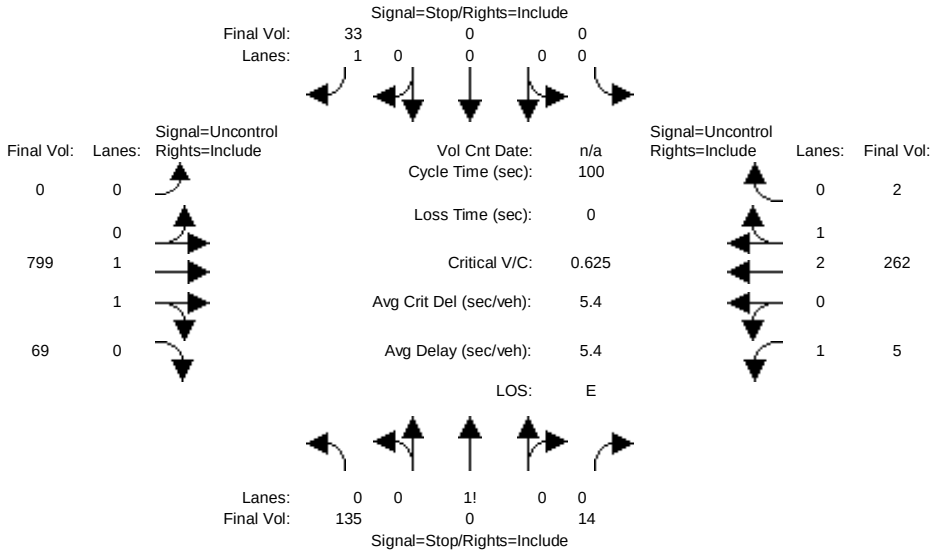
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #66: Vallco Parkway/Vallco Driveway 4



Street Name:	Vallco Driveway 4						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	135	0	14	0	0	33	0	799	69	5	262	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	135	0	14	0	0	33	0	799	69	5	262	2
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:	135	0	14	0	0	33	0	799	69	5	262	2
User Adj:	1.00	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:	135	0	14	0	0	33	0	799	69	5	262	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	135	0	14	0	0	33	0	799	69	5	262	2
Critical Gap Module:												
Critical Gp:	7.5	6.5	6.9	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	931	1108	434	xxxx	xxxx	88	xxxx	xxxx	xxxxx	868	xxxx	xxxxx
Potent Cap.:	225	212	576	xxxx	xxxx	959	xxxx	xxxx	xxxxx	785	xxxx	xxxxx
Move Cap.:	216	210	576	xxxx	xxxx	959	xxxx	xxxx	xxxxx	785	xxxx	xxxxx
Volume/Cap:	0.62	0.00	0.02	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	2.7	xxxx	xxxx	xxxxx	0.5	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	8.9	xxxxx	xxxx	xxxxx	9.6	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	A	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	229	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	4.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	45.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	E	*	*	*	*	*	*	*	*	*	*
ApproachDel:		45.7			8.9			xxxxx			xxxxx	
ApproachLOS:		E			A			*			*	

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 1!	0	0	0 0	0	0	1 0	0 1	0	1 0	2 1	0
Initial Vol:	135	0	14	0	0	33	0	799	69	5	262	2
ApproachDel:	45.7			8.9			xxxxxx			xxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.9]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=149]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1319]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=33]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1319]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 1!	0	0	0 0	0	0	1 0	0 1	0	1 0	2 1	0
Initial Vol:	135	0	14	0	0	33	0	799	69	5	262	2

Major Street Volume: 1137
Minor Approach Volume: 149
Minor Approach Volume Threshold: 241

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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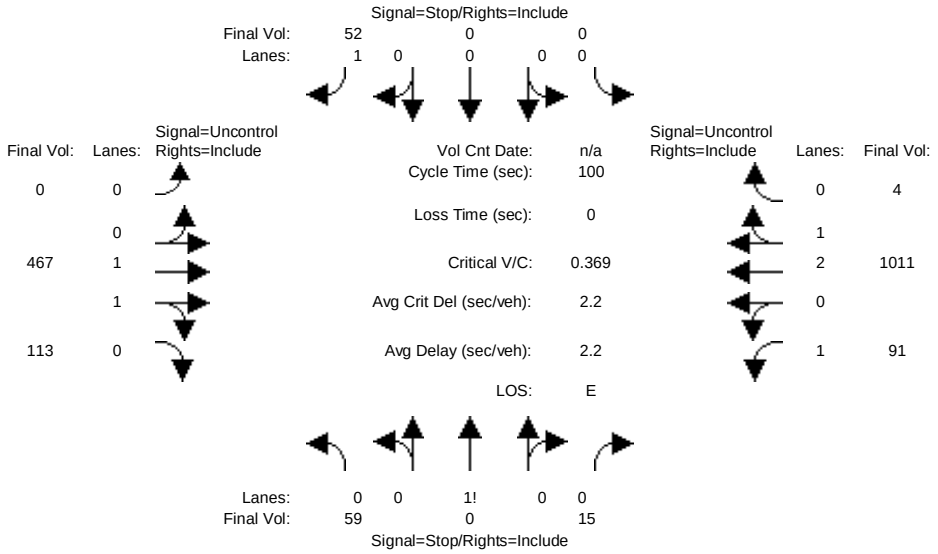
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #66: Vallco Parkway/Vallco Driveway 4



Street Name:	Vallco Driveway 4						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	59	0	15	0	0	52	0	467	113	91	1011	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:	59	0	15	0	0	52	0	467	113	91	1011	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:	59	0	15	0	0	52	0	467	113	91	1011	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:	59	0	15	0	0	52	0	467	113	91	1011	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	59	0	15	0	0	52	0	467	113	91	1011	4
Critical Gap Module:												
Critical Gp:	7.5	6.5	6.9	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1043	1721	290	xxxx	xxxx	339	xxxx	xxxx	xxxxx	580	xxxx	xxxxx
Potent Cap.:	186	90	713	xxxx	xxxx	663	xxxx	xxxx	xxxxx	1004	xxxx	xxxxx
Move Cap.:	160	82	713	xxxx	xxxx	663	xxxx	xxxx	xxxxx	1004	xxxx	xxxxx
Volume/Cap:	0.37	0.00	0.02	xxxx	xxxx	0.08	xxxx	xxxx	xxxx	0.09	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	6.4	xxxx	xxxx	xxxxx	7.5	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	10.9	xxxxx	xxxx	xxxxx	8.9	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	B	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	190	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	1.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	35.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	E	*	*	*	*	*	*	*	*	*	*
ApproachDel:		35.6			10.9			xxxxx			xxxxx	
ApproachLOS:		E			B			*			*	

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 1! 0 0			0 0 0 0 1			0 0 1 1 0			1 0 2 1 0		
Initial Vol:	59	0	15	0	0	52	0	467	113	91	1011	4
ApproachDel:	35.6			10.9			xxxxxx			xxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.7]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=74]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1812]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=52]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1812]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 1! 0 0			0 0 0 0 1			0 0 1 1 0			1 0 2 1 0		
Initial Vol:	59	0	15	0	0	52	0	467	113	91	1011	4

Major Street Volume: 1686
Minor Approach Volume: 74
Minor Approach Volume Threshold: 105

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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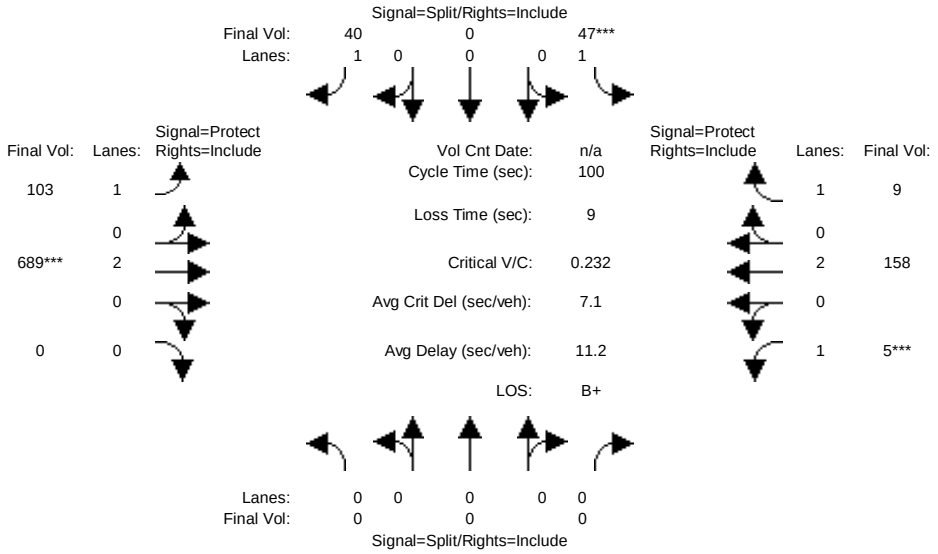
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #67: Vallco Parkway/Perimeter Road



Street Name:	Perimeter Road						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	0	0	10	0	10	7	10	0	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	47	0	40	103	689	0	5	158	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	47	0	40	103	689	0	5	158	9
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	47	0	40	103	689	0	5	158	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	47	0	40	103	689	0	5	158	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	47	0	40	103	689	0	5	158	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	47	0	40	103	689	0	5	158	9
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	1.00	2.00	1.00
Final Sat.:	0	0	0	1750	0	1750	1750	3800	0	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.02	0.06	0.18	0.00	0.00	0.04	0.01
Crit Moves:				****				****		****		
Green Time:	0.0	0.0	0.0	10.8	0.0	10.8	33.0	73.2	0.0	7.0	47.2	47.2
Volume/Cap:	0.00	0.00	0.00	0.25	0.00	0.21	0.18	0.25	0.00	0.04	0.09	0.01
Uniform Del:	0.0	0.0	0.0	40.8	0.0	40.7	23.8	4.4	0.0	43.4	14.6	14.0
IncremntDel:	0.0	0.0	0.0	0.7	0.0	0.6	0.1	0.0	0.0	0.1	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00
Delay/Veh:	0.0	0.0	0.0	41.5	0.0	41.2	24.0	4.4	0.0	43.5	14.6	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	41.5	0.0	41.2	24.0	4.4	0.0	43.5	14.6	14.0
LOS by Move:	A	A	A	D	A	D	C	A	A	D	B	B
HCM2kAvgQ:	0	0	0	41	0	34	58	86	0	5	33	4

Note: Queue reported is the distance per lane in feet.

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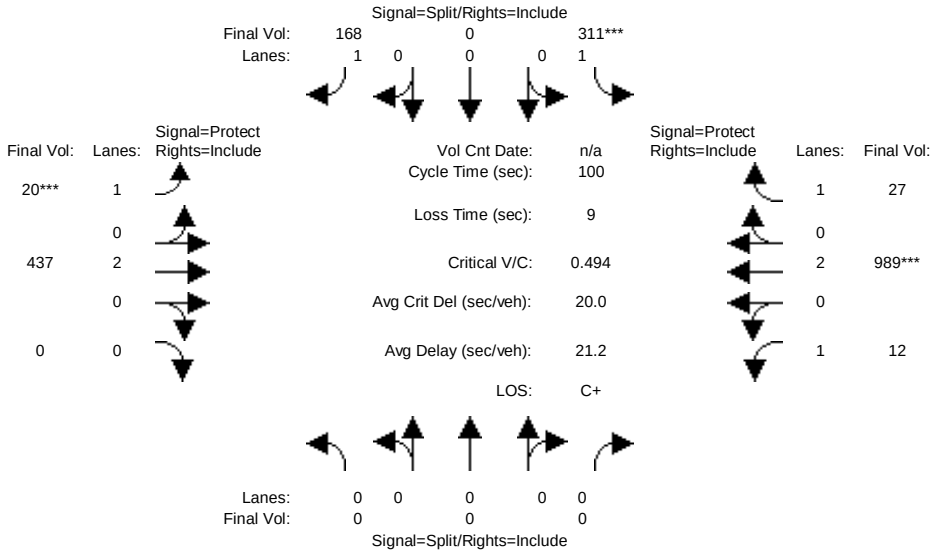
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #67: Vallco Parkway/Perimeter Road



Street Name:	Perimeter Road						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	10	0	10	7	10	0	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	311	0	168	20	437	0	12	989	27
Growth Adj:	1.00	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	311	0	168	20	437	0	12	989	27
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	311	0	168	20	437	0	12	989	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:	0	0	0	311	0	168	20	437	0	12	989	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	311	0	168	20	437	0	12	989	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:	0	0	0	311	0	168	20	437	0	12	989	27
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	1.00	2.00	1.00
Final Sat.:	0	0	0	1750	0	1750	1750	3800	0	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.18	0.00	0.10	0.01	0.12	0.00	0.01	0.26	0.02
Crit Moves:				****			****				****	
Green Time:	0.0	0.0	0.0	34.1	0.0	34.1	7.0	35.4	0.0	21.5	49.9	49.9
Volume/Cap:	0.00	0.00	0.00	0.52	0.00	0.28	0.16	0.33	0.00	0.03	0.52	0.03
Uniform Del:	0.0	0.0	0.0	26.4	0.0	24.0	43.7	23.6	0.0	31.0	17.0	12.7
IncremntDel:	0.0	0.0	0.0	0.8	0.0	0.3	0.6	0.1	0.0	0.0	0.3	0.0
InitQueuDel:	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	1.00	1.00	1.00
Delay/Veh:	0.0	0.0	0.0	27.3	0.0	24.3	44.4	23.7	0.0	31.0	17.2	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	27.3	0.0	24.3	44.4	23.7	0.0	31.0	17.2	12.8
LOS by Move:	A	A	A	C	A	C	D	C	A	C	B	B
HCM2kAvgQ:	0	0	0	214	0	102	15	118	0	8	259	11

Note: Queue reported is the distance per lane in feet.

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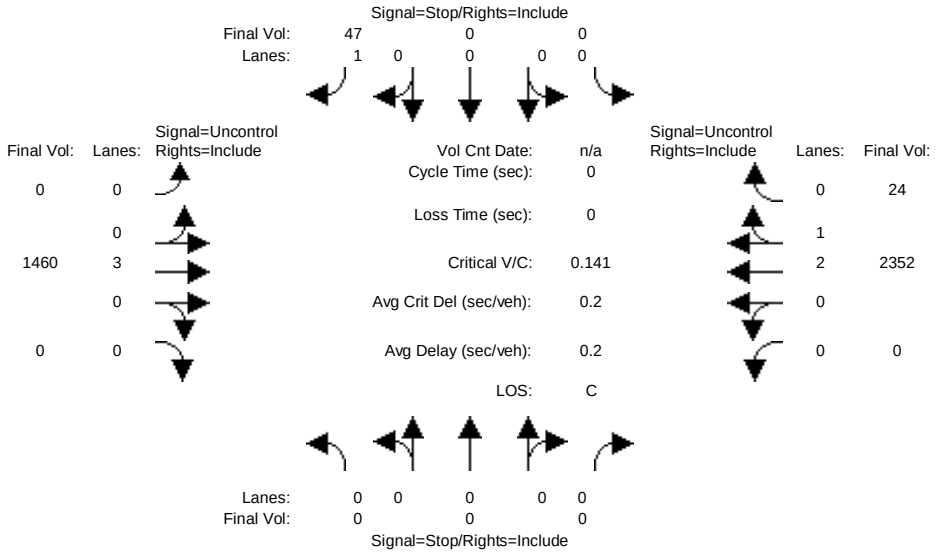
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #68: Stevens Creek Boulevard/Vallco Driveway 6



Street Name:	Vallco Driveway 6						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	0	0	0	0	0	47	0	1460	0	0	2352	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:	0	0	0	0	0	47	0	1460	0	0	2352	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:	0	0	0	0	0	47	0	1460	0	0	2352	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:	0	0	0	0	0	47	0	1460	0	0	2352	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	47	0	1460	0	0	2352	24
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	796	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	334	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	334	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.14	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	12.1	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	17.5	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	C	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			17.5			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #68 Stevens Creek Boulevard/Vallco Driveway 6

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	47	0	1460	0	0	2352	24
ApproachDel:	xxxxxx			17.5			xxxxxx			xxxxxx		

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=47]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=3883]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #68 Stevens Creek Boulevard/Vallco Driveway 6

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	47	0	1460	0	0	2352	24

Major Street Volume: 3836
Minor Approach Volume: 47
Minor Approach Volume Threshold: -178 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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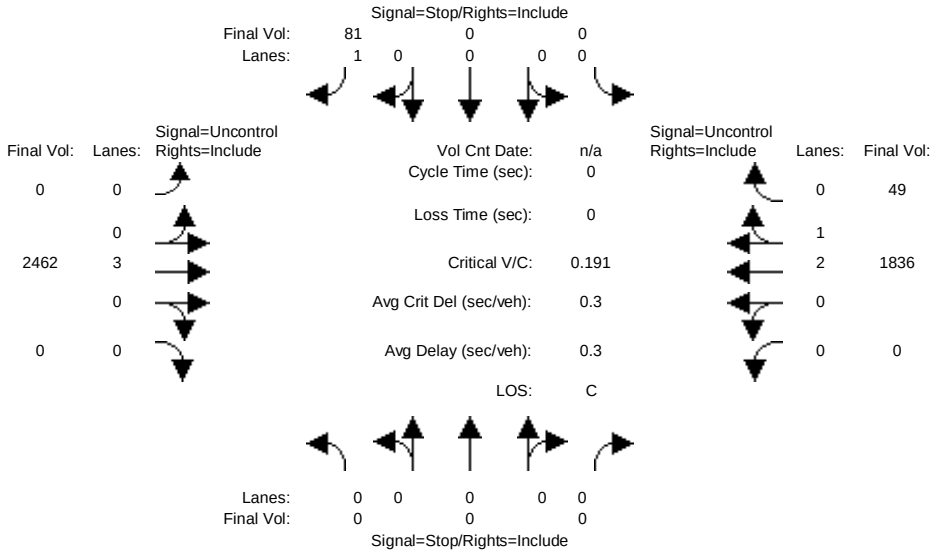
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + App + Proj PM

Intersection #68: Stevens Creek Boulevard/Vallco Driveway 6



Street Name:	Vallco Driveway 6						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	0	0	0	0	81	0	2462	0	0	1836	49
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	81	0	2462	0	0	1836	49
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	0	0	81	0	2462	0	0	1836	49
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	0	0	81	0	2462	0	0	1836	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	81	0	2462	0	0	1836	49
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	637	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	425	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	425	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.19	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	17.4	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	15.5	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	C	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			15.5			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #68 Stevens Creek Boulevard/Vallco Driveway 6

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	81	0	2462	0	0	1836	49
ApproachDel:	xxxxxx			15.5			xxxxxx			xxxxxx		

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=81]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=4428]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #68 Stevens Creek Boulevard/Vallco Driveway 6

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	81	0	2462	0	0	1836	49

Major Street Volume: 4347
Minor Approach Volume: 81
Minor Approach Volume Threshold: -221 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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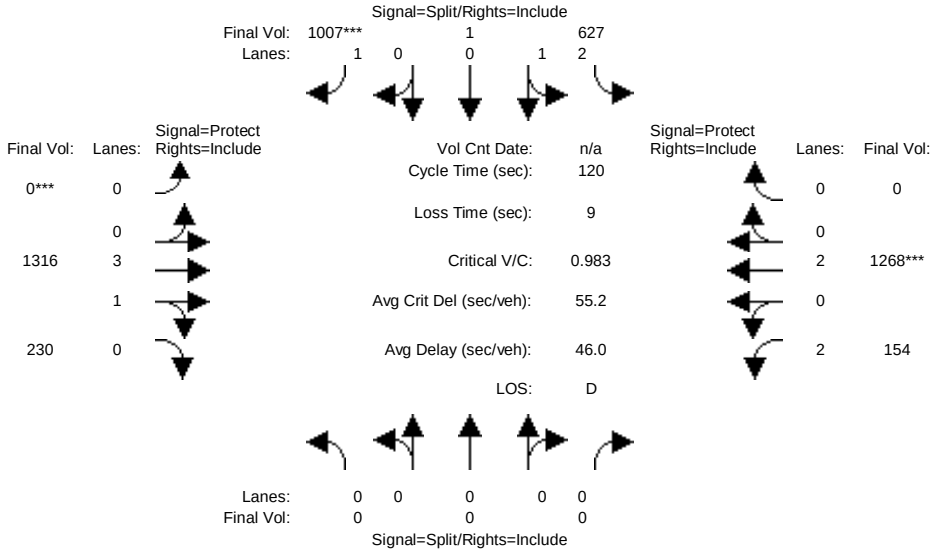
Traffix Output

Cumulative Conditions

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #1: Stevens Creek Boulevard/SR 85 Ramps West



Street Name:	SR 85 Ramps West						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	627	1	1007	0	1308	230	154	1263	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	627	1	1007	0	1308	230	154	1263	0
Added Vol:	0	0	0	0	0	0	0	8	0	0	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	627	1	1007	0	1316	230	154	1268	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	0	0	627	1	1007	0	1316	230	154	1268	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	627	1	1007	0	1316	230	154	1268	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	627	1	1007	0	1316	230	154	1268	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.87	0.95	0.92	0.92	0.99	0.95	0.83	1.00	0.92
Lanes:	0.00	0.00	0.00	2.99	0.01	1.00	0.00	3.38	0.62	2.00	2.00	0.00
Final Sat.:	0	0	0	4942	8	1750	0	6382	1115	3150	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.13	0.13	0.58	0.00	0.21	0.21	0.05	0.33	0.00
Crit Moves:						****	****				****	
Green Time:	0.0	0.0	0.0	70.3	70.3	70.3	0.0	31.8	31.8	9.0	40.7	0.0
Volume/Cap:	0.00	0.00	0.00	0.22	0.22	0.98	0.00	0.78	0.78	0.65	0.98	0.00
Uniform Del:	0.0	0.0	0.0	11.8	11.8	24.3	0.0	40.9	40.9	54.0	39.3	0.0
IncremntDel:	0.0	0.0	0.0	0.2	0.2	24.3	0.0	3.1	3.1	13.2	21.3	0.0
InitQueuDel:	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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	0.0	0.0	0.0	12.0	12.0	48.6	0.0	44.0	44.0	67.2	60.6	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	12.0	12.0	48.6	0.0	44.0	44.0	67.2	60.6	0.0
LOS by Move:	A	A	A	B+	B+	D	A	D	D	E	E	A
HCM2kAvgQ:	0	0	0	102	102	1153	0	375	375	77	587	0

Note: Queue reported is the distance per lane in feet.

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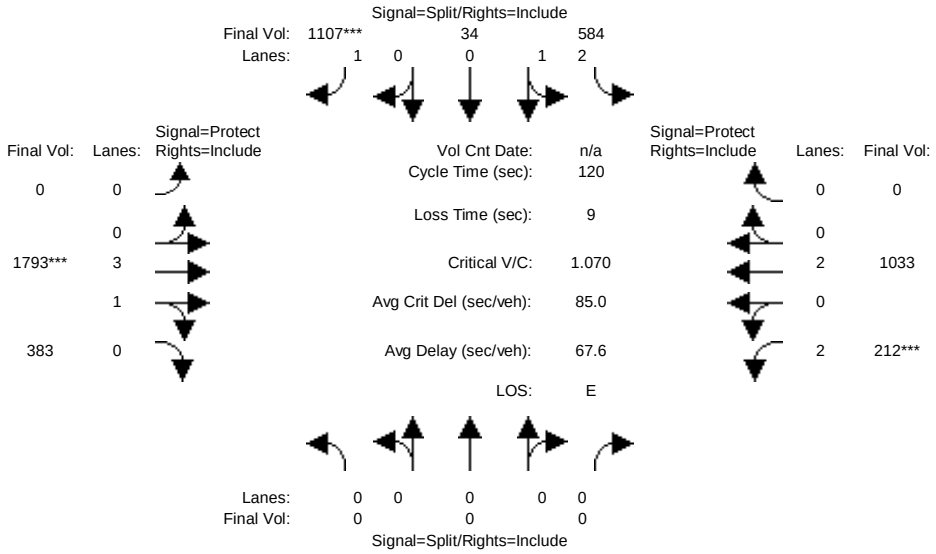
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #1: Stevens Creek Boulevard/SR 85 Ramps West



Street Name:	SR 85 Ramps West						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	584	34	1107	0	1766	383	212	1004	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	584	34	1107	0	1766	383	212	1004	0
Added Vol:	0	0	0	0	0	0	0	27	0	0	29	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	584	34	1107	0	1793	383	212	1033	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	0	0	584	34	1107	0	1793	383	212	1033	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	584	34	1107	0	1793	383	212	1033	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	584	34	1107	0	1793	383	212	1033	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.86	0.95	0.92	0.92	1.00	0.95	0.83	1.00	0.92
Lanes:	0.00	0.00	0.00	2.85	0.15	1.00	0.00	3.27	0.73	2.00	2.00	0.00
Final Sat.:	0	0	0	4676	272	1750	0	6178	1320	3150	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.12	0.12	0.63	0.00	0.29	0.29	0.07	0.27	0.00
Crit Moves:						****		****		****		
Green Time:	0.0	0.0	0.0	70.9	70.9	70.9	0.0	32.5	32.5	7.5	40.1	0.0
Volume/Cap:	0.00	0.00	0.00	0.21	0.21	1.07	0.00	1.07	1.07	1.07	0.81	0.00
Uniform Del:	0.0	0.0	0.0	11.5	11.5	24.5	0.0	43.7	43.7	56.2	36.5	0.0
IncremntDel:	0.0	0.0	0.0	0.2	0.2	48.8	0.0	41.9	41.9	83.9	5.8	0.0
InitQueuDel:	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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	0.0	0.0	0.0	11.6	11.6	73.4	0.0	85.6	85.6	140.1	42.3	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	11.6	11.6	73.4	0.0	85.6	85.6	140.1	42.3	0.0
LOS by Move:	A	A	A	B+	B+	E	A	F	F	F	D	A
HCM2kAvgQ:	0	0	0	99	99	1455	0	731	731	162	444	0

Note: Queue reported is the distance per lane in feet.

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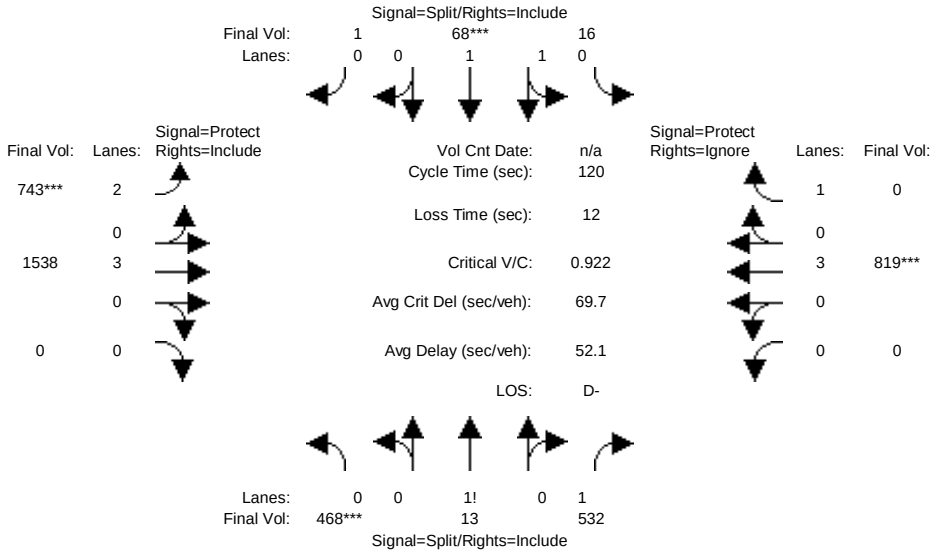
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #2: Stevens Creek Boulevard/SR 85 Ramps East



Street Name:	SR 85 Ramps East						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	0	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	468	13	532	16	68	1	743	1530	0	0	814	501
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	468	13	532	16	68	1	743	1530	0	0	814	501
Added Vol:	0	0	0	0	0	0	0	8	0	0	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	468	13	532	16	68	1	743	1538	0	0	819	501
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	0.00
PHF Volume:	468	13	532	16	68	1	743	1538	0	0	819	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	468	13	532	16	68	1	743	1538	0	0	819	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	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	468	13	532	16	68	1	743	1538	0	0	819	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.95	0.95	0.95	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	0.63	0.02	1.35	0.38	1.60	0.02	2.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	1096	30	2373	678	2880	42	3150	5700	0	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.43	0.43	0.22	0.02	0.02	0.02	0.24	0.27	0.00	0.00	0.14	0.00
Crit Moves:	****				****		****				****	
Green Time:	51.9	51.9	51.9	10.0	10.0	10.0	28.7	46.1	0.0	0.0	17.5	0.0
Volume/Cap:	0.99	0.99	0.52	0.28	0.28	0.28	0.99	0.70	0.00	0.00	0.99	0.00
Uniform Del:	33.7	33.7	24.9	51.6	51.6	51.6	45.5	31.1	0.0	0.0	51.2	0.0
IncremntDel:	25.2	25.2	1.0	2.4	2.4	2.4	29.9	1.9	0.0	0.0	28.4	0.0
InitQueuDel:	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	0.00	0.00	1.00	0.00
Delay/Veh:	59.0	59.0	25.9	54.0	54.0	54.0	75.4	33.0	0.0	0.0	79.5	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:	59.0	59.0	25.9	54.0	54.0	54.0	75.4	33.0	0.0	0.0	79.5	0.0
LOS by Move:	E+	E+	C	D-	D-	D-	E-	C-	A	A	E-	A
HCM2kAvgQ:	906	906	286	45	45	45	486	394	0	0	368	0

Note: Queue reported is the distance per lane in feet.

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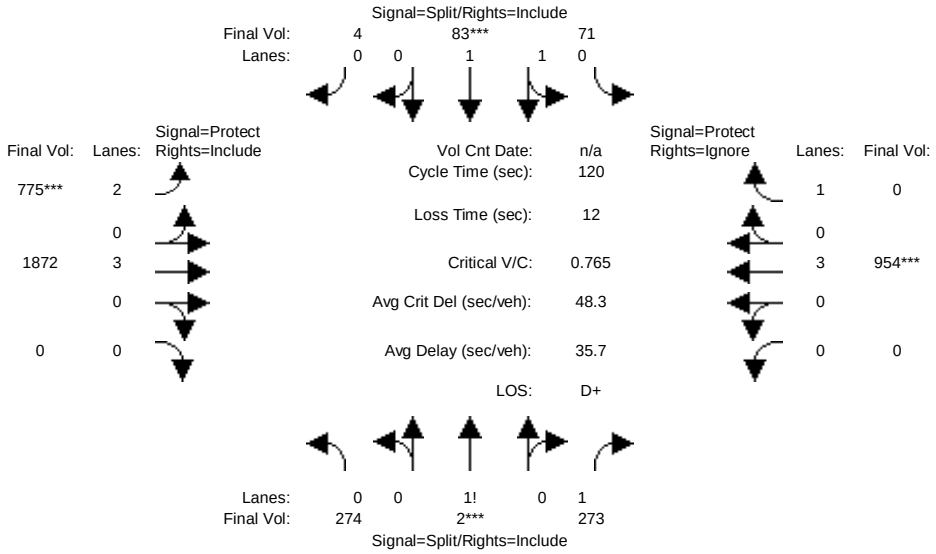
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #2: Stevens Creek Boulevard/SR 85 Ramps East



Street Name:	SR 85 Ramps East						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	0	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	274	2	273	71	83	4	775	1845	0	0	925	560
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	274	2	273	71	83	4	775	1845	0	0	925	560
Added Vol:	0	0	0	0	0	0	0	27	0	0	29	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	274	2	273	71	83	4	775	1872	0	0	954	560
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	0.00
PHF Volume:	274	2	273	71	83	4	775	1872	0	0	954	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	274	2	273	71	83	4	775	1872	0	0	954	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	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	274	2	273	71	83	4	775	1872	0	0	954	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.95	0.95	0.95	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	0.66	0.01	1.33	0.90	1.05	0.05	2.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	1184	9	2340	1618	1891	91	3150	5700	0	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.23	0.23	0.12	0.04	0.04	0.04	0.25	0.33	0.00	0.00	0.17	0.00
Crit Moves:		****			****		****				****	
Green Time:	35.2	35.2	35.2	10.0	10.0	10.0	37.4	62.8	0.0	0.0	25.4	0.0
Volume/Cap:	0.79	0.79	0.40	0.53	0.53	0.53	0.79	0.63	0.00	0.00	0.79	0.00
Uniform Del:	39.0	39.0	33.9	52.7	52.7	52.7	37.7	20.3	0.0	0.0	44.7	0.0
IncremntDel:	8.9	8.9	0.9	6.5	6.5	6.5	6.4	1.0	0.0	0.0	5.3	0.0
InitQueuDel:	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	0.00	0.00	1.00	0.00
Delay/Veh:	47.9	47.9	34.8	59.2	59.2	59.2	44.1	21.3	0.0	0.0	50.0	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:	47.9	47.9	34.8	59.2	59.2	59.2	44.1	21.3	0.0	0.0	50.0	0.0
LOS by Move:	D	D	C-	E+	E+	E+	D	C+	A	A	D	A
HCM2kAvgQ:	414	414	164	92	92	92	364	374	0	0	324	0

Note: Queue reported is the distance per lane in feet.

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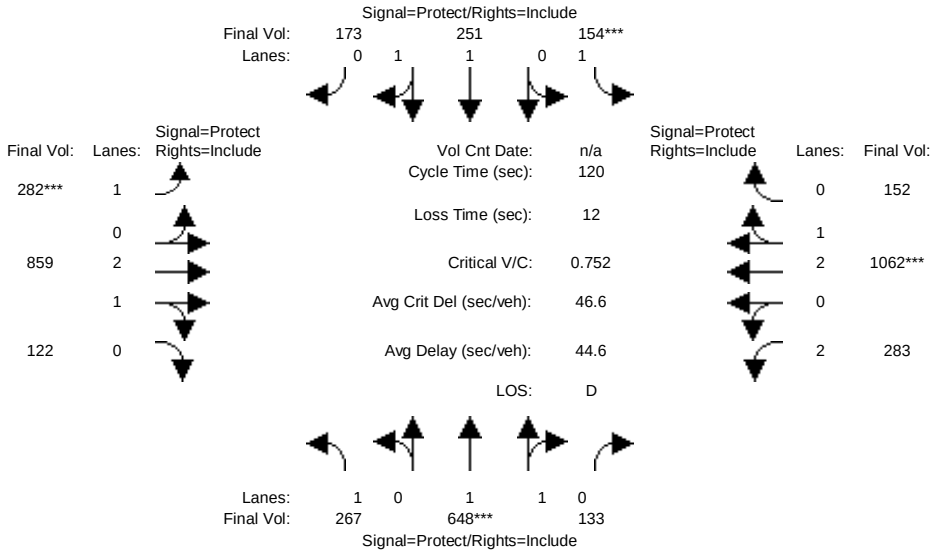
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #3: Stevens Creek Boulevard/Stelling Road



Street Name:	Stelling Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	267	648	133	154	251	173	282	843	122	283	1052	152
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	267	648	133	154	251	173	282	843	122	283	1052	152
Added Vol:	0	0	0	0	0	0	0	16	0	0	10	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	267	648	133	154	251	173	282	859	122	283	1062	152
User Adj:	1.00	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:	267	648	133	154	251	173	282	859	122	283	1062	152
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	267	648	133	154	251	173	282	859	122	283	1062	152
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	267	648	133	154	251	173	282	859	122	283	1062	152
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.99	0.95	0.92	0.99	0.95	0.83	0.99	0.95
Lanes:	1.00	1.65	0.35	1.00	1.16	0.84	1.00	2.61	0.39	2.00	2.61	0.39
Final Sat.:	1750	3069	630	1750	2189	1509	1750	4903	696	3150	4898	701
Capacity Analysis Module:												
Vol/Sat:	0.15	0.21	0.21	0.09	0.11	0.11	0.16	0.18	0.18	0.09	0.22	0.22
Crit Moves:		****		****			****				****	
Green Time:	27.2	33.7	33.7	14.0	20.5	20.5	25.7	39.9	39.9	20.4	34.6	34.6
Volume/Cap:	0.67	0.75	0.75	0.75	0.67	0.67	0.75	0.53	0.53	0.53	0.75	0.75
Uniform Del:	42.3	39.4	39.4	51.3	46.6	46.6	44.2	32.4	32.4	45.4	38.8	38.8
IncremntDel:	8.8	5.0	5.0	22.3	5.6	5.6	13.1	1.1	1.1	3.7	3.3	3.3
InitQueuDel:	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:	51.1	44.4	44.4	73.6	52.3	52.3	57.2	33.5	33.5	49.1	42.1	42.1
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:	51.1	44.4	44.4	73.6	52.3	52.3	57.2	33.5	33.5	49.1	42.1	42.1
LOS by Move:	D-	D	D	E	D-	D-	E+	C-	C-	D	D	D
HCM2kAvgQ:	267	370	370	192	215	215	302	252	252	156	378	378

Note: Queue reported is the distance per lane in feet.

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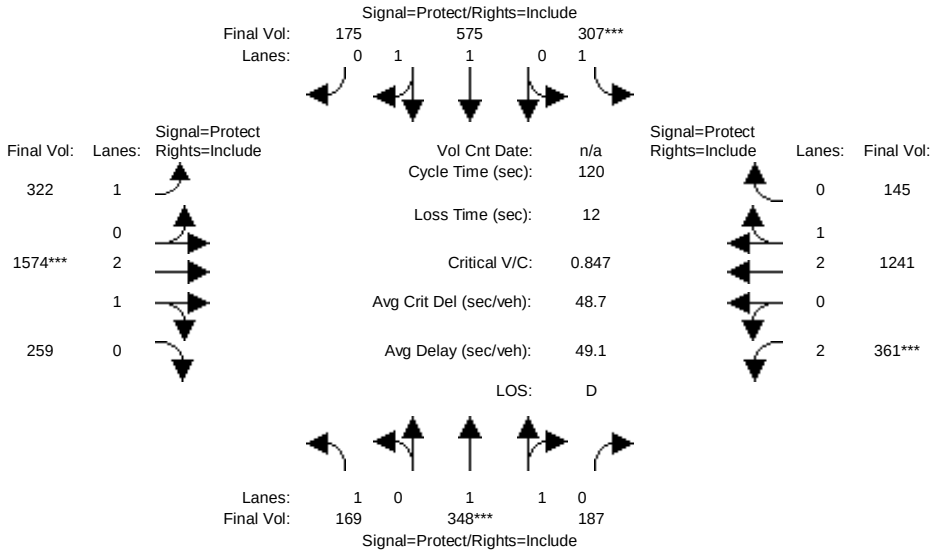
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #3: Stevens Creek Boulevard/Stelling Road



Street Name:	Stelling Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	169	348	187	307	575	175	322	1520	259	361	1183	145
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	169	348	187	307	575	175	322	1520	259	361	1183	145
Added Vol:	0	0	0	0	0	0	0	54	0	0	58	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	169	348	187	307	575	175	322	1574	259	361	1241	145
User Adj:	1.00	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:	169	348	187	307	575	175	322	1574	259	361	1241	145
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	348	187	307	575	175	322	1574	259	361	1241	145
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	169	348	187	307	575	175	322	1574	259	361	1241	145
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	0.98	0.95	0.92	0.99	0.95	0.83	0.99	0.95
Lanes:	1.00	1.28	0.72	1.00	1.52	0.48	1.00	2.56	0.44	2.00	2.67	0.33
Final Sat.:	1750	2406	1293	1750	2836	863	1750	4808	791	3150	5013	586
Capacity Analysis Module:												
Vol/Sat:	0.10	0.14	0.14	0.18	0.20	0.20	0.18	0.33	0.33	0.11	0.25	0.25
Crit Moves:		****		****				****		****		
Green Time:	14.6	20.5	20.5	24.9	30.7	30.7	26.7	46.4	46.4	16.2	35.9	35.9
Volume/Cap:	0.79	0.85	0.85	0.85	0.79	0.79	0.83	0.85	0.85	0.85	0.83	0.83
Uniform Del:	51.2	48.2	48.2	45.7	41.7	41.7	44.4	33.6	33.6	50.7	39.1	39.1
IncremntDel:	25.3	13.2	13.2	21.0	6.7	6.7	17.9	4.3	4.3	18.4	4.8	4.8
InitQueuDel:	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:	76.5	61.4	61.4	66.8	48.4	48.4	62.4	37.9	37.9	69.1	44.0	44.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	76.5	61.4	61.4	66.8	48.4	48.4	62.4	37.9	37.9	69.1	44.0	44.0
LOS by Move:	E-	E	E	E	D	D	E	D+	D+	E	D	D
HCM2kAvgQ:	215	310	310	360	376	376	364	579	579	260	457	457

Note: Queue reported is the distance per lane in feet.

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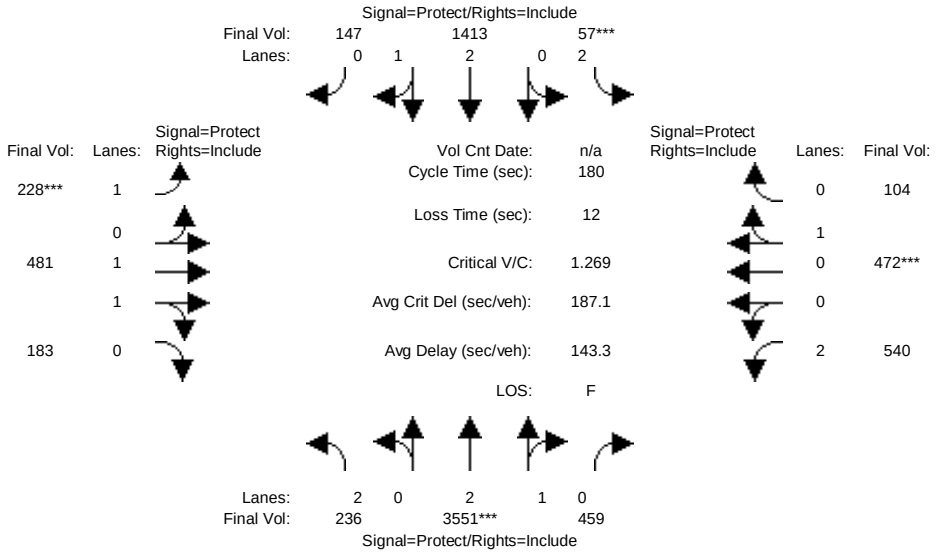
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #4: Sunnyvale Saratoga Road/Remington Drive



Street Name:	Sunnyvale Saratoga Road						Remington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	231	3546	459	57	1405	147	228	481	175	540	472	104
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	231	3546	459	57	1405	147	228	481	175	540	472	104
Added Vol:	5	5	0	0	8	0	0	0	8	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	236	3551	459	57	1413	147	228	481	183	540	472	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:	236	3551	459	57	1413	147	228	481	183	540	472	104
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	236	3551	459	57	1413	147	228	481	183	540	472	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:	236	3551	459	57	1413	147	228	481	183	540	472	104
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	0.99	0.95	0.92	0.98	0.95	0.83	0.95	0.95
Lanes:	2.00	2.64	0.36	2.00	2.71	0.29	1.00	1.43	0.57	2.00	0.82	0.18
Final Sat.:	3150	4958	641	3150	5072	528	1750	2680	1019	3150	1475	325
Capacity Analysis Module:												
Vol/Sat:	0.07	0.72	0.72	0.02	0.28	0.28	0.13	0.18	0.18	0.17	0.32	0.32
Crit Moves:		****		****			****				****	
Green Time:	22.4	98.9	98.9	7.0	83.4	83.4	18.0	31.8	31.8	30.4	44.2	44.2
Volume/Cap:	0.60	1.30	1.30	0.47	0.60	0.60	1.30	1.02	1.02	1.02	1.30	1.30
Uniform Del:	74.6	40.6	40.6	84.7	35.9	35.9	81.0	74.1	74.1	74.8	67.9	67.9
IncremntDel:	6.7	139	139.3	12.2	1.0	1.0	172.0	39.4	39.4	43.2	153	152.5
InitQueuDel:	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:	81.2	180	179.9	96.8	37.0	37.0	253.0	113	113.5	118.0	220	220.5
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:	81.2	180	179.9	96.8	37.0	37.0	253.0	113	113.5	118.0	220	220.5
LOS by Move:	F	F	F	F	D+	D+	F	F	F	F	F	F
HCM2kAvgQ:	202	2790	2790	61	529	529	565	598	598	575	1292	1292

Note: Queue reported is the distance per lane in feet.

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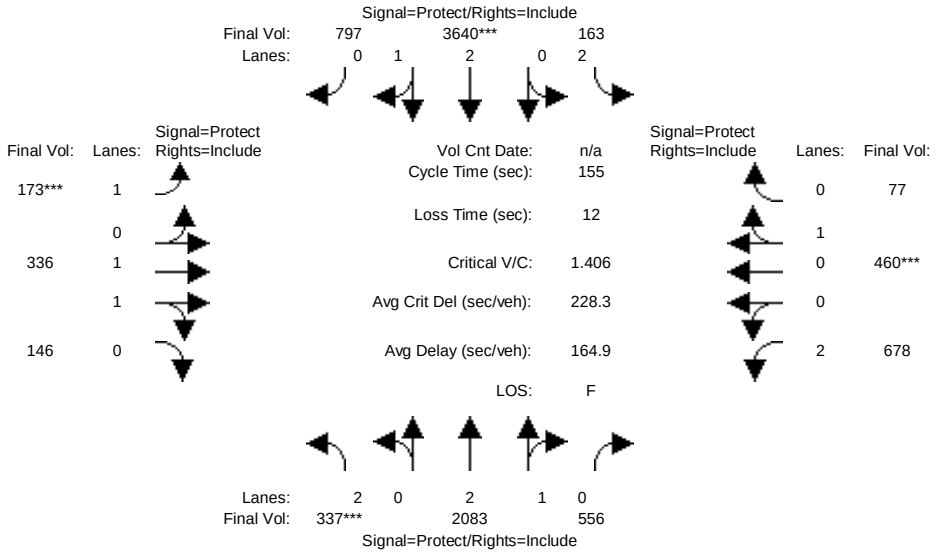
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #4: Sunnyvale Saratoga Road/Remington Drive



Street Name:	Sunnyvale Saratoga Road						Remington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	308	2054	556	163	3613	797	173	336	119	678	460	77
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	308	2054	556	163	3613	797	173	336	119	678	460	77
Added Vol:	29	29	0	0	27	0	0	0	27	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	337	2083	556	163	3640	797	173	336	146	678	460	77
User Adj:	1.00	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	2083	556	163	3640	797	173	336	146	678	460	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	337	2083	556	163	3640	797	173	336	146	678	460	77
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	337	2083	556	163	3640	797	173	336	146	678	460	77
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	0.99	0.95	0.92	0.99	0.95	0.83	0.95	0.95
Lanes:	2.00	2.34	0.66	2.00	2.44	0.56	1.00	1.38	0.62	2.00	0.86	0.14
Final Sat.:	3150	4419	1179	3150	4593	1006	1750	2578	1120	3150	1542	258
Capacity Analysis Module:												
Vol/Sat:	0.11	0.47	0.47	0.05	0.79	0.79	0.10	0.13	0.13	0.22	0.30	0.30
Crit Moves:	****				****		****				****	
Green Time:	11.8	89.4	89.4	9.8	87.4	87.4	10.9	16.5	16.5	27.3	32.9	32.9
Volume/Cap:	1.41	0.82	0.82	0.82	1.41	1.41	1.41	1.22	1.22	1.22	1.41	1.41
Uniform Del:	71.6	26.3	26.3	71.7	33.8	33.8	72.0	69.2	69.2	63.9	61.1	61.1
IncremntDel:	205.6	2.4	2.4	29.7	184	184.4	223.8	121	121.0	115.7	198	197.6
InitQueuDel:	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:	277.2	28.7	28.7	101.4	218	218.2	295.9	190	190.3	179.6	259	258.6
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:	277.2	28.7	28.7	101.4	218	218.2	295.9	190	190.3	179.6	259	258.6
LOS by Move:	F	C	C	F	F	F	F	F	F	F	F	F
HCM2kAvgQ:	466	869	869	164	3060	3060	435	493	493	770	1197	1197

Note: Queue reported is the distance per lane in feet.

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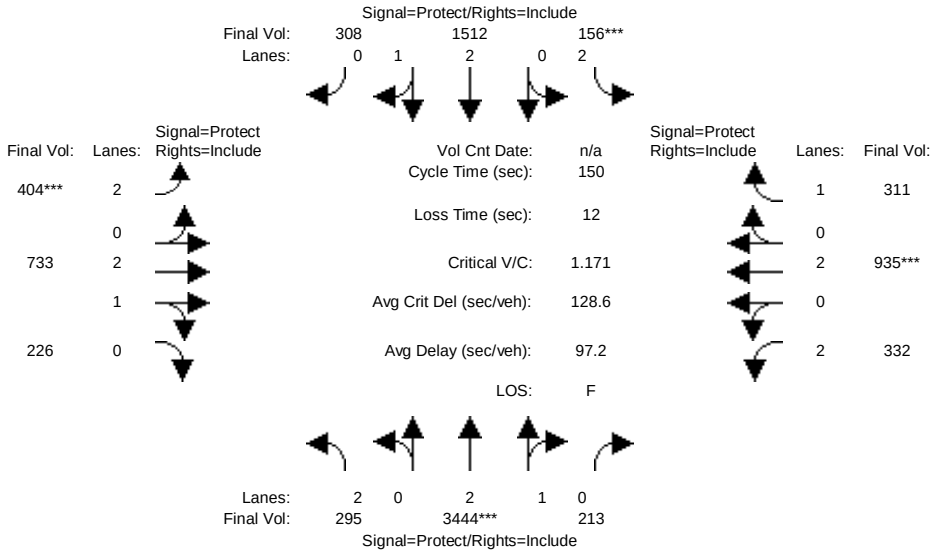
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #5: Sunnyvale Saratoga Road/Fremont Avenue



Street Name:	Sunnyvale Saratoga Road						Fremont Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	295	3434	213	156	1496	308	404	733	226	332	935	311
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	295	3434	213	156	1496	308	404	733	226	332	935	311
Added Vol:	0	10	0	0	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	295	3444	213	156	1512	308	404	733	226	332	935	311
User Adj:	1.00	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:	295	3444	213	156	1512	308	404	733	226	332	935	311
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	295	3444	213	156	1512	308	404	733	226	332	935	311
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	295	3444	213	156	1512	308	404	733	226	332	935	311
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.98	0.95	0.83	0.99	0.95	0.83	0.99	0.95	0.83	1.00	0.92
Lanes:	2.00	2.82	0.18	2.00	2.47	0.53	2.00	2.27	0.73	2.00	2.00	1.00
Final Sat.:	3150	5273	326	3150	4651	947	3150	4279	1319	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.65	0.65	0.05	0.33	0.33	0.13	0.17	0.17	0.11	0.25	0.18
Crit Moves:		****			****			****			****	
Green Time:	20.2	83.3	83.3	7.0	70.1	70.1	16.4	29.5	29.5	18.2	31.4	31.4
Volume/Cap:	0.70	1.18	1.18	1.06	0.70	0.70	1.18	0.87	0.87	0.87	1.18	0.85
Uniform Del:	62.0	33.4	33.4	71.5	31.5	31.5	66.8	58.4	58.4	64.7	59.3	57.0
IncremntDel:	9.1	83.1	83.1	91.5	1.6	1.6	105.6	9.4	9.4	22.7	92.4	21.2
InitQueuDel:	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:	71.1	116	116.4	163.0	33.1	33.1	172.5	67.8	67.8	87.4	152	78.2
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:	71.1	116	116.4	163.0	33.1	33.1	172.5	67.8	67.8	87.4	152	78.2
LOS by Move:	E	F	F	F	C-	C-	F	E	E	F	F	E-
HCM2kAvgQ:	225	2009	2009	193	562	562	460	429	429	292	817	432

Note: Queue reported is the distance per lane in feet.

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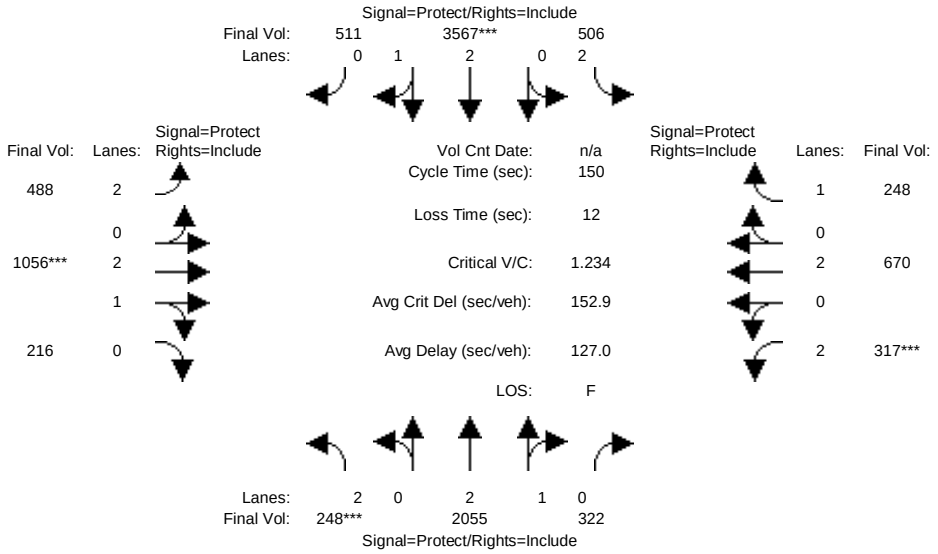
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #5: Sunnyvale Saratoga Road/Fremont Avenue



Street Name:	Sunnyvale Saratoga Road						Fremont Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	248	1997	322	506	3513	511	488	1056	216	317	670	248
Growth Adj:	1.00	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	1997	322	506	3513	511	488	1056	216	317	670	248
Added Vol:	0	58	0	0	54	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	248	2055	322	506	3567	511	488	1056	216	317	670	248
User Adj:	1.00	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	2055	322	506	3567	511	488	1056	216	317	670	248
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	248	2055	322	506	3567	511	488	1056	216	317	670	248
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	2055	322	506	3567	511	488	1056	216	317	670	248
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	0.99	0.95	0.83	0.99	0.95	0.83	1.00	0.92
Lanes:	2.00	2.58	0.42	2.00	2.61	0.39	2.00	2.47	0.53	2.00	2.00	1.00
Final Sat.:	3150	4840	758	3150	4897	702	3150	4648	951	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.42	0.42	0.16	0.73	0.73	0.15	0.23	0.23	0.10	0.18	0.14
Crit Moves:	****				****			****			****	
Green Time:	9.6	71.2	71.2	26.9	88.6	88.6	18.6	27.6	27.6	12.2	21.2	21.2
Volume/Cap:	1.23	0.89	0.89	0.89	1.23	1.23	1.25	1.23	1.23	1.23	1.25	1.00
Uniform Del:	70.2	36.0	36.0	60.1	30.7	30.7	65.7	61.2	61.2	68.9	64.4	64.4
IncremntDel:	140.5	5.2	5.2	19.2	108	107.9	130.6	114	113.7	134.1	126	57.7
InitQueuDel:	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:	210.7	41.1	41.1	79.3	139	138.6	196.3	175	174.8	203.0	190	122.0
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:	210.7	41.1	41.1	79.3	139	138.6	196.3	175	174.8	203.0	190	122.0
LOS by Move:	F	D	D	E-	F	F	F	F	F	F	F	F
HCM2kAvgQ:	317	910	910	419	2376	2376	574	801	801	390	644	426

Note: Queue reported is the distance per lane in feet.

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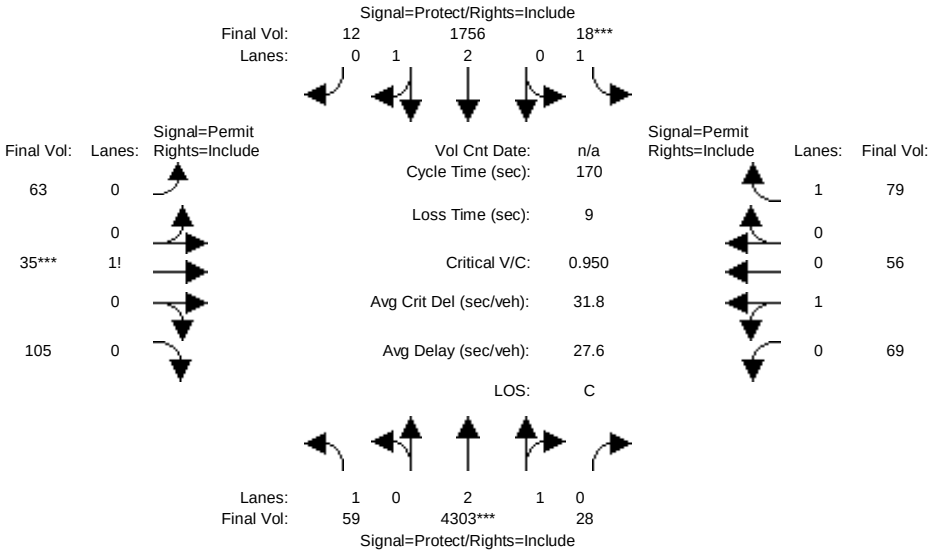
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #6: Sunnyvale Saratoga Road/Cheyenne Drive



Street Name:	Sunnyvale Saratoga Road						Cheyenne Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	59	4293	28	18	1740	12	63	35	105	69	56	79
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	59	4293	28	18	1740	12	63	35	105	69	56	79
Added Vol:	0	10	0	0	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	59	4303	28	18	1756	12	63	35	105	69	56	79
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	59	4303	28	18	1756	12	63	35	105	69	56	79
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	4303	28	18	1756	12	63	35	105	69	56	79
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	59	4303	28	18	1756	12	63	35	105	69	56	79
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.92	0.92	0.95	0.95	0.92
Lanes:	1.00	2.98	0.02	1.00	2.98	0.02	0.31	0.17	0.52	0.55	0.45	1.00
Final Sat.:	1750	5564	36	1750	5562	38	543	302	905	994	806	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.77	0.77	0.01	0.32	0.32	0.12	0.12	0.12	0.07	0.07	0.05
Crit Moves:		****		****				****				
Green Time:	16.3	134	133.9	7.0	125	124.7	20.1	20.1	20.1	20.1	20.1	20.1
Volume/Cap:	0.35	0.98	0.98	0.25	0.43	0.43	0.98	0.98	0.98	0.59	0.59	0.38
Uniform Del:	71.9	16.9	16.9	79.0	8.8	8.8	74.8	74.8	74.8	71.0	71.0	69.2
IncremntDel:	5.7	9.9	9.9	8.1	0.3	0.3	58.1	58.1	58.1	11.4	11.4	5.3
InitQueuDel:	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:	77.7	26.8	26.8	87.1	9.2	9.2	132.8	133	132.8	82.4	82.4	74.5
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:	77.7	26.8	26.8	87.1	9.2	9.2	132.8	133	132.8	82.4	82.4	74.5
LOS by Move:	E-	C	C	F	A	A	F	F	F	F	F	E
HCM2kAvgQ:	84	1924	1924	30	295	295	385	385	385	180	180	108

Note: Queue reported is the distance per lane in feet.

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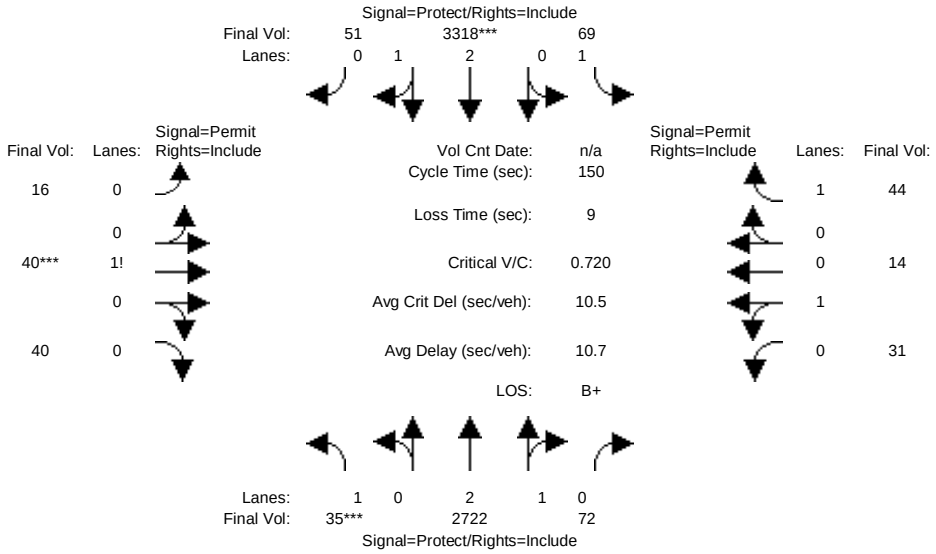
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #6: Sunnyvale Saratoga Road/Cheyenne Drive



Street Name:	Sunnyvale Saratoga Road						Cheyenne Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	35	2664	72	69	3264	51	16	40	40	31	14	44
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	35	2664	72	69	3264	51	16	40	40	31	14	44
Added Vol:	0	58	0	0	54	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	35	2722	72	69	3318	51	16	40	40	31	14	44
User Adj:	1.00	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	2722	72	69	3318	51	16	40	40	31	14	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	2722	72	69	3318	51	16	40	40	31	14	44
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	2722	72	69	3318	51	16	40	40	31	14	44
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.92	0.92	0.95	0.95	0.92
Lanes:	1.00	2.92	0.08	1.00	2.95	0.05	0.16	0.42	0.42	0.69	0.31	1.00
Final Sat.:	1750	5455	144	1750	5515	85	292	729	729	1240	560	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.50	0.50	0.04	0.60	0.60	0.05	0.05	0.05	0.03	0.03	0.03
Crit Moves:	****				****			****				
Green Time:	7.0	119	118.7	11.1	123	122.8	11.2	11.2	11.2	11.2	11.2	11.2
Volume/Cap:	0.43	0.63	0.63	0.53	0.73	0.73	0.73	0.73	0.73	0.33	0.33	0.34
Uniform Del:	69.6	6.5	6.5	66.9	6.2	6.2	67.9	67.9	67.9	65.9	65.9	65.9
IncremntDel:	15.6	0.7	0.7	14.8	1.1	1.1	30.4	30.4	30.4	6.6	6.6	6.8
InitQueuDel:	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:	85.1	7.2	7.2	81.7	7.3	7.3	98.4	98.4	98.4	72.5	72.5	72.7
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:	85.1	7.2	7.2	81.7	7.3	7.3	98.4	98.4	98.4	72.5	72.5	72.7
LOS by Move:	F	A	A	F	A	A	F	F	F	E	E	E
HCM2kAvgQ:	55	453	453	101	608	608	155	155	155	59	59	59

Note: Queue reported is the distance per lane in feet.

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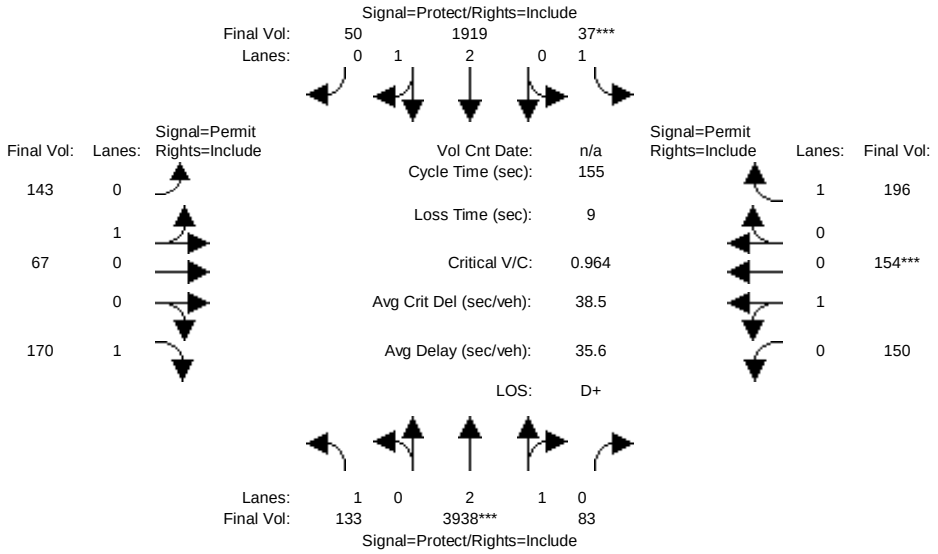
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #7: Sunnyvale Saratoga Road/Alberta Avenue



Street Name:	Sunnyvale Saratoga Road						Alberta Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	133	3928	83	37	1903	50	143	67	170	150	154	196
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	133	3928	83	37	1903	50	143	67	170	150	154	196
Added Vol:	0	10	0	0	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	133	3938	83	37	1919	50	143	67	170	150	154	196
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	133	3938	83	37	1919	50	143	67	170	150	154	196
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	133	3938	83	37	1919	50	143	67	170	150	154	196
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	133	3938	83	37	1919	50	143	67	170	150	154	196
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.94	0.06	1.00	2.92	0.08	0.68	0.32	1.00	0.49	0.51	1.00
Final Sat.:	1750	5484	116	1750	5458	142	1226	574	1750	888	912	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.72	0.72	0.02	0.35	0.35	0.12	0.12	0.10	0.17	0.17	0.11
Crit Moves:		****		****							****	
Green Time:	21.2	113	112.5	7.0	98.3	98.3	26.5	26.5	26.5	26.5	26.5	26.5
Volume/Cap:	0.55	0.99	0.99	0.47	0.55	0.55	0.68	0.68	0.57	0.99	0.99	0.66
Uniform Del:	62.5	20.6	20.6	72.2	16.0	16.0	60.3	60.3	59.0	64.1	64.1	60.0
IncremntDel:	8.9	11.8	11.8	18.6	0.6	0.6	11.7	11.7	7.6	48.6	48.6	10.7
InitQueuDel:	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:	71.4	32.4	32.4	90.8	16.6	16.6	72.0	72.0	66.7	112.8	113	70.7
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:	71.4	32.4	32.4	90.8	16.6	16.6	72.0	72.0	66.7	112.8	113	70.7
LOS by Move:	E	C-	C-	F	B	B	E	E	E	F	F	E
HCM2kAvgQ:	174	1731	1731	62	436	436	271	271	213	497	497	256

Note: Queue reported is the distance per lane in feet.

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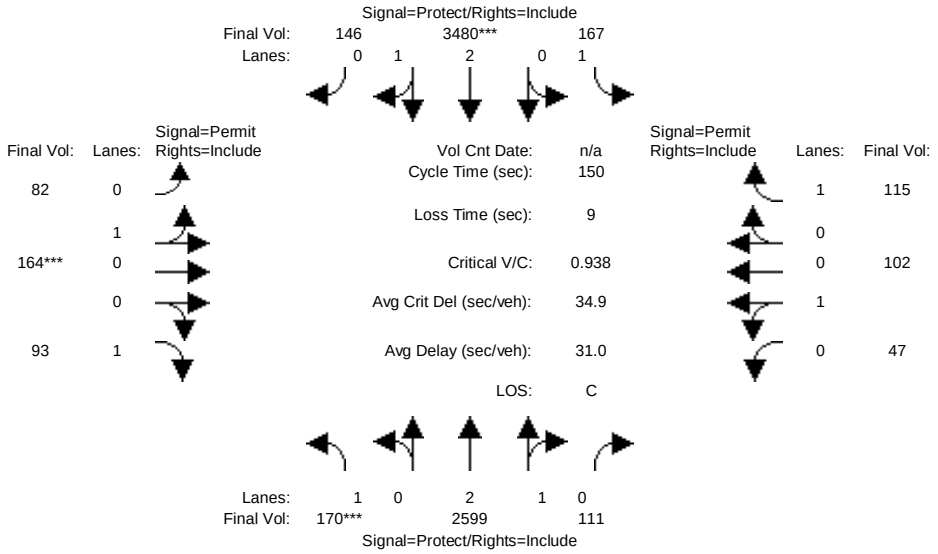
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #7: Sunnyvale Saratoga Road/Alberta Avenue



Street Name:	Sunnyvale Saratoga Road						Alberta Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	170	2541	111	167	3426	146	82	164	93	47	102	115
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	170	2541	111	167	3426	146	82	164	93	47	102	115
Added Vol:	0	58	0	0	54	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	170	2599	111	167	3480	146	82	164	93	47	102	115
User Adj:	1.00	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:	170	2599	111	167	3480	146	82	164	93	47	102	115
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	170	2599	111	167	3480	146	82	164	93	47	102	115
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	170	2599	111	167	3480	146	82	164	93	47	102	115
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.87	0.13	1.00	2.87	0.13	0.33	0.67	1.00	0.32	0.68	1.00
Final Sat.:	1750	5370	229	1750	5374	225	600	1200	1750	568	1232	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.48	0.48	0.10	0.65	0.65	0.14	0.14	0.05	0.08	0.08	0.07
Crit Moves:	****				****			****				
Green Time:	15.5	99.5	99.5	19.6	104	103.6	21.9	21.9	21.9	21.9	21.9	21.9
Volume/Cap:	0.94	0.73	0.73	0.73	0.94	0.94	0.94	0.94	0.36	0.57	0.57	0.45
Uniform Del:	66.7	16.5	16.5	62.6	20.4	20.4	63.4	63.4	57.8	59.7	59.7	58.6
IncremntDel:	52.2	1.3	1.3	18.4	5.8	5.8	41.6	41.6	4.0	8.6	8.6	5.7
InitQueuDel:	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:	118.9	17.8	17.8	81.1	26.2	26.2	105.0	105	61.8	68.3	68.3	64.2
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:	118.9	17.8	17.8	81.1	26.2	26.2	105.0	105	61.8	68.3	68.3	64.2
LOS by Move:	F	B	B	F	C	C	F	F	E	E	E	E
HCM2kAvgQ:	293	688	688	235	1332	1332	386	386	109	183	183	139

Note: Queue reported is the distance per lane in feet.

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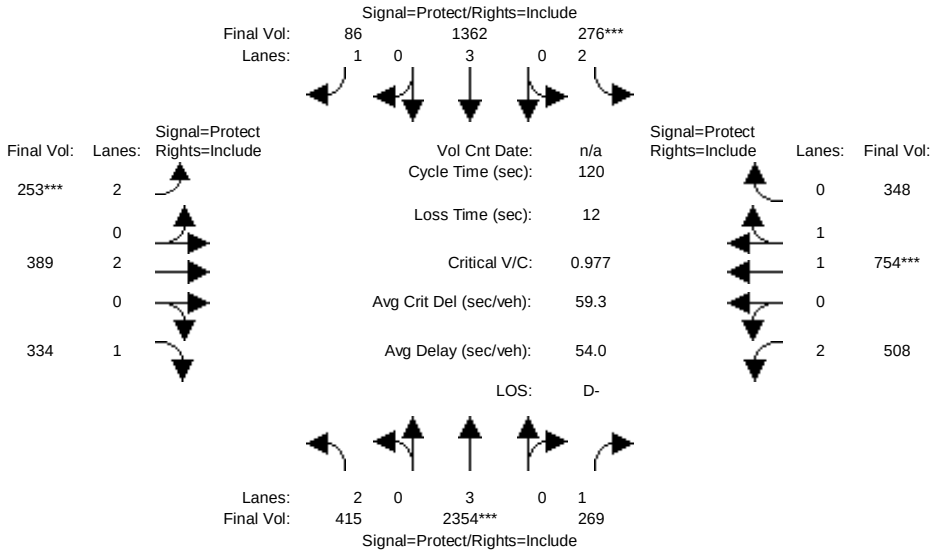
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #8: De Anza Boulevard/Homestead Road



Street Name:	De Anza Boulevard						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	410	2344	269	276	1346	86	253	385	326	508	752	348
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	410	2344	269	276	1346	86	253	385	326	508	752	348
Added Vol:	5	10	0	0	16	0	0	4	8	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	415	2354	269	276	1362	86	253	389	334	508	754	348
User Adj:	1.00	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:	415	2354	269	276	1362	86	253	389	334	508	754	348
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	415	2354	269	276	1362	86	253	389	334	508	754	348
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	415	2354	269	276	1362	86	253	389	334	508	754	348
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	1.35	0.65
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	2531	1168
Capacity Analysis Module:												
Vol/Sat:	0.13	0.41	0.15	0.09	0.24	0.05	0.08	0.10	0.19	0.16	0.30	0.30
Crit Moves:		****		****			****				****	
Green Time:	21.9	50.8	50.8	10.8	39.7	39.7	9.9	25.2	25.2	21.3	36.6	36.6
Volume/Cap:	0.72	0.98	0.36	0.98	0.72	0.15	0.98	0.49	0.91	0.91	0.98	0.98
Uniform Del:	46.2	34.0	23.6	54.5	35.3	28.3	54.9	41.7	46.3	48.4	41.3	41.3
IncremntDel:	7.7	13.6	1.4	47.9	2.4	0.5	50.2	2.1	28.8	21.2	21.7	21.7
InitQueuDel:	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:	53.9	47.6	25.0	102.4	37.8	28.8	105.2	43.8	75.0	69.6	63.0	63.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.9	47.6	25.0	102.4	37.8	28.8	105.2	43.8	75.0	69.6	63.0	63.0
LOS by Move:	D-	D	C	F	D+	C	F	D	E-	E	E	E
HCM2kAvgQ:	252	863	180	246	392	59	231	166	416	364	657	657

Note: Queue reported is the distance per lane in feet.

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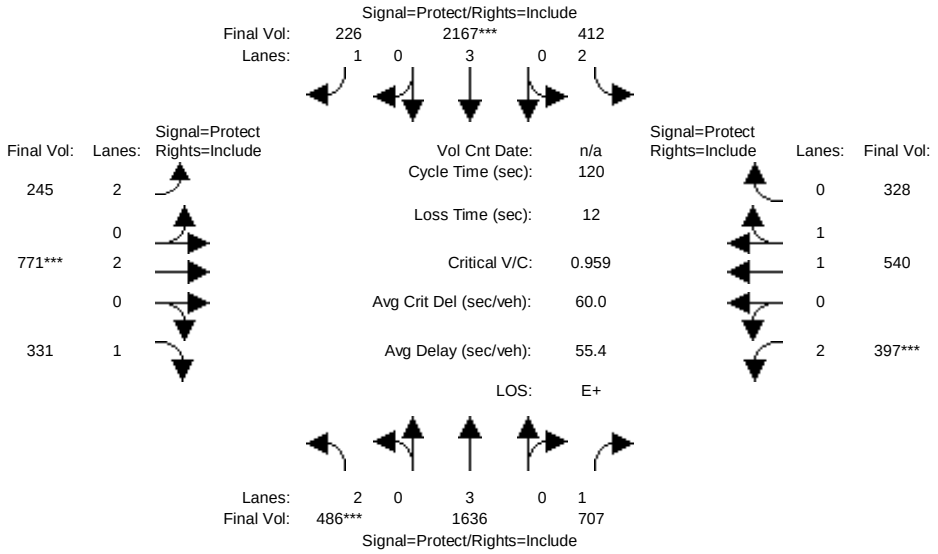
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #8: De Anza Boulevard/Homestead Road



Street Name:	De Anza Boulevard						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	457	1578	707	412	2113	226	245	758	304	397	525	328
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	457	1578	707	412	2113	226	245	758	304	397	525	328
Added Vol:	29	58	0	0	54	0	0	13	27	0	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	486	1636	707	412	2167	226	245	771	331	397	540	328
User Adj:	1.00	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:	486	1636	707	412	2167	226	245	771	331	397	540	328
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	486	1636	707	412	2167	226	245	771	331	397	540	328
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	486	1636	707	412	2167	226	245	771	331	397	540	328
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	1.22	0.78
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	2301	1398
Capacity Analysis Module:												
Vol/Sat:	0.15	0.29	0.40	0.13	0.38	0.13	0.08	0.20	0.19	0.13	0.23	0.23
Crit Moves:	****				****			****			****	
Green Time:	19.3	50.5	50.5	16.4	47.6	47.6	10.2	25.4	25.4	15.8	30.9	30.9
Volume/Cap:	0.96	0.68	0.96	0.96	0.96	0.33	0.91	0.96	0.89	0.96	0.91	0.91
Uniform Del:	50.0	28.2	33.8	51.5	35.3	25.1	54.4	46.8	46.0	51.8	43.2	43.2
IncremntDel:	31.1	1.6	24.7	34.5	11.5	1.2	36.1	23.3	26.4	35.1	14.3	14.3
InitQueuDel:	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:	81.0	29.8	58.5	86.0	46.8	26.4	90.6	70.1	72.4	86.9	57.5	57.5
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:	81.0	29.8	58.5	86.0	46.8	26.4	90.6	70.1	72.4	86.9	57.5	57.5
LOS by Move:	F	C	E+	F	D	C	F	E	E	F	E+	E+
HCM2kAvgQ:	376	420	821	330	781	154	209	468	405	320	491	491

Note: Queue reported is the distance per lane in feet.

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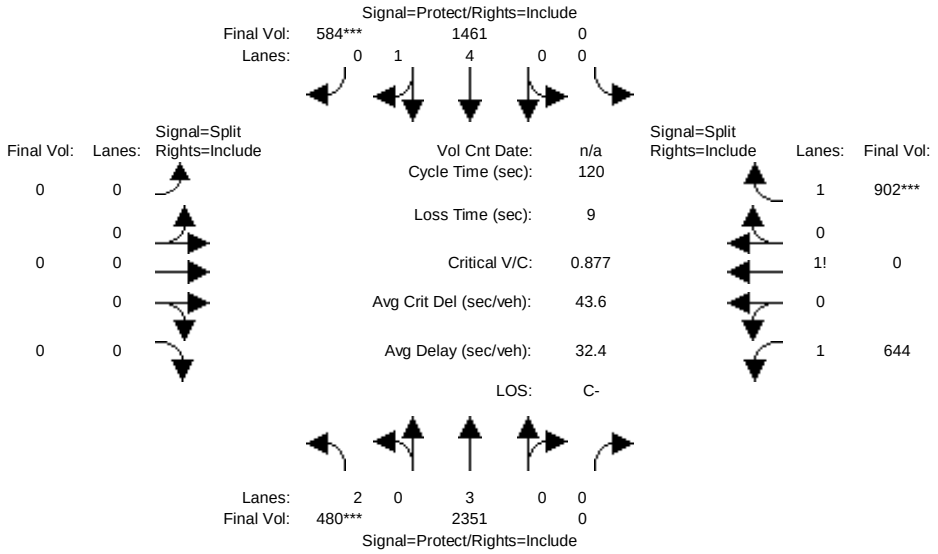
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #9: De Anza Boulevard/I-280 Ramps North



Street Name:	De Anza Boulevard						I-280 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	480	2337	0	0	1437	584	0	0	0	644	0	902
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	480	2337	0	0	1437	584	0	0	0	644	0	902
Added Vol:	0	14	0	0	24	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	480	2351	0	0	1461	584	0	0	0	644	0	902
User Adj:	1.00	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:	480	2351	0	0	1461	584	0	0	0	644	0	902
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	480	2351	0	0	1461	584	0	0	0	644	0	902
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	480	2351	0	0	1461	584	0	0	0	644	0	902
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	0.00	0.00	4.00	1.00	0.00	0.00	0.00	1.42	0.00	1.58
Final Sat.:	3150	5700	0	0	7600	1750	0	0	0	2479	0	2771
Capacity Analysis Module:												
Vol/Sat:	0.15	0.41	0.00	0.00	0.19	0.33	0.00	0.00	0.00	0.26	0.00	0.33
Crit Moves:	****					****						****
Green Time:	20.8	66.5	0.0	0.0	45.6	45.6	0.0	0.0	0.0	44.5	0.0	44.5
Volume/Cap:	0.88	0.74	0.00	0.00	0.51	0.88	0.00	0.00	0.00	0.70	0.00	0.88
Uniform Del:	48.3	20.3	0.0	0.0	28.5	34.6	0.0	0.0	0.0	32.1	0.0	35.2
IncremntDel:	17.8	1.6	0.0	0.0	0.5	5.1	0.0	0.0	0.0	1.9	0.0	6.5
InitQueuDel:	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	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	66.1	21.9	0.0	0.0	29.0	39.6	0.0	0.0	0.0	33.9	0.0	41.7
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:	66.1	21.9	0.0	0.0	29.0	39.6	0.0	0.0	0.0	33.9	0.0	41.7
LOS by Move:	E	C+	A	A	C	D	A	A	A	C-	A	D
HCM2kAvgQ:	269	534	0	0	258	615	0	0	0	404	0	604

Note: Queue reported is the distance per lane in feet.

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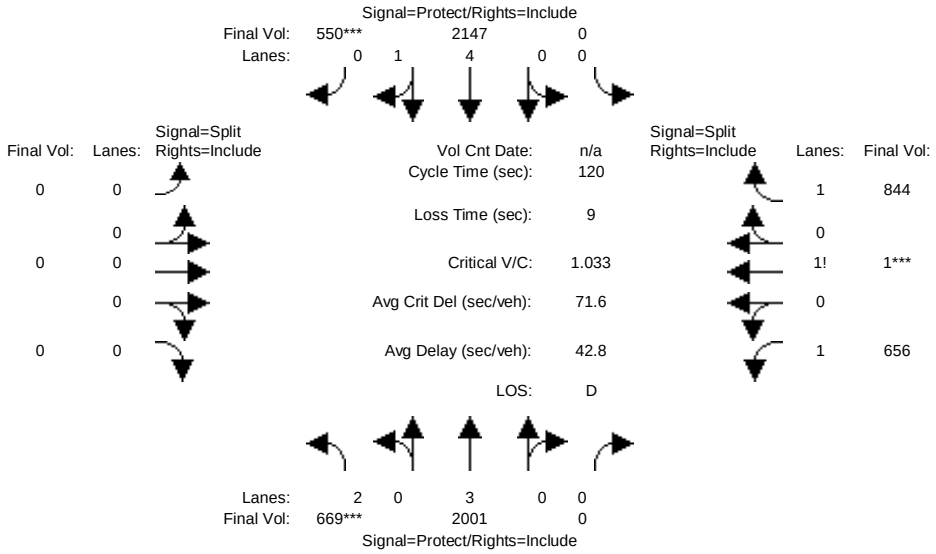
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #9: De Anza Boulevard/I-280 Ramps North



Street Name:	De Anza Boulevard						I-280 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	669	1914	0	0	2067	550	0	0	0	656	1	844
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	669	1914	0	0	2067	550	0	0	0	656	1	844
Added Vol:	0	87	0	0	80	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	669	2001	0	0	2147	550	0	0	0	656	1	844
User Adj:	1.00	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:	669	2001	0	0	2147	550	0	0	0	656	1	844
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	669	2001	0	0	2147	550	0	0	0	656	1	844
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	669	2001	0	0	2147	550	0	0	0	656	1	844
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	2.00	3.00	0.00	0.00	4.00	1.00	0.00	0.00	0.00	1.43	0.01	1.56
Final Sat.:	3150	5700	0	0	7600	1750	0	0	0	2514	2	2733
Capacity Analysis Module:												
Vol/Sat:	0.21	0.35	0.00	0.00	0.28	0.31	0.00	0.00	0.00	0.26	0.43	0.31
Crit Moves:	****					****					****	
Green Time:	24.7	61.2	0.0	0.0	36.5	36.5	0.0	0.0	0.0	49.8	49.8	49.8
Volume/Cap:	1.03	0.69	0.00	0.00	0.93	1.03	0.00	0.00	0.00	0.63	1.03	0.74
Uniform Del:	47.7	22.2	0.0	0.0	40.5	41.8	0.0	0.0	0.0	27.8	35.1	29.7
IncremntDel:	44.2	1.4	0.0	0.0	6.7	26.9	0.0	0.0	0.0	1.3	32.6	2.5
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	91.9	23.6	0.0	0.0	47.2	68.7	0.0	0.0	0.0	29.0	67.7	32.2
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:	91.9	23.6	0.0	0.0	47.2	68.7	0.0	0.0	0.0	29.0	67.7	32.2
LOS by Move:	F	C	A	A	D	E	A	A	A	C	E	C-
HCM2kAvgQ:	501	483	0	0	584	746	0	0	0	367	976	479

Note: Queue reported is the distance per lane in feet.

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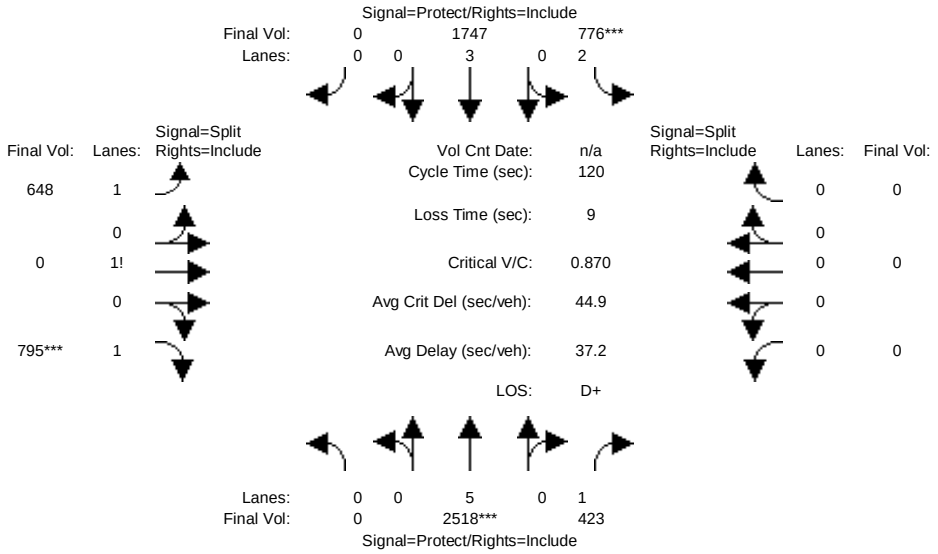
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #10: De Anza Boulevard/I-280 Ramps South



Street Name:	De Anza Boulevard						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	10	10	7	10	0	7	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	2504	423	776	1723	0	648	0	795	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2504	423	776	1723	0	648	0	795	0	0	0
Added Vol:	0	14	0	0	24	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2518	423	776	1747	0	648	0	795	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	2518	423	776	1747	0	648	0	795	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2518	423	776	1747	0	648	0	795	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	2518	423	776	1747	0	648	0	795	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	5.00	1.00	2.00	3.00	0.00	1.45	0.00	1.55	0.00	0.00	0.00
Final Sat.:	0	9500	1750	3150	5700	0	2536	0	2714	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.24	0.25	0.31	0.00	0.26	0.00	0.29	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green Time:	0.0	36.6	36.6	34.0	70.6	0.0	40.4	0.0	40.4	0.0	0.0	0.0
Volume/Cap:	0.00	0.87	0.79	0.87	0.52	0.00	0.76	0.00	0.87	0.00	0.00	0.00
Uniform Del:	0.0	39.5	38.2	40.9	14.7	0.0	35.4	0.0	37.3	0.0	0.0	0.0
IncremntDel:	0.0	3.9	11.5	11.3	0.6	0.0	2.9	0.0	6.5	0.0	0.0	0.0
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	43.3	49.7	52.2	15.3	0.0	38.3	0.0	43.8	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:	0.0	43.3	49.7	52.2	15.3	0.0	38.3	0.0	43.8	0.0	0.0	0.0
LOS by Move:	A	D	D	D-	B	A	D+	A	D	A	A	A
HCM2kAvgQ:	0	510	430	462	323	0	429	0	550	0	0	0

Note: Queue reported is the distance per lane in feet.

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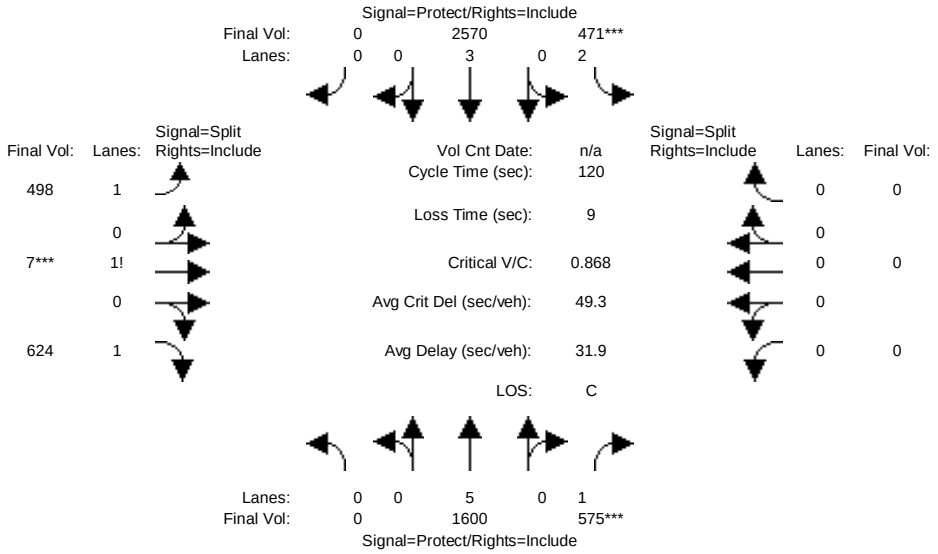
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #10: De Anza Boulevard/I-280 Ramps South



Street Name:	De Anza Boulevard						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	7	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1513	575	471	2490	0	498	7	624	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1513	575	471	2490	0	498	7	624	0	0	0
Added Vol:	0	87	0	0	80	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1600	575	471	2570	0	498	7	624	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	1600	575	471	2570	0	498	7	624	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1600	575	471	2570	0	498	7	624	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	1600	575	471	2570	0	498	7	624	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92
Lanes:	0.00	5.00	1.00	2.00	3.00	0.00	1.44	0.01	1.55	0.00	0.00	0.00
Final Sat.:	0	9500	1750	3150	5700	0	2517	22	2711	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.17	0.33	0.15	0.45	0.00	0.20	0.32	0.23	0.00	0.00	0.00
Crit Moves:			****	****				****				
Green Time:	0.0	45.4	45.4	20.7	66.1	0.0	44.9	44.9	44.9	0.0	0.0	0.0
Volume/Cap:	0.00	0.44	0.87	0.87	0.82	0.00	0.53	0.87	0.62	0.00	0.00	0.00
Uniform Del:	0.0	27.9	34.5	48.3	22.0	0.0	29.3	34.8	30.5	0.0	0.0	0.0
IncremntDel:	0.0	0.4	14.4	16.9	2.5	0.0	0.9	8.0	1.6	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	28.3	48.9	65.3	24.5	0.0	30.3	42.8	32.1	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	28.3	48.9	65.3	24.5	0.0	30.3	42.8	32.1	0.0	0.0	0.0
LOS by Move:	A	C	D	E	C	A	C	D	C-	A	A	A
HCM2kAvgQ:	0	219	599	253	622	0	272	594	335	0	0	0

Note: Queue reported is the distance per lane in feet.

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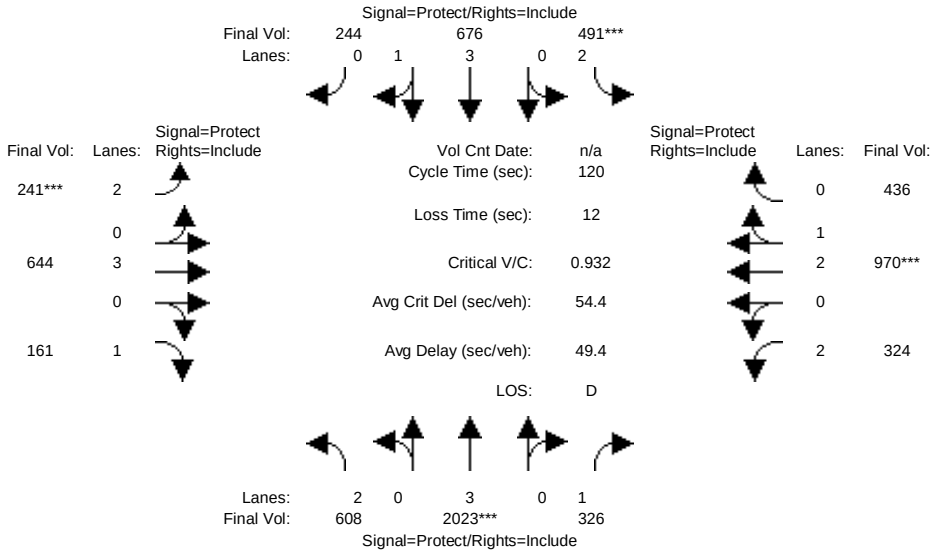
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #11: De Anza Boulevard/Stevens Creek Boulevard



Street Name:	De Anza Boulevard						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	608	2023	322	460	676	244	241	620	161	322	956	417
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	608	2023	322	460	676	244	241	620	161	322	956	417
Added Vol:	0	0	4	31	0	0	0	24	0	2	14	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	608	2023	326	491	676	244	241	644	161	324	970	436
User Adj:	1.00	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:	608	2023	326	491	676	244	241	644	161	324	970	436
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	608	2023	326	491	676	244	241	644	161	324	970	436
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	608	2023	326	491	676	244	241	644	161	324	970	436
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.95
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.04	0.96
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	5700	1750	3150	3861	1736
Capacity Analysis Module:												
Vol/Sat:	0.19	0.35	0.19	0.16	0.12	0.14	0.08	0.11	0.09	0.10	0.25	0.25
Crit Moves:		****		****			****				****	
Green Time:	38.2	45.7	45.7	20.1	27.6	27.6	9.9	22.1	22.1	20.1	32.4	32.4
Volume/Cap:	0.61	0.93	0.49	0.93	0.52	0.61	0.93	0.61	0.50	0.61	0.93	0.93
Uniform Del:	34.6	35.6	28.3	49.3	40.4	41.3	54.7	45.0	44.0	46.3	42.7	42.7
IncremntDel:	2.7	8.8	2.6	25.5	1.1	1.8	40.8	2.7	5.4	5.3	11.8	11.8
InitQueuDel:	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:	37.3	44.4	30.8	74.8	41.4	43.2	95.5	47.7	49.4	51.6	54.5	54.5
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:	37.3	44.4	30.8	74.8	41.4	43.2	95.5	47.7	49.4	51.6	54.5	54.5
LOS by Move:	D+	D	C	E	D	D	F	D	D	D-	D-	D-
HCM2kAvgQ:	295	704	248	365	190	234	212	201	155	187	534	534

Note: Queue reported is the distance per lane in feet.

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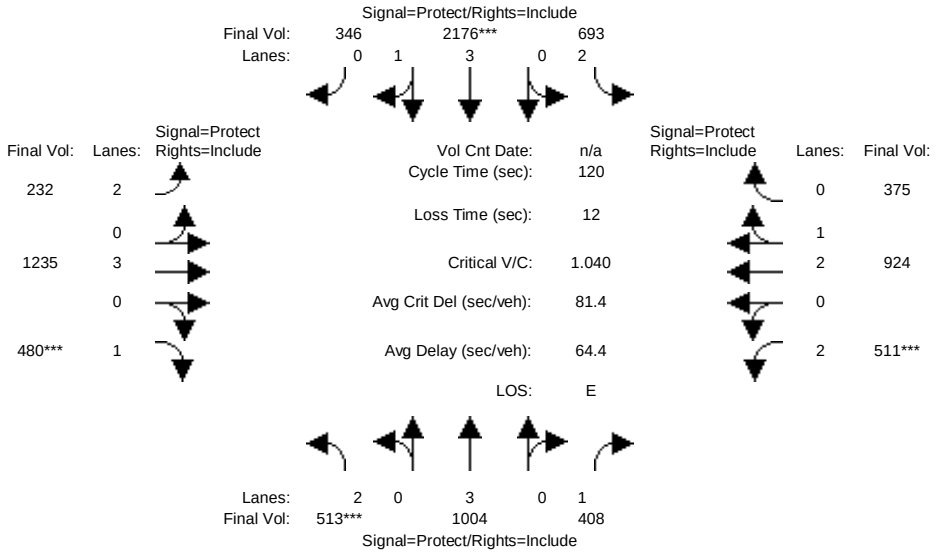
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #11: De Anza Boulevard/Stevens Creek Boulevard



Street Name:	De Anza Boulevard						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	513	1004	395	586	2176	346	232	1155	480	496	837	259
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	513	1004	395	586	2176	346	232	1155	480	496	837	259
Added Vol:	0	0	13	107	0	0	0	80	0	15	87	116
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	513	1004	408	693	2176	346	232	1235	480	511	924	375
User Adj:	1.00	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:	513	1004	408	693	2176	346	232	1235	480	511	924	375
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	513	1004	408	693	2176	346	232	1235	480	511	924	375
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	513	1004	408	693	2176	346	232	1235	480	511	924	375
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.99	0.95	0.83	1.00	0.92	0.83	1.00	0.95
Lanes:	2.00	3.00	1.00	2.00	3.43	0.57	2.00	3.00	1.00	2.00	2.10	0.90
Final Sat.:	3150	5700	1750	3150	6469	1029	3150	5700	1750	3150	3981	1616
Capacity Analysis Module:												
Vol/Sat:	0.16	0.18	0.23	0.22	0.34	0.34	0.07	0.22	0.27	0.16	0.23	0.23
Crit Moves:	****				****				****	****		
Green Time:	18.8	29.6	29.6	28.0	38.8	38.8	12.1	31.7	31.7	18.7	38.2	38.2
Volume/Cap:	1.04	0.71	0.94	0.94	1.04	1.04	0.73	0.82	1.04	1.04	0.73	0.73
Uniform Del:	50.6	41.3	44.4	45.2	40.6	40.6	52.3	41.5	44.2	50.6	36.3	36.3
IncremntDel:	51.2	3.1	31.3	22.0	29.6	29.6	13.6	5.2	52.6	51.3	2.6	2.6
InitQueuDel:	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:	101.8	44.4	75.6	67.2	70.2	70.2	66.0	46.7	96.7	101.9	38.9	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:	101.8	44.4	75.6	67.2	70.2	70.2	66.0	46.7	96.7	101.9	38.9	38.9
LOS by Move:	F	D	E-	E	E	E	E	D	F	F	D+	D+
HCM2kAvgQ:	433	310	512	488	797	797	164	410	670	431	386	386

Note: Queue reported is the distance per lane in feet.

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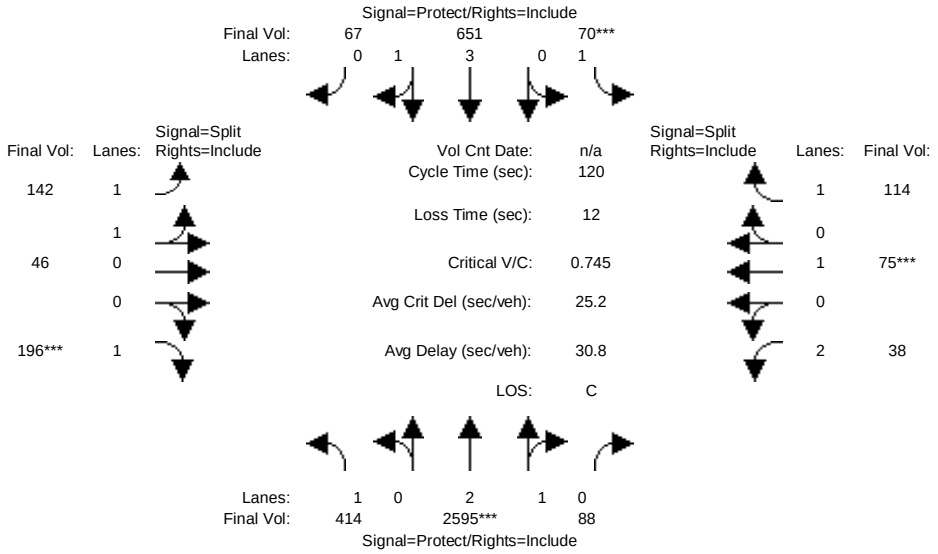
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #12: De Anza Boulevard/McClellan Road



Street Name:	De Anza Boulevard						McClellan Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	414	2591	88	70	649	67	142	46	196	38	75	114
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	414	2591	88	70	649	67	142	46	196	38	75	114
Added Vol:	0	4	0	0	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	414	2595	88	70	651	67	142	46	196	38	75	114
User Adj:	1.00	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:	414	2595	88	70	651	67	142	46	196	38	75	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	414	2595	88	70	651	67	142	46	196	38	75	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	414	2595	88	70	651	67	142	46	196	38	75	114
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.99	0.95	0.93	0.95	0.92	0.83	1.00	0.92
Lanes:	1.00	2.90	0.10	1.00	3.61	0.39	1.52	0.48	1.00	2.00	1.00	1.00
Final Sat.:	1750	5416	184	1750	6799	700	2681	869	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.24	0.48	0.48	0.04	0.10	0.10	0.05	0.05	0.11	0.01	0.04	0.07
Crit Moves:		****		****					****		****	
Green Time:	57.2	73.4	73.4	7.0	23.2	23.2	17.1	17.1	17.1	10.5	10.5	10.5
Volume/Cap:	0.50	0.78	0.78	0.69	0.50	0.50	0.37	0.37	0.78	0.14	0.45	0.75
Uniform Del:	21.5	17.4	17.4	55.4	43.2	43.2	46.5	46.5	49.6	50.6	52.0	53.4
IncremntDel:	2.1	1.9	1.9	31.5	1.2	1.2	2.1	2.1	21.4	1.0	8.6	27.7
InitQueuDel:	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:	23.6	19.3	19.3	86.9	44.4	44.4	48.6	48.6	71.0	51.6	60.6	81.2
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:	23.6	19.3	19.3	86.9	44.4	44.4	48.6	48.6	71.0	51.6	60.6	81.2
LOS by Move:	C	B-	B-	F	D	D	D	D	E	D-	E	F
HCM2kAvgQ:	281	648	648	102	159	159	90	90	238	22	79	153

Note: Queue reported is the distance per lane in feet.

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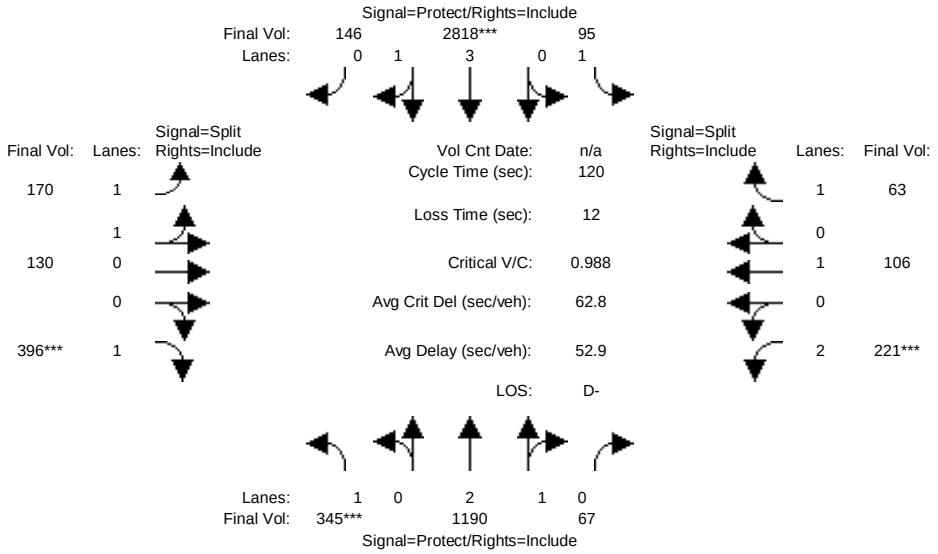
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #12: De Anza Boulevard/McClellan Road



Street Name:	De Anza Boulevard						McClellan Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	345	1177	67	95	2803	146	170	130	396	221	106	63
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	345	1177	67	95	2803	146	170	130	396	221	106	63
Added Vol:	0	13	0	0	15	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	345	1190	67	95	2818	146	170	130	396	221	106	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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:	345	1190	67	95	2818	146	170	130	396	221	106	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	345	1190	67	95	2818	146	170	130	396	221	106	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	345	1190	67	95	2818	146	170	130	396	221	106	63
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.99	0.95	0.92	0.95	0.92	0.83	1.00	0.92
Lanes:	1.00	2.83	0.17	1.00	3.79	0.21	1.15	0.85	1.00	2.00	1.00	1.00
Final Sat.:	1750	5301	298	1750	7130	369	2011	1538	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.20	0.22	0.22	0.05	0.40	0.40	0.08	0.08	0.23	0.07	0.06	0.04
Crit Moves:	****				****				****	****		
Green Time:	23.6	56.3	56.3	14.6	47.3	47.3	27.1	27.1	27.1	10.0	10.0	10.0
Volume/Cap:	1.00	0.48	0.48	0.45	1.00	1.00	0.37	0.37	1.00	0.84	0.67	0.43
Uniform Del:	48.2	21.8	21.8	48.9	36.3	36.3	39.3	39.3	46.5	54.2	53.4	52.3
IncremntDel:	49.1	0.6	0.6	6.6	17.1	17.1	1.3	1.3	45.9	26.6	20.3	9.1
InitQueuDel:	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:	97.3	22.4	22.4	55.5	53.5	53.5	40.6	40.6	92.3	80.8	73.7	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:	97.3	22.4	22.4	55.5	53.5	53.5	40.6	40.6	92.3	80.8	73.7	61.4
LOS by Move:	F	C+	C+	E+	D-	D-	D	D	F	F	E	E
HCM2kAvgQ:	485	266	266	99	871	871	128	128	543	180	126	72

Note: Queue reported is the distance per lane in feet.

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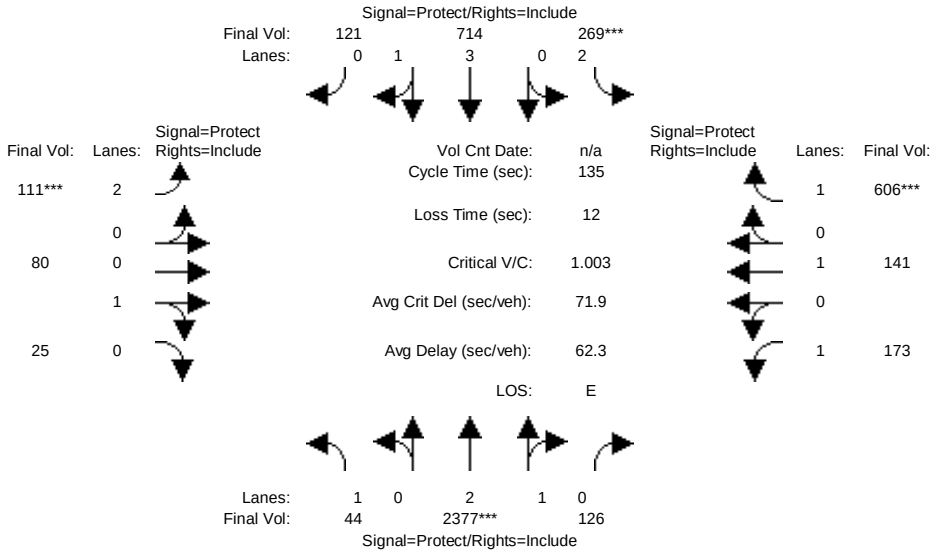
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #13: De Anza Boulevard/Bollinger Road



Street Name:	De Anza Boulevard						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	44	2373	126	269	712	121	111	80	25	173	141	606
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	44	2373	126	269	712	121	111	80	25	173	141	606
Added Vol:	0	4	0	0	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	2377	126	269	714	121	111	80	25	173	141	606
User Adj:	1.00	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:	44	2377	126	269	714	121	111	80	25	173	141	606
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	2377	126	269	714	121	111	80	25	173	141	606
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	44	2377	126	269	714	121	111	80	25	173	141	606
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.83	0.99	0.95	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	2.84	0.16	2.00	3.40	0.60	2.00	0.76	0.24	1.00	1.00	1.00
Final Sat.:	1750	5318	282	3150	6411	1087	3150	1371	429	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.45	0.45	0.09	0.11	0.11	0.04	0.06	0.06	0.10	0.07	0.35
Crit Moves:		****		****			****					****
Green Time:	22.3	59.0	59.0	11.3	48.0	48.0	7.0	22.6	22.6	30.1	45.7	45.7
Volume/Cap:	0.15	1.02	1.02	1.02	0.31	0.31	0.68	0.35	0.35	0.44	0.22	1.02
Uniform Del:	48.2	38.0	38.0	61.9	31.6	31.6	62.9	49.7	49.7	45.2	31.9	44.6
IncremntDel:	1.1	24.2	24.2	61.4	0.3	0.3	20.5	3.2	3.2	3.6	0.8	42.8
InitQueuDel:	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:	49.3	62.2	62.2	123.3	31.9	31.9	83.4	52.9	52.9	48.8	32.7	87.5
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:	49.3	62.2	62.2	123.3	31.9	31.9	83.4	52.9	52.9	48.8	32.7	87.5
LOS by Move:	D	E	E	F	C	C	F	D-	D-	D	C-	F
HCM2kAvgQ:	43	1085	1085	270	155	155	100	105	105	171	101	867

Note: Queue reported is the distance per lane in feet.

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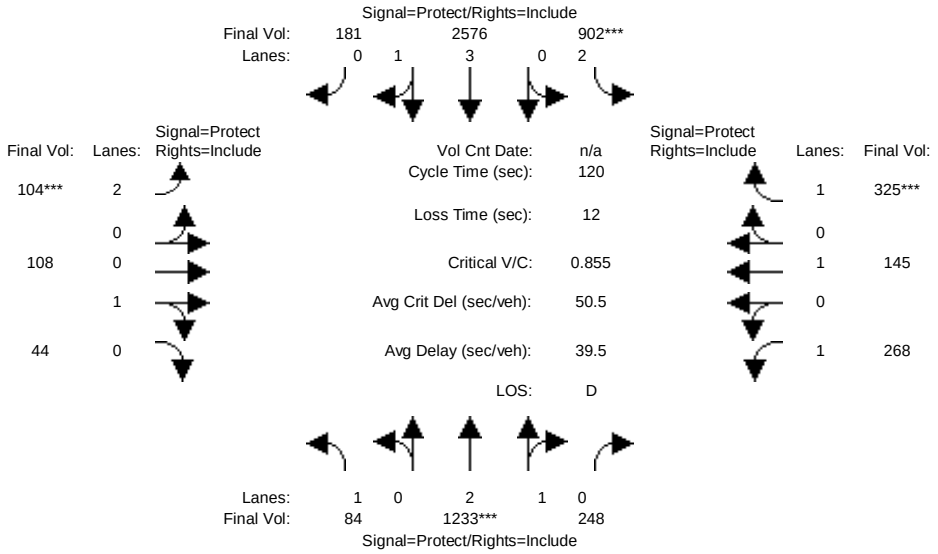
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #13: De Anza Boulevard/Bollinger Road



Street Name:	De Anza Boulevard						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	84	1220	248	902	2561	181	104	108	44	268	145	325
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	84	1220	248	902	2561	181	104	108	44	268	145	325
Added Vol:	0	13	0	0	15	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	84	1233	248	902	2576	181	104	108	44	268	145	325
User Adj:	1.00	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:	84	1233	248	902	2576	181	104	108	44	268	145	325
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	1233	248	902	2576	181	104	108	44	268	145	325
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	84	1233	248	902	2576	181	104	108	44	268	145	325
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	0.99	0.95	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	2.48	0.52	2.00	3.73	0.27	2.00	0.71	0.29	1.00	1.00	1.00
Final Sat.:	1750	4661	937	3150	7007	492	3150	1279	521	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.26	0.26	0.29	0.37	0.37	0.03	0.08	0.08	0.15	0.08	0.19
Crit Moves:		****		****			****					****
Green Time:	10.3	36.3	36.3	39.3	65.2	65.2	7.0	11.5	11.5	20.9	25.5	25.5
Volume/Cap:	0.56	0.88	0.88	0.88	0.68	0.68	0.57	0.88	0.88	0.88	0.36	0.88
Uniform Del:	52.6	39.7	39.7	38.1	19.8	19.8	55.0	53.5	53.5	48.3	40.3	45.7
IncremntDel:	14.0	6.7	6.7	10.3	0.9	0.9	12.0	42.3	42.3	28.1	2.5	23.9
InitQueuDel:	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:	66.6	46.4	46.4	48.4	20.7	20.7	67.1	95.9	95.9	76.4	42.8	69.6
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:	66.6	46.4	46.4	48.4	20.7	20.7	67.1	95.9	95.9	76.4	42.8	69.6
LOS by Move:	E	D	D	D	C+	C+	E	F	F	E-	D	E
HCM2kAvgQ:	101	513	513	545	470	470	78	214	214	337	117	390

Note: Queue reported is the distance per lane in feet.

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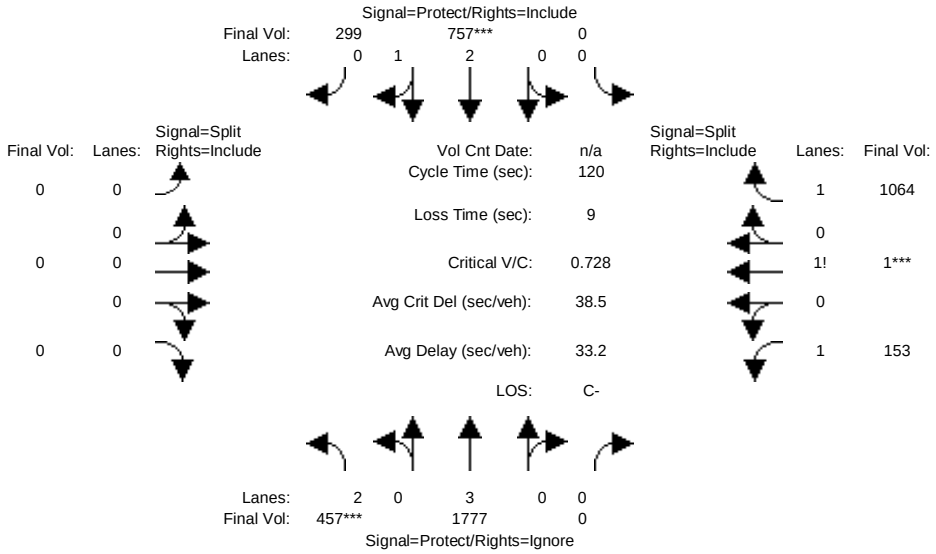
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #14: De Anza Boulevard/SR 85 Ramps North



Street Name:	De Anza Boulevard						SR 85 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	457	1773	0	0	755	299	0	0	0	153	1	1064
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	457	1773	0	0	755	299	0	0	0	153	1	1064
Added Vol:	0	4	0	0	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	457	1777	0	0	757	299	0	0	0	153	1	1064
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	457	1777	0	0	757	299	0	0	0	153	1	1064
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	457	1777	0	0	757	299	0	0	0	153	1	1064
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	457	1777	0	0	757	299	0	0	0	153	1	1064
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.95	0.92	1.00	0.92	0.92	0.95	0.95
Lanes:	2.00	3.00	0.00	0.00	2.12	0.88	0.00	0.00	0.00	1.12	0.01	1.87
Final Sat.:	3150	5700	0	0	4012	1585	0	0	0	1975	3	3366
Capacity Analysis Module:												
Vol/Sat:	0.15	0.31	0.00	0.00	0.19	0.19	0.00	0.00	0.00	0.08	0.34	0.32
Crit Moves:	****				****						****	
Green Time:	23.9	55.0	0.0	0.0	31.1	31.1	0.0	0.0	0.0	56.0	56.0	56.0
Volume/Cap:	0.73	0.68	0.00	0.00	0.73	0.73	0.00	0.00	0.00	0.17	0.73	0.68
Uniform Del:	45.0	25.6	0.0	0.0	40.6	40.6	0.0	0.0	0.0	18.5	25.9	25.0
IncremntDel:	7.3	1.5	0.0	0.0	3.2	3.2	0.0	0.0	0.0	0.0	2.8	2.1
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	52.3	27.0	0.0	0.0	43.8	43.8	0.0	0.0	0.0	18.5	28.7	27.0
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:	52.3	27.0	0.0	0.0	43.8	43.8	0.0	0.0	0.0	18.5	28.7	27.0
LOS by Move:	D-	C	A	A	D	D	A	A	A	B-	C	C
HCM2kAvgQ:	243	429	0	0	332	332	0	0	0	76	497	440

Note: Queue reported is the distance per lane in feet.

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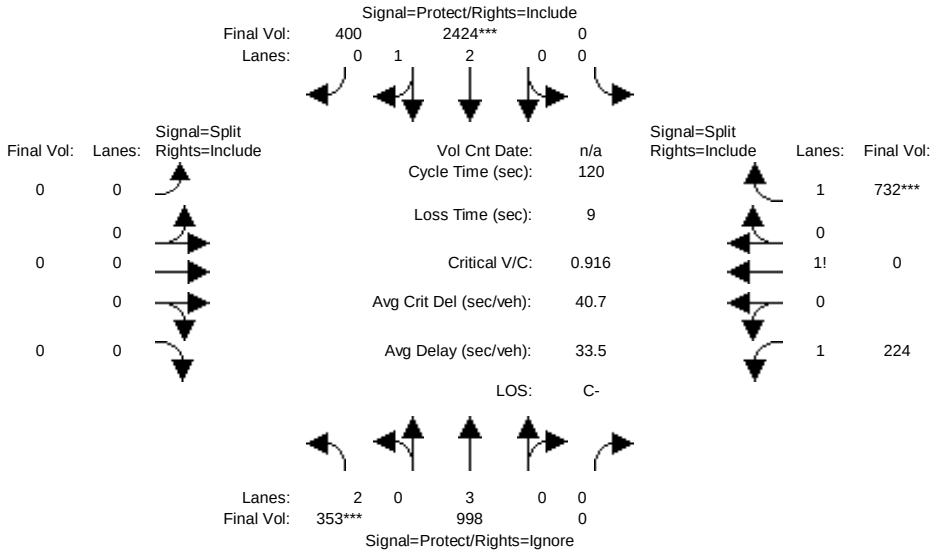
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #14: De Anza Boulevard/SR 85 Ramps North



Street Name:	De Anza Boulevard						SR 85 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	353	985	0	0	2409	400	0	0	0	224	0	732
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	353	985	0	0	2409	400	0	0	0	224	0	732
Added Vol:	0	13	0	0	15	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	353	998	0	0	2424	400	0	0	0	224	0	732
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	353	998	0	0	2424	400	0	0	0	224	0	732
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	353	998	0	0	2424	400	0	0	0	224	0	732
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	353	998	0	0	2424	400	0	0	0	224	0	732
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.95
Lanes:	2.00	3.00	0.00	0.00	2.56	0.44	0.00	0.00	0.00	1.24	0.00	1.76
Final Sat.:	3150	5700	0	0	4806	793	0	0	0	2169	0	3169
Capacity Analysis Module:												
Vol/Sat:	0.11	0.18	0.00	0.00	0.50	0.50	0.00	0.00	0.00	0.10	0.00	0.23
Crit Moves:	****				****							****
Green Time:	14.7	80.7	0.0	0.0	66.1	66.1	0.0	0.0	0.0	30.3	0.0	30.3
Volume/Cap:	0.92	0.26	0.00	0.00	0.92	0.92	0.00	0.00	0.00	0.41	0.00	0.92
Uniform Del:	52.1	7.8	0.0	0.0	24.5	24.5	0.0	0.0	0.0	37.4	0.0	43.6
IncremntDel:	28.9	0.2	0.0	0.0	5.6	5.6	0.0	0.0	0.0	0.5	0.0	13.8
InitQueuDel:	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	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	81.0	7.9	0.0	0.0	30.0	30.0	0.0	0.0	0.0	38.0	0.0	57.4
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:	81.0	7.9	0.0	0.0	30.0	30.0	0.0	0.0	0.0	38.0	0.0	57.4
LOS by Move:	F	A	A	A	C	C	A	A	A	D+	A	E+
HCM2kAvgQ:	220	118	0	0	893	893	0	0	0	153	0	488

Note: Queue reported is the distance per lane in feet.

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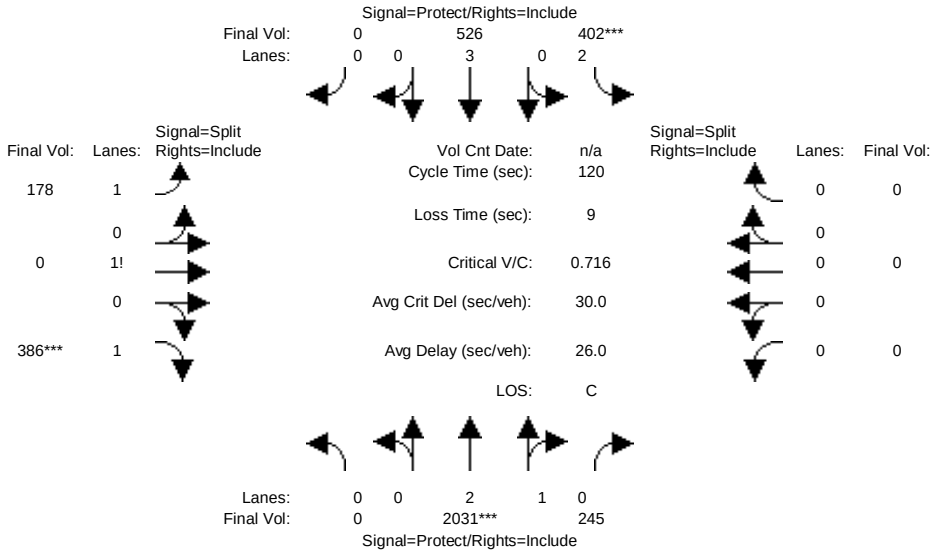
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #15: De Anza Boulevard/SR 85 Ramps South



Street Name:	De Anza Boulevard						SR 85 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	2027	245	402	524	0	178	0	386	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2027	245	402	524	0	178	0	386	0	0	0
Added Vol:	0	4	0	0	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2031	245	402	526	0	178	0	386	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	2031	245	402	526	0	178	0	386	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2031	245	402	526	0	178	0	386	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	2031	245	402	526	0	178	0	386	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.92	1.00	0.95	0.92	1.00	0.92
Lanes:	0.00	2.67	0.33	2.00	3.00	0.00	1.32	0.00	1.68	0.00	0.00	0.00
Final Sat.:	0	4996	603	3150	5700	0	2313	0	3021	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.41	0.41	0.13	0.09	0.00	0.08	0.00	0.13	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green Time:	0.0	68.2	68.2	21.4	89.6	0.0	21.4	0.0	21.4	0.0	0.0	0.0
Volume/Cap:	0.00	0.72	0.72	0.72	0.12	0.00	0.43	0.00	0.72	0.00	0.00	0.00
Uniform Del:	0.0	18.9	18.9	46.4	4.3	0.0	43.9	0.0	46.4	0.0	0.0	0.0
IncremntDel:	0.0	1.4	1.4	7.6	0.1	0.0	1.0	0.0	5.5	0.0	0.0	0.0
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	20.3	20.3	54.0	4.3	0.0	44.9	0.0	51.9	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:	0.0	20.3	20.3	54.0	4.3	0.0	44.9	0.0	51.9	0.0	0.0	0.0
LOS by Move:	A	C+	C+	D-	A	A	D	A	D-	A	A	A
HCM2kAvgQ:	0	528	528	214	45	0	127	0	244	0	0	0

Note: Queue reported is the distance per lane in feet.

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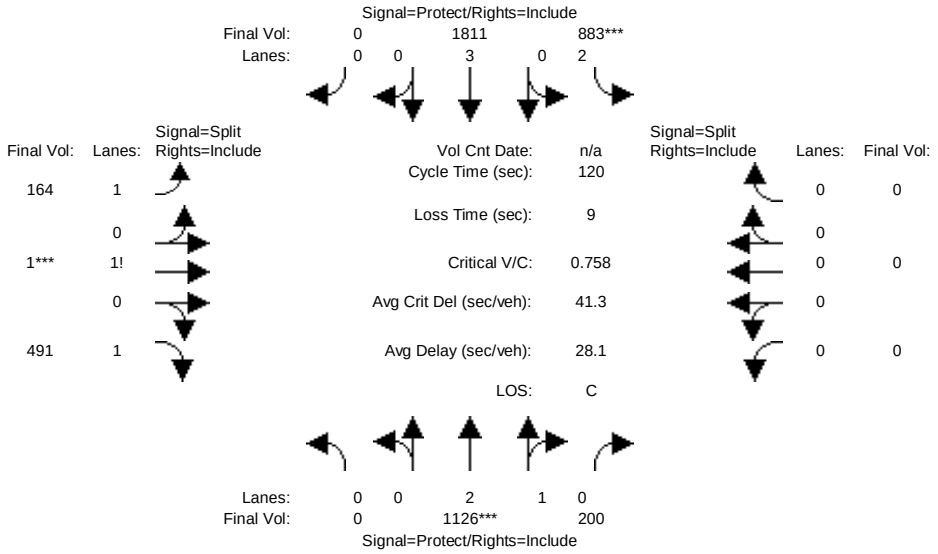
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #15: De Anza Boulevard/SR 85 Ramps South



Street Name:	De Anza Boulevard						SR 85 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1113	200	883	1796	0	164	1	491	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1113	200	883	1796	0	164	1	491	0	0	0
Added Vol:	0	13	0	0	15	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1126	200	883	1811	0	164	1	491	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	1126	200	883	1811	0	164	1	491	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1126	200	883	1811	0	164	1	491	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	1126	200	883	1811	0	164	1	491	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	0.00	2.53	0.47	2.00	3.00	0.00	1.25	0.01	1.74	0.00	0.00	0.00
Final Sat.:	0	4754	844	3150	5700	0	2196	5	3136	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.24	0.24	0.28	0.32	0.00	0.07	0.18	0.16	0.00	0.00	0.00
Crit Moves:		****		****				****				
Green Time:	0.0	37.5	37.5	44.4	81.9	0.0	29.1	29.1	29.1	0.0	0.0	0.0
Volume/Cap:	0.00	0.76	0.76	0.76	0.47	0.00	0.31	0.76	0.65	0.00	0.00	0.00
Uniform Del:	0.0	37.2	37.2	33.1	8.9	0.0	37.2	42.2	40.8	0.0	0.0	0.0
IncremntDel:	0.0	3.1	3.1	4.6	0.4	0.0	0.4	6.2	3.2	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	40.3	40.3	37.7	9.3	0.0	37.6	48.3	44.0	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	40.3	40.3	37.7	9.3	0.0	37.6	48.3	44.0	0.0	0.0	0.0
LOS by Move:	A	D	D	D+	A	A	D+	D	D	A	A	A
HCM2kAvgQ:	0	406	406	412	244	0	108	336	265	0	0	0

Note: Queue reported is the distance per lane in feet.

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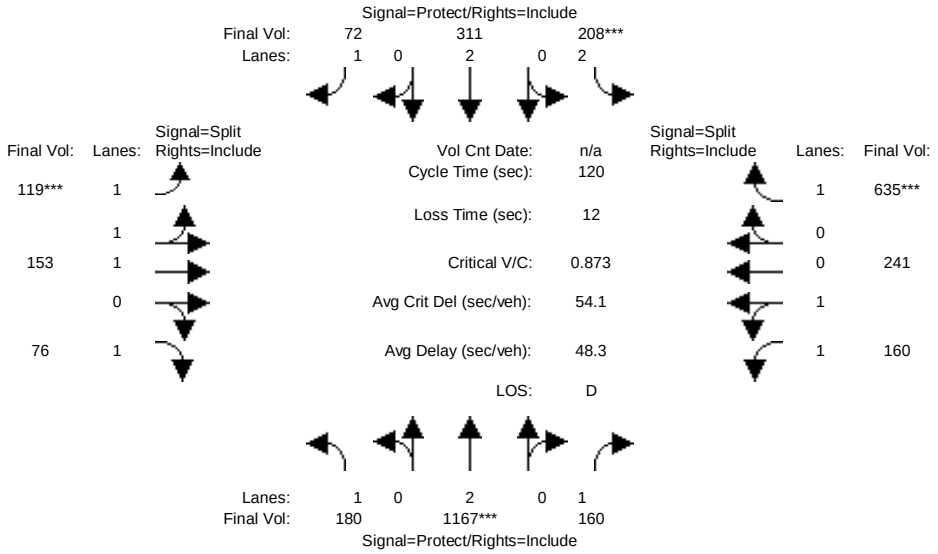
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #16: Saratoga Sunnyvale Road/Prospect Road



Street Name:	Saratoga Sunnyvale Road						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	180	1163	160	208	309	72	119	149	76	160	239	635
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	180	1163	160	208	309	72	119	149	76	160	239	635
Added Vol:	0	4	0	0	2	0	0	4	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	180	1167	160	208	311	72	119	153	76	160	241	635
User Adj:	1.00	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:	180	1167	160	208	311	72	119	153	76	160	241	635
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	180	1167	160	208	311	72	119	153	76	160	241	635
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	180	1167	160	208	311	72	119	153	76	160	241	635
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.93	0.98	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.35	1.65	1.00	1.00	1.00	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	2383	3063	1750	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.31	0.09	0.07	0.08	0.04	0.05	0.05	0.04	0.09	0.13	0.36
Crit Moves:		****		****			****					****
Green Time:	27.4	40.9	40.9	8.8	22.2	22.2	10.0	10.0	10.0	48.3	48.3	48.3
Volume/Cap:	0.45	0.90	0.27	0.90	0.44	0.22	0.60	0.60	0.52	0.23	0.32	0.90
Uniform Del:	39.8	37.6	28.7	55.2	43.4	41.5	53.1	53.1	52.7	23.6	24.5	33.6
IncremntDel:	3.6	10.3	1.1	38.2	2.0	1.6	5.7	5.7	12.7	0.3	0.6	16.9
InitQueuDel:	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:	43.4	47.9	29.8	93.4	45.4	43.1	58.8	58.8	65.4	23.9	25.2	50.5
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:	43.4	47.9	29.8	93.4	45.4	43.1	58.8	58.8	65.4	23.9	25.2	50.5
LOS by Move:	D	D	C	F	D	D	E+	E+	E	C	C	D
HCM2kAvgQ:	160	598	114	184	134	62	108	108	91	102	149	681

Note: Queue reported is the distance per lane in feet.

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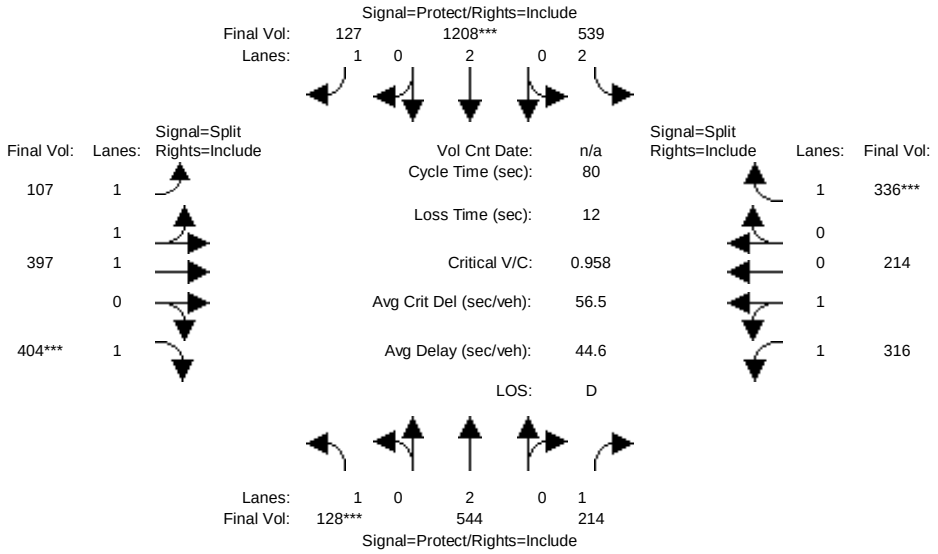
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #16: Saratoga Sunnyvale Road/Prospect Road



Street Name:	Saratoga Sunnyvale Road						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	128	531	214	539	1193	127	107	384	404	316	199	336
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	128	531	214	539	1193	127	107	384	404	316	199	336
Added Vol:	0	13	0	0	15	0	0	13	0	0	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	128	544	214	539	1208	127	107	397	404	316	214	336
User Adj:	1.00	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:	128	544	214	539	1208	127	107	397	404	316	214	336
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	128	544	214	539	1208	127	107	397	404	316	214	336
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	128	544	214	539	1208	127	107	397	404	316	214	336
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00	1.20	0.80	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	1750	3800	1750	2116	1433	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.14	0.12	0.17	0.32	0.07	0.06	0.10	0.23	0.15	0.15	0.19
Crit Moves:	****				****				****			****
Green Time:	7.0	15.1	15.1	18.1	26.2	26.2	19.0	19.0	19.0	15.8	15.8	15.8
Volume/Cap:	0.84	0.76	0.65	0.76	0.97	0.22	0.26	0.44	0.97	0.76	0.76	0.97
Uniform Del:	35.9	30.7	30.0	28.9	26.5	19.5	24.8	26.0	30.2	30.3	30.3	31.9
IncremntDel:	39.1	7.3	9.4	7.4	19.5	0.9	0.3	1.2	37.6	7.4	7.4	41.7
InitQueuDel:	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:	75.1	38.1	39.4	36.3	46.1	20.4	25.1	27.2	67.8	37.7	37.7	73.6
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:	75.1	38.1	39.4	36.3	46.1	20.4	25.1	27.2	67.8	37.7	37.7	73.6
LOS by Move:	E-	D+	D	D+	D	C+	C	C	E	D+	D+	E
HCM2kAvgQ:	146	206	161	234	522	63	61	113	408	212	212	354

Note: Queue reported is the distance per lane in feet.

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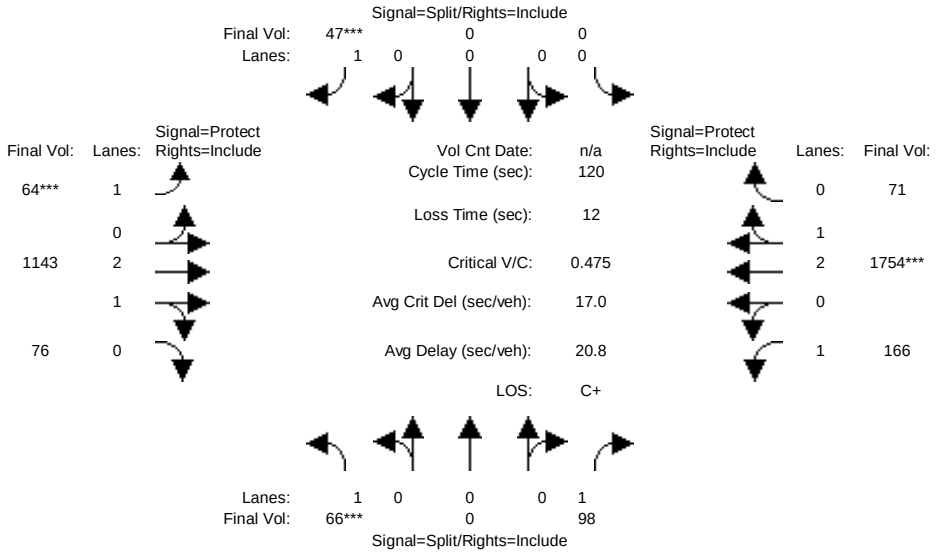
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #17: Stevens Creek Boulevard/Torre Avenue



Street Name:	Torre Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	66	0	98	0	0	47	64	1082	76	166	1717	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	66	0	98	0	0	47	64	1082	76	166	1717	71
Added Vol:	0	0	0	0	0	0	0	61	0	0	37	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	66	0	98	0	0	47	64	1143	76	166	1754	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:	66	0	98	0	0	47	64	1143	76	166	1754	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	0	98	0	0	47	64	1143	76	166	1754	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:	66	0	98	0	0	47	64	1143	76	166	1754	71
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	0.00	1.00	0.00	0.00	1.00	1.00	2.81	0.19	1.00	2.88	0.12
Final Sat.:	1750	0	1750	0	0	1750	1750	5250	349	1750	5382	218
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.06	0.00	0.00	0.03	0.04	0.22	0.22	0.09	0.33	0.33
Crit Moves:	****					****	****				****	
Green Time:	14.2	0.0	14.2	0.0	0.0	10.0	8.5	58.4	58.4	25.4	75.4	75.4
Volume/Cap:	0.32	0.00	0.47	0.00	0.00	0.32	0.52	0.45	0.45	0.45	0.52	0.52
Uniform Del:	48.5	0.0	49.4	0.0	0.0	51.8	53.8	20.2	20.2	41.2	12.3	12.3
IncremntDel:	4.0	0.0	7.6	0.0	0.0	5.8	14.7	0.5	0.5	3.9	0.6	0.6
InitQueuDel:	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	52.5	0.0	57.1	0.0	0.0	57.6	68.5	20.7	20.7	45.0	12.9	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:	52.5	0.0	57.1	0.0	0.0	57.6	68.5	20.7	20.7	45.0	12.9	12.9
LOS by Move:	D-	A	E+	A	A	E+	E	C+	C+	D	B	B
HCM2kAvgQ:	66	0	104	0	0	52	80	246	246	150	311	311

Note: Queue reported is the distance per lane in feet.

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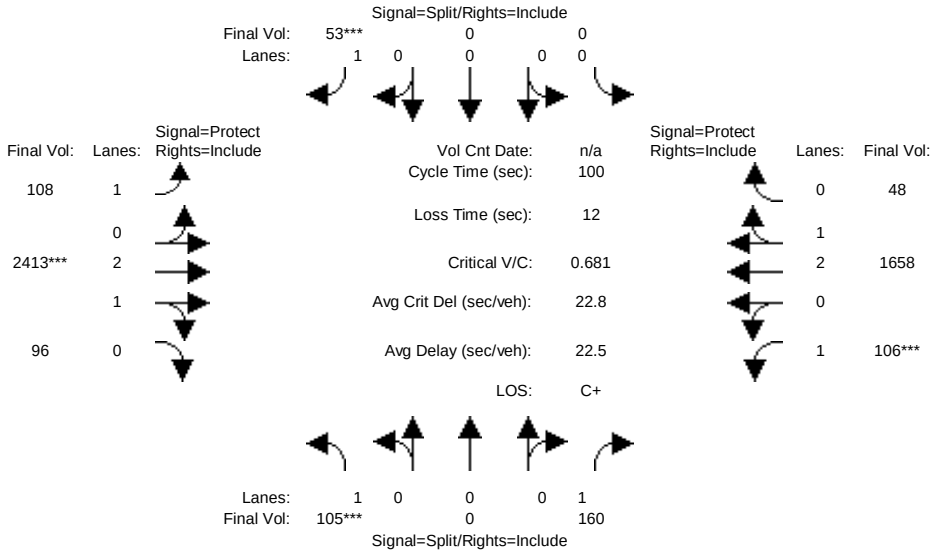
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #17: Stevens Creek Boulevard/Torre Avenue



Street Name:	Torre Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	105	0	160	0	0	53	108	2205	96	106	1433	48
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	105	0	160	0	0	53	108	2205	96	106	1433	48
Added Vol:	0	0	0	0	0	0	0	208	0	0	225	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	105	0	160	0	0	53	108	2413	96	106	1658	48
User Adj:	1.00	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:	105	0	160	0	0	53	108	2413	96	106	1658	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	105	0	160	0	0	53	108	2413	96	106	1658	48
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	105	0	160	0	0	53	108	2413	96	106	1658	48
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	0.00	1.00	0.00	0.00	1.00	1.00	2.88	0.12	1.00	2.91	0.09
Final Sat.:	1750	0	1750	0	0	1750	1750	5385	214	1750	5442	158
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.09	0.00	0.00	0.03	0.06	0.45	0.45	0.06	0.30	0.30
Crit Moves:	****					****		****		****		
Green Time:	13.4	0.0	13.4	0.0	0.0	10.0	12.1	56.9	56.9	7.7	52.5	52.5
Volume/Cap:	0.45	0.00	0.68	0.00	0.00	0.30	0.51	0.79	0.79	0.79	0.58	0.58
Uniform Del:	39.9	0.0	41.2	0.0	0.0	41.8	41.2	16.8	16.8	45.4	16.2	16.2
IncremntDel:	6.0	0.0	14.8	0.0	0.0	4.4	8.6	2.1	2.1	36.0	0.8	0.8
InitQueuDel:	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	45.9	0.0	56.0	0.0	0.0	46.2	49.8	18.9	18.9	81.4	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:	45.9	0.0	56.0	0.0	0.0	46.2	49.8	18.9	18.9	81.4	17.1	17.1
LOS by Move:	D	A	E+	A	A	D	D	B-	B-	F	B	B
HCM2kAvgQ:	92	0	160	0	0	48	101	545	545	137	308	308

Note: Queue reported is the distance per lane in feet.

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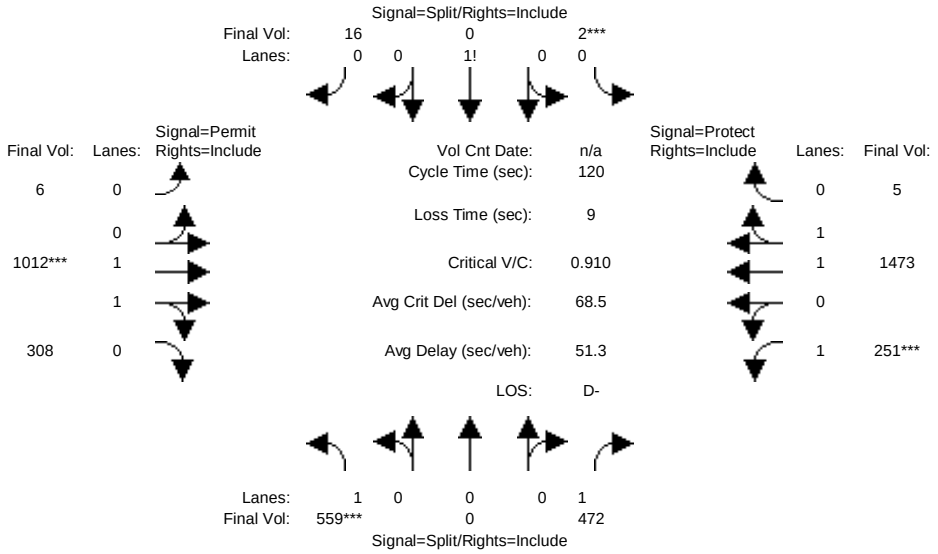
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #18: Homestead Road/Blaney Avenue



Street Name:	Homestead Road						Blaney Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	553	0	468	2	0	16	6	1012	298	245	1473	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:	553	0	468	2	0	16	6	1012	298	245	1473	5
Added Vol:	6	0	4	0	0	0	0	0	10	6	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	559	0	472	2	0	16	6	1012	308	251	1473	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:	559	0	472	2	0	16	6	1012	308	251	1473	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	559	0	472	2	0	16	6	1012	308	251	1473	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:	559	0	472	2	0	16	6	1012	308	251	1473	5
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.97	0.95
Lanes:	1.00	0.00	1.00	0.11	0.00	0.89	0.01	1.53	0.46	1.00	1.99	0.01
Final Sat.:	1750	0	1750	194	0	1556	16	2748	836	1750	3687	13
Capacity Analysis Module:												
Vol/Sat:	0.32	0.00	0.27	0.01	0.00	0.01	0.37	0.37	0.37	0.14	0.40	0.40
Crit Moves:	****			****				****		****		
Green Time:	38.8	0.0	38.8	10.0	0.0	10.0	44.8	44.8	44.8	17.4	62.2	62.2
Volume/Cap:	0.99	0.00	0.83	0.12	0.00	0.12	0.99	0.99	0.99	0.99	0.77	0.77
Uniform Del:	40.4	0.0	37.6	50.9	0.0	50.9	37.3	37.3	37.3	51.2	23.2	23.2
IncremntDel:	34.9	0.0	13.5	1.7	0.0	1.7	21.8	21.8	21.8	53.4	3.1	3.1
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	75.2	0.0	51.1	52.7	0.0	52.7	59.1	59.1	59.1	104.5	26.3	26.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	75.2	0.0	51.1	52.7	0.0	52.7	59.1	59.1	59.1	104.5	26.3	26.3
LOS by Move:	E-	A	D-	D-	A	D-	E+	E+	E+	F	C	C
HCM2kAvgQ:	709	0	492	19	0	19	799	799	799	367	583	583

Note: Queue reported is the distance per lane in feet.

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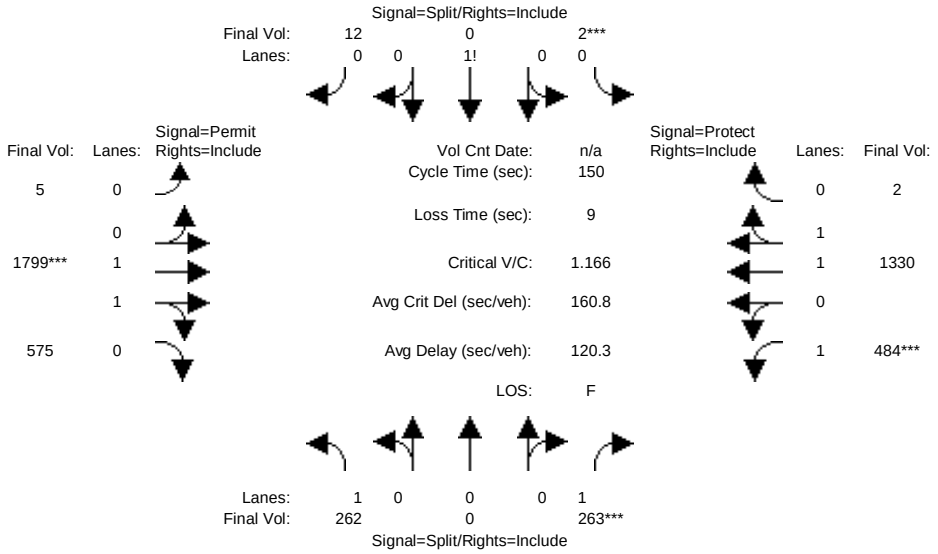
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #18: Homestead Road/Blaney Avenue



Street Name:	Homestead Road						Blaney Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	0	10	10	10	10	10	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	226	0	241	2	0	12	5	1799	541	464	1330	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	226	0	241	2	0	12	5	1799	541	464	1330	2
Added Vol:	36	0	22	0	0	0	0	0	34	20	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	262	0	263	2	0	12	5	1799	575	484	1330	2
User Adj:	1.00	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:	262	0	263	2	0	12	5	1799	575	484	1330	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	262	0	263	2	0	12	5	1799	575	484	1330	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	262	0	263	2	0	12	5	1799	575	484	1330	2
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.97	0.95
Lanes:	1.00	0.00	1.00	0.14	0.00	0.86	0.01	1.51	0.48	1.00	1.99	0.01
Final Sat.:	1750	0	1750	250	0	1500	8	2722	870	1750	3694	6
Capacity Analysis Module:												
Vol/Sat:	0.15	0.00	0.15	0.01	0.00	0.01	0.66	0.66	0.66	0.28	0.36	0.36
Crit Moves:			****	****				****		****		
Green Time:	18.1	0.0	18.1	10.0	0.0	10.0	79.6	79.6	79.6	33.3	113	112.9
Volume/Cap:	1.24	0.00	1.25	0.12	0.00	0.12	1.25	1.25	1.25	1.25	0.48	0.48
Uniform Del:	65.9	0.0	65.9	65.9	0.0	65.9	35.2	35.2	35.2	58.3	7.2	7.2
IncremntDel:	141.9	0.0	143.7	2.1	0.0	2.1	115.0	115	115.0	130.4	0.6	0.6
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	207.8	0.0	209.6	68.0	0.0	68.0	150.2	150	150.2	188.7	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:	207.8	0.0	209.6	68.0	0.0	68.0	150.2	150	150.2	188.7	7.8	7.8
LOS by Move:	F	A	F	E	A	E	F	F	F	F	A	A
HCM2kAvgQ:	555	0	559	18	0	18	2192	2192	2192	968	298	298

Note: Queue reported is the distance per lane in feet.

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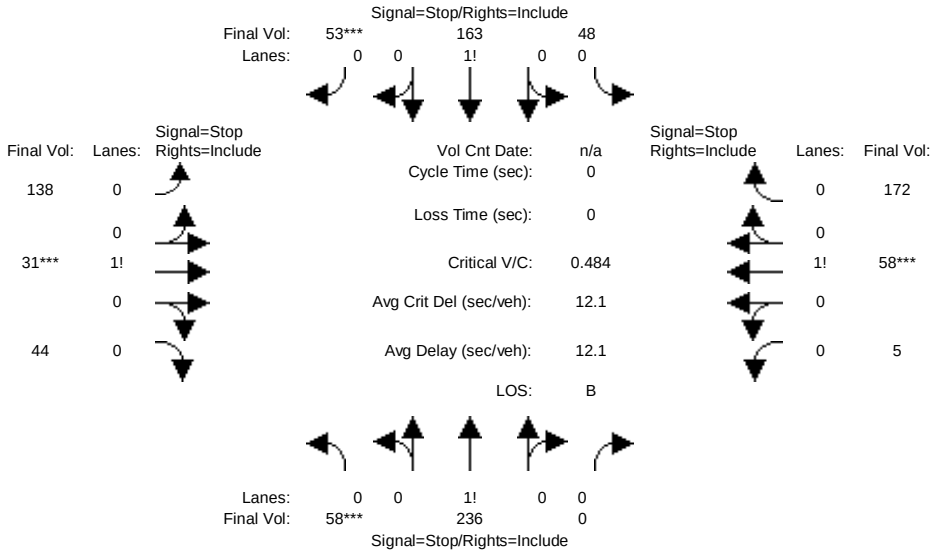
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #19: Blaney Avenue/Merritt Drive



Street Name:	Blaney Avenue						Merritt Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	58	226	0	48	147	53	138	31	44	5	58	172
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	58	226	0	48	147	53	138	31	44	5	58	172
Added Vol:	0	10	0	0	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	58	236	0	48	163	53	138	31	44	5	58	172
User Adj:	1.00	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:	58	236	0	48	163	53	138	31	44	5	58	172
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	236	0	48	163	53	138	31	44	5	58	172
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	58	236	0	48	163	53	138	31	44	5	58	172
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.20	0.80	0.00	0.18	0.62	0.20	0.65	0.14	0.21	0.02	0.25	0.73
Final Sat.:	120	488	0	111	377	122	369	83	118	13	152	451
Capacity Analysis Module:												
Vol/Sat:	0.48	0.48	xxxx	0.43	0.43	0.43	0.37	0.37	0.37	0.38	0.38	0.38
Crit Moves:	****					****		****			****	
Delay/Veh:	13.1	13.1	0.0	12.2	12.2	12.2	11.7	11.7	11.7	11.1	11.1	11.1
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
AdjDel/Veh:	13.1	13.1	0.0	12.2	12.2	12.2	11.7	11.7	11.7	11.1	11.1	11.1
LOS by Move:	B	B	*	B	B	B	B	B	B	B	B	B
ApproachDel:	13.1			12.2			11.7			11.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	13.1			12.2			11.7			11.1		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	19.3	19.3	19.3	15.6	15.6	15.6	11.8	11.8	11.8	12.0	12.0	12.0

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #19 Blaney Avenue/Merritt Drive

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 1	0	0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0
Initial Vol:	58	236	0	48	163	53	138	31	44	5	58	172

Major Street Volume: 558
Minor Approach Volume: 235
Minor Approach Volume Threshold: 375

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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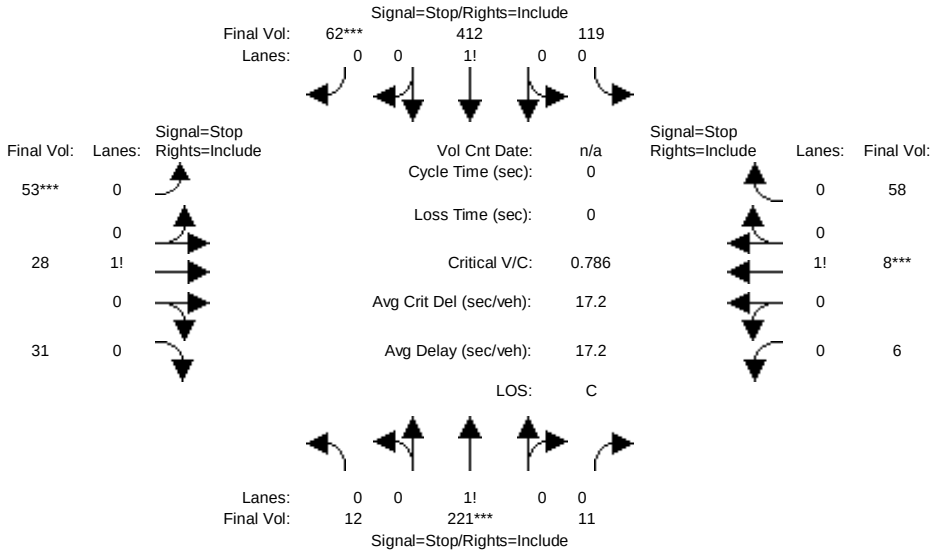
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #19: Blaney Avenue/Merritt Drive



Street Name:	Blaney Avenue						Merritt Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	12	163	11	119	358	62	53	28	31	6	8	58
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	163	11	119	358	62	53	28	31	6	8	58
Added Vol:	0	58	0	0	54	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	221	11	119	412	62	53	28	31	6	8	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:	12	221	11	119	412	62	53	28	31	6	8	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	221	11	119	412	62	53	28	31	6	8	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:	12	221	11	119	412	62	53	28	31	6	8	58
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.05	0.91	0.04	0.20	0.70	0.10	0.47	0.25	0.28	0.08	0.11	0.81
Final Sat.:	33	611	30	151	524	79	264	139	154	48	64	464
Capacity Analysis Module:												
Vol/Sat:	0.36	0.36	0.36	0.79	0.79	0.79	0.20	0.20	0.20	0.13	0.13	0.13
Crit Moves:		****				****	****				****	
Delay/Veh:	10.8	10.8	10.8	22.1	22.1	22.1	10.2	10.2	10.2	9.2	9.2	9.2
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
AdjDel/Veh:	10.8	10.8	10.8	22.1	22.1	22.1	10.2	10.2	10.2	9.2	9.2	9.2
LOS by Move:	B	B	B	C	C	C	B	B	B	A	A	A
ApproachDel:		10.8			22.1			10.2			9.2	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.8			22.1			10.2			9.2	
LOS by Appr:		B			C			B			A	
AllWayAvgQ:	12.5	12.5	12.5	75.2	75.2	75.2	5.0	5.0	5.0	2.8	2.8	2.8

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #19 Blaney Avenue/Merritt Drive

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0
Initial Vol:	12	221	11	119	412	62	53	28	31	6	8	58

Major Street Volume: 837
Minor Approach Volume: 112
Minor Approach Volume Threshold: 267

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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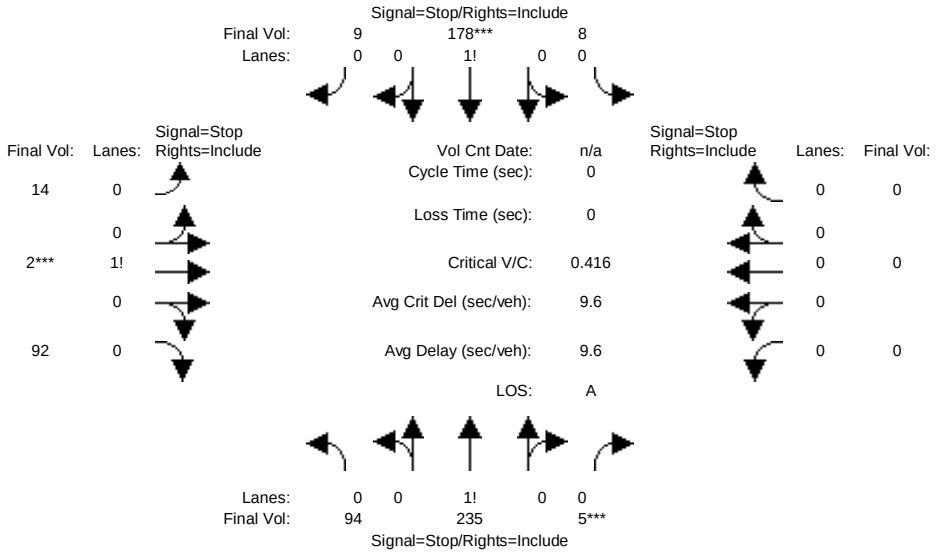
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #20: Blaney Avenue/Forest Avenue



Street Name:	Blaney Avenue						Forest Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	94	225	5	8	162	9	14	2	92	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	94	225	5	8	162	9	14	2	92	0	0	0
Added Vol:	0	10	0	0	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	94	235	5	8	178	9	14	2	92	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:	94	235	5	8	178	9	14	2	92	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	94	235	5	8	178	9	14	2	92	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:	94	235	5	8	178	9	14	2	92	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.28	0.71	0.01	0.04	0.91	0.05	0.13	0.02	0.85	0.00	0.00	0.00
Final Sat.:	226	565	12	32	714	36	95	14	623	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.42	0.42	0.42	0.25	0.25	0.25	0.15	0.15	0.15	xxxx	xxxx	xxxx
Crit Moves:			****		****			****				
Delay/Veh:	10.4	10.4	10.4	8.9	8.9	8.9	8.2	8.2	8.2	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
AdjDel/Veh:	10.4	10.4	10.4	8.9	8.9	8.9	8.2	8.2	8.2	0.0	0.0	0.0
LOS by Move:	B	B	B	A	A	A	A	A	A	*	*	*
ApproachDel:		10.4			8.9			8.2			xxxxxx	
Delay Adj:		1.00			1.00			1.00			xxxxx	
ApprAdjDel:		10.4			8.9			8.2			xxxxxx	
LOS by Appr:		B			A			A			*	
AllWayAvgQ:	16.7	16.7	16.7	7.7	7.7	7.7	3.6	3.6	3.6	0.0	0.0	0.0

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #20 Blaney Avenue/Forest Avenue

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1!	0		0 0 1!	0		0 0 1!	0		0 0 0	0	0
Initial Vol:	94	235	5	8	178	9	14	2	92	0	0	0

Major Street Volume: 529
Minor Approach Volume: 108
Minor Approach Volume Threshold: 389

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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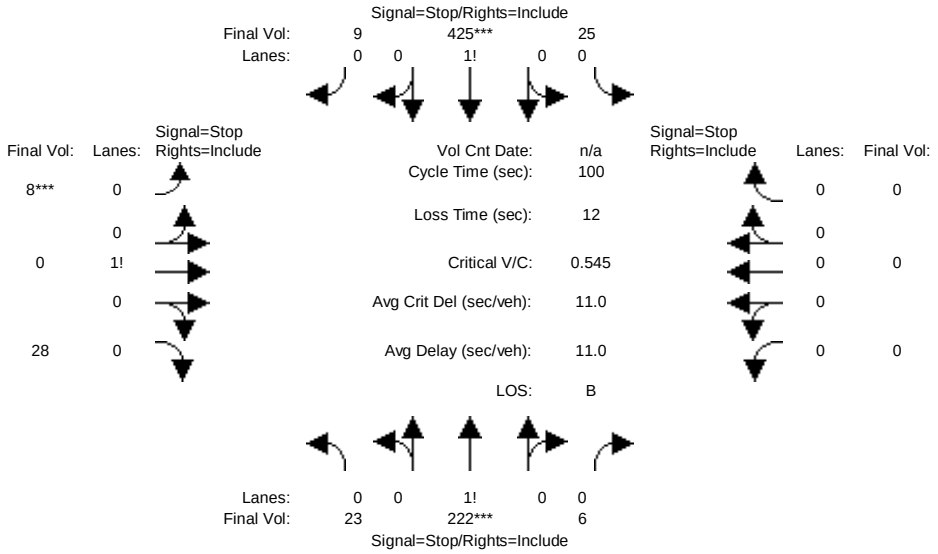
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #20: Blaney Avenue/Forest Avenue



Street Name:	Blaney Avenue						Forest Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	23	164	6	25	371	9	8	0	28	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	23	164	6	25	371	9	8	0	28	0	0	0
Added Vol:	0	58	0	0	54	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	23	222	6	25	425	9	8	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:	23	222	6	25	425	9	8	0	28	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	222	6	25	425	9	8	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
FinalVolume:	23	222	6	25	425	9	8	0	28	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.09	0.89	0.02	0.05	0.93	0.02	0.22	0.00	0.78	0.00	0.00	0.00
Final Sat.:	73	705	19	46	779	17	146	0	511	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.31	0.31	0.31	0.55	0.55	0.55	0.05	xxxx	0.05	xxxx	xxxx	xxxx
Crit Moves:		****			****		****					
Delay/Veh:	9.4	9.4	9.4	12.1	12.1	12.1	8.1	0.0	8.1	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
AdjDel/Veh:	9.4	9.4	9.4	12.1	12.1	12.1	8.1	0.0	8.1	0.0	0.0	0.0
LOS by Move:	A	A	A	B	B	B	A	*	A	*	*	*
ApproachDel:		9.4			12.1			8.1			xxxxxx	
Delay Adj:		1.00			1.00			1.00			xxxxx	
ApprAdjDel:		9.4			12.1			8.1			xxxxxx	
LOS by Appr:		A			B			A			*	
AllWayAvgQ:	10.9	10.9	10.9	28.5	28.5	28.5	1.1	1.1	1.1	0.0	0.0	0.0

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #20 Blaney Avenue/Forest Avenue

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1!	0		0 0 1!	0		0 0 1!	0		0 0	0	0
Initial Vol:	23	222	6	25	425	9	8	0	28	0	0	0

Major Street Volume: 710
Minor Approach Volume: 36
Minor Approach Volume Threshold: 311

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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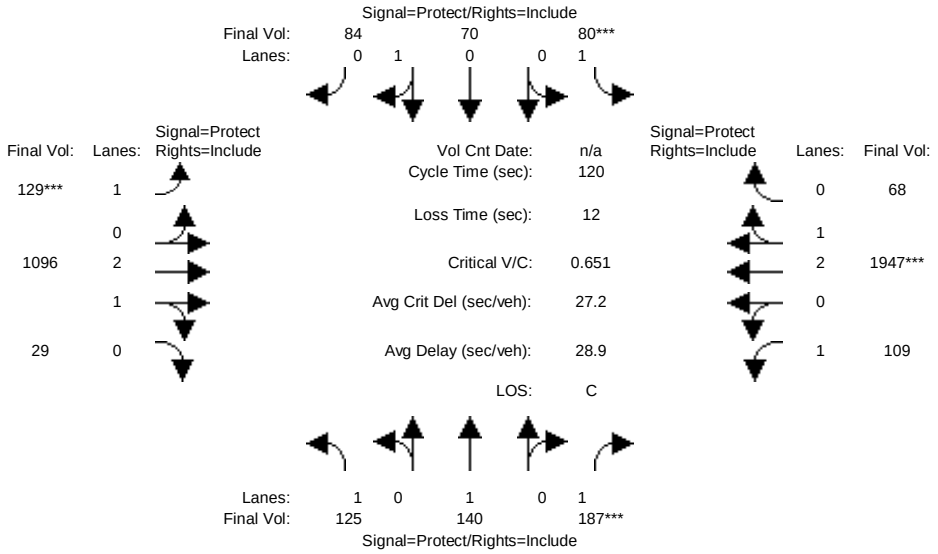
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #21: Stevens Creek Boulevard/Blaney Avenue



Street Name:	Blaney Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	125	140	179	64	70	84	129	1033	29	104	1908	58
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	125	140	179	64	70	84	129	1033	29	104	1908	58
Added Vol:	0	0	8	16	0	0	0	63	0	5	39	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	125	140	187	80	70	84	129	1096	29	109	1947	68
User Adj:	1.00	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:	125	140	187	80	70	84	129	1096	29	109	1947	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	125	140	187	80	70	84	129	1096	29	109	1947	68
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	125	140	187	80	70	84	129	1096	29	109	1947	68
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	1.00	1.00	1.00	0.45	0.55	1.00	2.92	0.08	1.00	2.90	0.10
Final Sat.:	1750	1900	1750	1750	818	982	1750	5455	144	1750	5411	189
Capacity Analysis Module:												
Vol/Sat:	0.07	0.07	0.11	0.05	0.09	0.09	0.07	0.20	0.20	0.06	0.36	0.36
Crit Moves:			****	****			****				****	
Green Time:	12.8	19.7	19.7	8.4	15.3	15.3	13.6	61.0	61.0	18.9	66.3	66.3
Volume/Cap:	0.67	0.45	0.65	0.65	0.67	0.67	0.65	0.40	0.40	0.40	0.65	0.65
Uniform Del:	51.6	45.3	46.9	54.4	49.9	49.9	50.9	18.2	18.2	45.4	18.8	18.8
IncremntDel:	17.5	4.6	10.9	23.8	14.5	14.5	15.4	0.4	0.4	4.2	1.1	1.1
InitQueuDel:	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:	69.1	49.9	57.9	78.1	64.4	64.4	66.4	18.6	18.6	49.6	19.8	19.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	69.1	49.9	57.9	78.1	64.4	64.4	66.4	18.6	18.6	49.6	19.8	19.8
LOS by Move:	E	D	E+	E-	E	E	E	B-	B-	D	B-	B-
HCM2kAvgQ:	151	125	200	108	173	173	152	212	212	104	443	443

Note: Queue reported is the distance per lane in feet.

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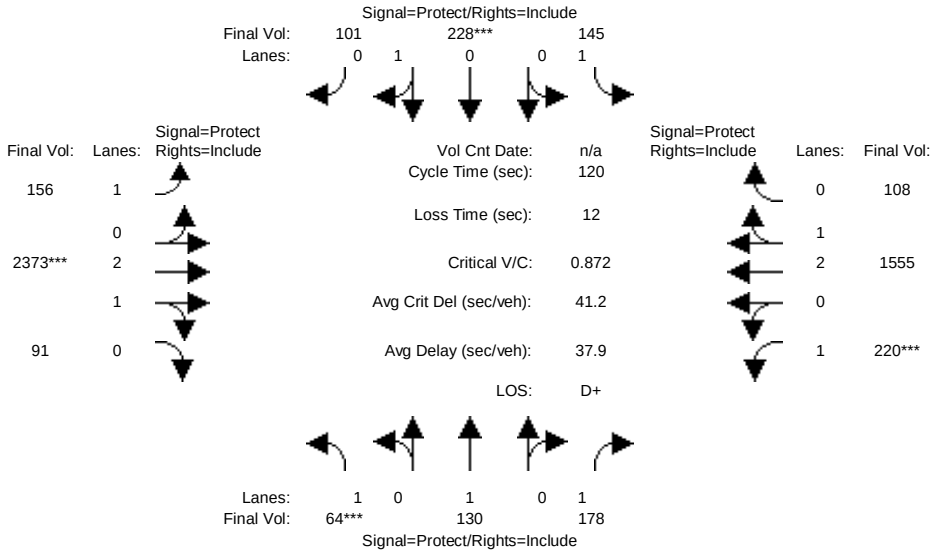
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #21: Stevens Creek Boulevard/Blaney Avenue



Street Name:	Blaney Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	64	130	151	91	228	101	156	2159	91	191	1323	50
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	64	130	151	91	228	101	156	2159	91	191	1323	50
Added Vol:	0	0	27	54	0	0	0	214	0	29	232	58
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	64	130	178	145	228	101	156	2373	91	220	1555	108
User Adj:	1.00	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	130	178	145	228	101	156	2373	91	220	1555	108
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	64	130	178	145	228	101	156	2373	91	220	1555	108
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	130	178	145	228	101	156	2373	91	220	1555	108
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	1.00	1.00	1.00	0.69	0.31	1.00	2.89	0.11	1.00	2.80	0.20
Final Sat.:	1750	1900	1750	1750	1247	553	1750	5393	207	1750	5236	364
Capacity Analysis Module:												
Vol/Sat:	0.04	0.07	0.10	0.08	0.18	0.18	0.09	0.44	0.44	0.13	0.30	0.30
Crit Moves:	****				****			****			****	
Green Time:	7.0	17.4	17.4	14.2	24.7	24.7	17.6	59.4	59.4	17.0	58.7	58.7
Volume/Cap:	0.63	0.47	0.70	0.70	0.89	0.89	0.61	0.89	0.89	0.89	0.61	0.61
Uniform Del:	55.2	47.0	48.8	50.8	46.3	46.3	47.9	27.3	27.3	50.6	22.3	22.3
IncremntDel:	25.7	5.7	14.8	17.9	25.8	25.8	10.2	4.8	4.8	34.5	1.0	1.0
InitQueuDel:	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:	80.9	52.7	63.6	68.7	72.1	72.1	58.2	32.1	32.1	85.1	23.3	23.3
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:	80.9	52.7	63.6	68.7	72.1	72.1	58.2	32.1	32.1	85.1	23.3	23.3
LOS by Move:	F	D-	E	E	E	E	E+	C-	C-	F	C	C
HCM2kAvgQ:	90	121	202	174	392	392	167	769	769	293	379	379

Note: Queue reported is the distance per lane in feet.

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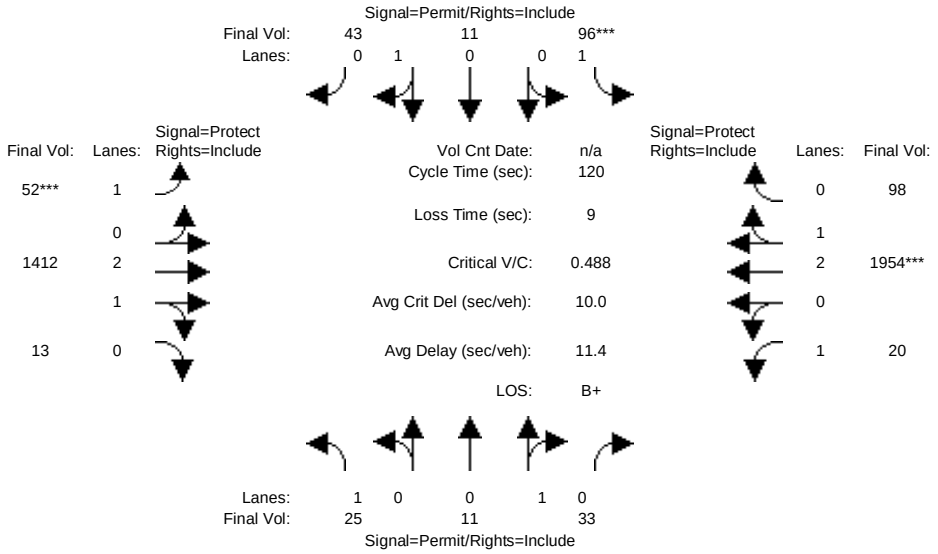
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #22: Stevens Creek Boulevard/Portal Avenue



Street Name:	Portal Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	25	11	33	96	11	43	52	1326	13	20	1901	98
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	11	33	96	11	43	52	1326	13	20	1901	98
Added Vol:	0	0	0	0	0	0	0	86	0	0	53	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	25	11	33	96	11	43	52	1412	13	20	1954	98
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	25	11	33	96	11	43	52	1412	13	20	1954	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	11	33	96	11	43	52	1412	13	20	1954	98
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	25	11	33	96	11	43	52	1412	13	20	1954	98
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	0.25	0.75	1.00	0.20	0.80	1.00	2.97	0.03	1.00	2.85	0.15
Final Sat.:	1750	450	1350	1750	367	1433	1750	5549	51	1750	5332	267
Capacity Analysis Module:												
Vol/Sat:	0.01	0.02	0.02	0.05	0.03	0.03	0.03	0.25	0.25	0.01	0.37	0.37
Crit Moves:				****			****				****	
Green Time:	13.5	13.5	13.5	13.5	13.5	13.5	7.3	79.3	79.3	18.2	90.2	90.2
Volume/Cap:	0.13	0.22	0.22	0.49	0.27	0.27	0.49	0.38	0.38	0.08	0.49	0.49
Uniform Del:	47.9	48.4	48.4	50.0	48.7	48.7	54.5	9.3	9.3	43.7	5.8	5.8
IncremntDel:	1.3	2.5	2.5	8.4	3.2	3.2	15.1	0.3	0.3	0.6	0.4	0.4
InitQueuDel:	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:	49.3	50.9	50.9	58.4	51.9	51.9	69.6	9.6	9.6	44.2	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:	49.3	50.9	50.9	58.4	51.9	51.9	69.6	9.6	9.6	44.2	6.3	6.3
LOS by Move:	D	D	D	E+	D-	D-	E	A	A	D	A	A
HCM2kAvgQ:	24	42	42	104	52	52	67	199	199	18	251	251

Note: Queue reported is the distance per lane in feet.

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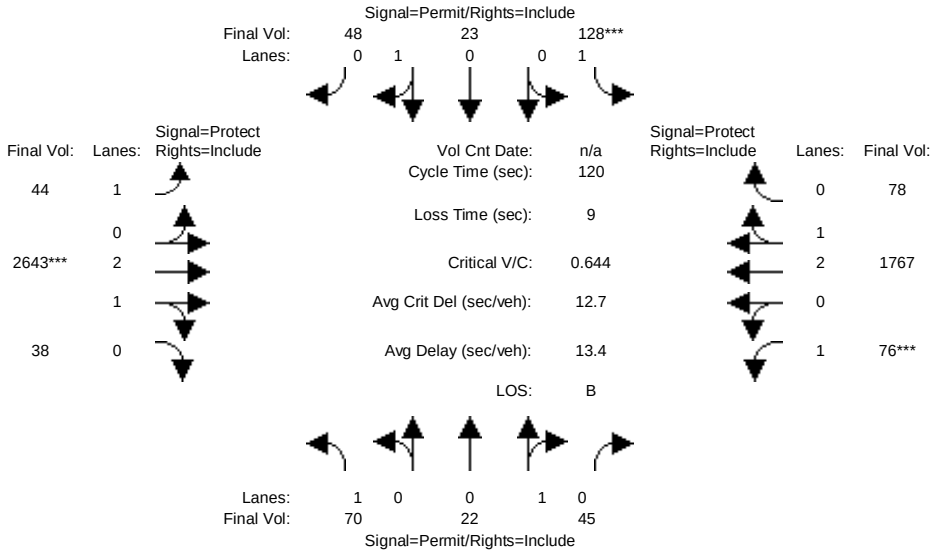
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #22: Stevens Creek Boulevard/Portal Avenue



Street Name:	Portal Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	70	22	45	128	23	48	44	2348	38	76	1448	78
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	70	22	45	128	23	48	44	2348	38	76	1448	78
Added Vol:	0	0	0	0	0	0	0	295	0	0	319	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	70	22	45	128	23	48	44	2643	38	76	1767	78
User Adj:	1.00	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:	70	22	45	128	23	48	44	2643	38	76	1767	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	70	22	45	128	23	48	44	2643	38	76	1767	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	70	22	45	128	23	48	44	2643	38	76	1767	78
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	0.33	0.67	1.00	0.32	0.68	1.00	2.96	0.04	1.00	2.87	0.13
Final Sat.:	1750	591	1209	1750	583	1217	1750	5521	79	1750	5363	237
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.04	0.07	0.04	0.04	0.03	0.48	0.48	0.04	0.33	0.33
Crit Moves:				****				****		****		
Green Time:	13.6	13.6	13.6	13.6	13.6	13.6	14.6	89.3	89.3	8.1	82.7	82.7
Volume/Cap:	0.35	0.33	0.33	0.64	0.35	0.35	0.21	0.64	0.64	0.64	0.48	0.48
Uniform Del:	49.1	49.0	49.0	50.9	49.1	49.1	47.4	7.6	7.6	54.5	8.6	8.6
IncremntDel:	4.8	4.2	4.2	15.0	4.6	4.6	2.2	0.8	0.8	24.0	0.4	0.4
InitQueuDel:	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:	53.9	53.2	53.2	65.8	53.7	53.7	49.6	8.3	8.3	78.5	9.1	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:	53.9	53.2	53.2	65.8	53.7	53.7	49.6	8.3	8.3	78.5	9.1	9.1
LOS by Move:	D-	D-	D-	E	D-	D-	D	A	A	E-	A	A
HCM2kAvgQ:	72	66	66	150	71	71	42	416	416	103	264	264

Note: Queue reported is the distance per lane in feet.

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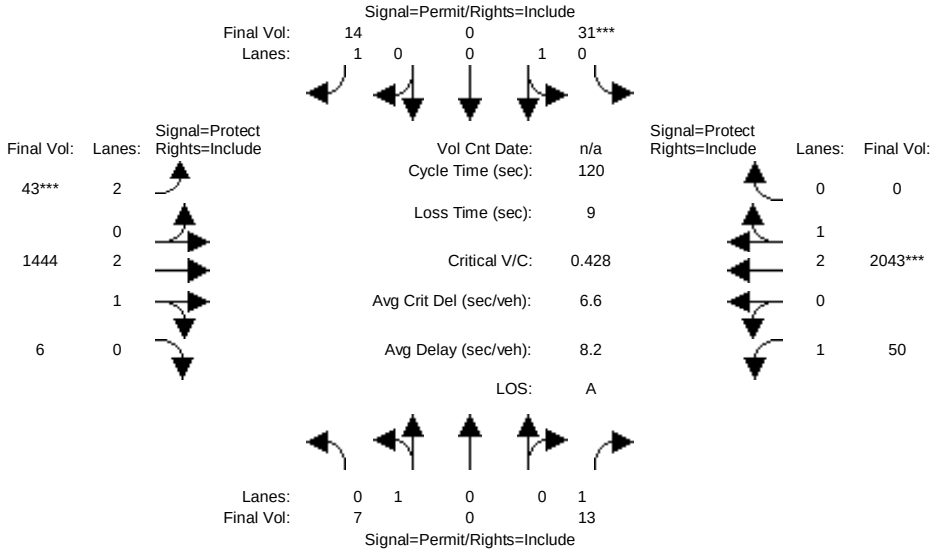
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #23: Stevens Creek Boulevard/Perimeter Road



Street Name:	Perimeter Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	7	0	13	31	0	14	43	1444	6	50	2043	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:	7	0	13	31	0	14	43	1444	6	50	2043	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:	7	0	13	31	0	14	43	1444	6	50	2043	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:	7	0	13	31	0	14	43	1444	6	50	2043	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	0	13	31	0	14	43	1444	6	50	2043	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:	7	0	13	31	0	14	43	1444	6	50	2043	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.95	0.95	0.92	0.83	0.98	0.95	0.92	0.98	0.92
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	2.00	2.99	0.01	1.00	3.00	0.00
Final Sat.:	1800	0	1750	1800	0	1750	3150	5577	23	1750	5600	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.01	0.02	0.00	0.01	0.01	0.26	0.26	0.03	0.36	0.00
Crit Moves:				****			****				****	
Green Time:	10.0	0.0	10.0	10.0	0.0	10.0	7.0	82.4	82.4	18.6	94.0	0.0
Volume/Cap:	0.05	0.00	0.09	0.21	0.00	0.10	0.23	0.38	0.38	0.18	0.47	0.00
Uniform Del:	50.6	0.0	50.8	51.3	0.0	50.8	53.9	7.9	7.9	44.1	4.4	0.0
IncremntDel:	0.6	0.0	1.2	3.1	0.0	1.3	3.0	0.3	0.3	1.5	0.4	0.0
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	51.2	0.0	52.0	54.4	0.0	52.1	56.9	8.2	8.2	45.6	4.8	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	51.2	0.0	52.0	54.4	0.0	52.1	56.9	8.2	8.2	45.6	4.8	0.0
LOS by Move:	D-	A	D-	D-	A	D-	E+	A	A	D	A	A
HCM2kAvgQ:	7	0	13	32	0	14	28	188	188	40	204	0

Note: Queue reported is the distance per lane in feet.

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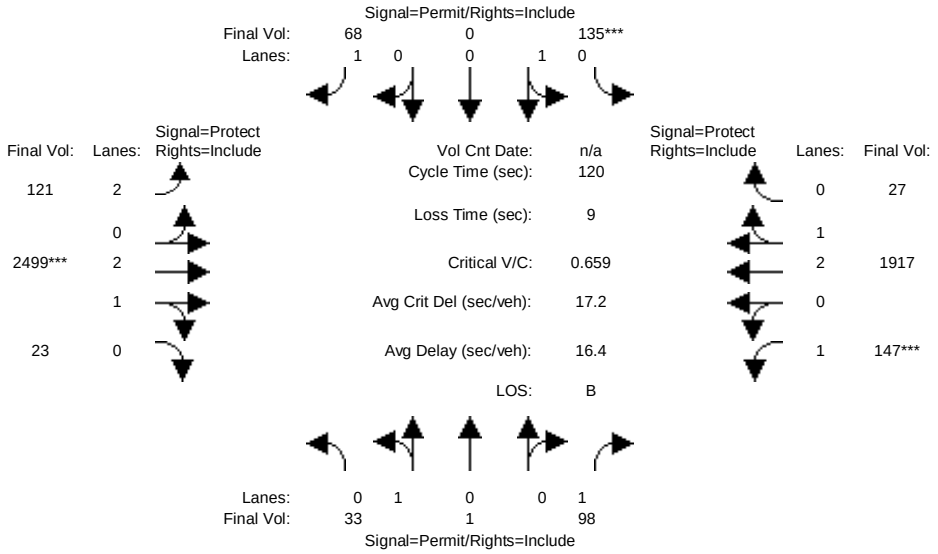
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #23: Stevens Creek Boulevard/Perimeter Road



Street Name:	Perimeter Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	33	1	98	135	0	68	121	2499	23	147	1917	27
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	33	1	98	135	0	68	121	2499	23	147	1917	27
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:	33	1	98	135	0	68	121	2499	23	147	1917	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:	33	1	98	135	0	68	121	2499	23	147	1917	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	1	98	135	0	68	121	2499	23	147	1917	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:	33	1	98	135	0	68	121	2499	23	147	1917	27
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.95	0.95	0.92	0.83	0.98	0.95	0.92	0.98	0.95
Lanes:	0.97	0.03	1.00	1.00	0.00	1.00	2.00	2.97	0.03	1.00	2.96	0.04
Final Sat.:	1747	53	1750	1800	0	1750	3150	5549	51	1750	5522	78
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.06	0.08	0.00	0.04	0.04	0.45	0.45	0.08	0.35	0.35
Crit Moves:				****				****		****		
Green Time:	13.7	13.7	13.7	13.7	0.0	13.7	14.0	82.0	82.0	15.3	83.3	83.3
Volume/Cap:	0.17	0.17	0.49	0.66	0.00	0.34	0.33	0.66	0.66	0.66	0.50	0.50
Uniform Del:	48.0	48.0	49.9	50.9	0.0	49.0	48.7	10.9	10.9	49.9	8.6	8.6
IncremntDel:	1.7	1.7	8.4	15.4	0.0	4.6	2.4	0.9	0.9	14.3	0.5	0.5
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	49.8	49.8	58.3	66.3	0.0	53.6	51.1	11.8	11.8	64.1	9.0	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:	49.8	49.8	58.3	66.3	0.0	53.6	51.1	11.8	11.8	64.1	9.0	9.0
LOS by Move:	D	D	E+	E	A	D-	D-	B+	B+	E	A	A
HCM2kAvgQ:	32	32	106	155	0	69	68	457	457	130	262	262

Note: Queue reported is the distance per lane in feet.

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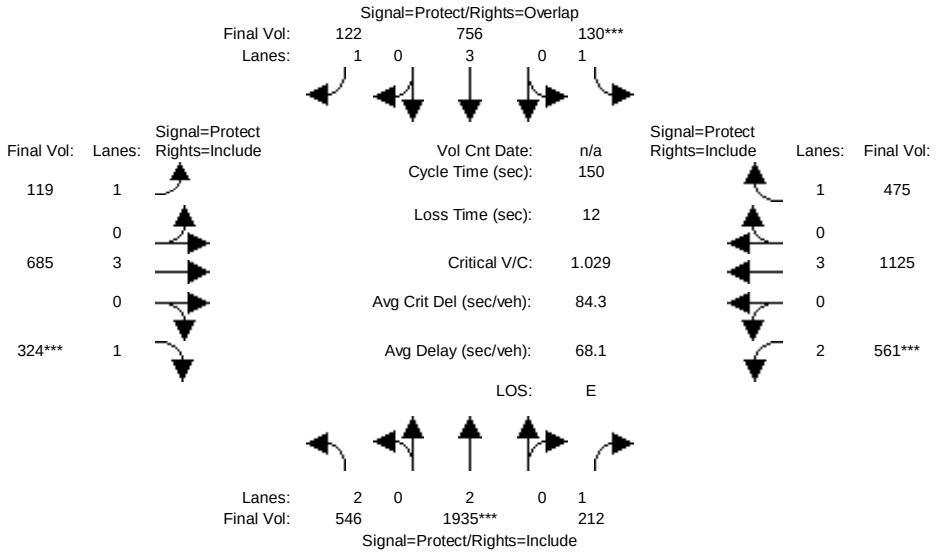
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #24: Wolfe Road/El Camino Real



Street Name:	Wolfe Road						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	532	1925	212	130	740	122	119	685	300	561	1125	475
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	532	1925	212	130	740	122	119	685	300	561	1125	475
Added Vol:	14	10	0	0	16	0	0	0	24	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	546	1935	212	130	756	122	119	685	324	561	1125	475
User Adj:	1.00	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:	546	1935	212	130	756	122	119	685	324	561	1125	475
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	546	1935	212	130	756	122	119	685	324	561	1125	475
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	546	1935	212	130	756	122	119	685	324	561	1125	475
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3150	3800	1750	1750	5700	1750	1750	5700	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.17	0.51	0.12	0.07	0.13	0.07	0.07	0.12	0.19	0.18	0.20	0.27
Crit Moves:		****		****					****	****		
Green Time:	48.2	74.2	74.2	10.8	36.9	47.5	10.6	27.0	27.0	26.0	42.3	42.3
Volume/Cap:	0.54	1.03	0.24	1.03	0.54	0.22	0.96	0.67	1.03	1.03	0.70	0.96
Uniform Del:	41.8	37.9	21.8	69.6	49.2	37.7	69.5	57.3	61.5	62.0	48.1	53.0
IncremntDel:	2.1	28.6	0.7	88.0	1.5	0.9	71.2	3.5	58.4	46.2	2.6	32.0
InitQueuDel:	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:	43.9	66.5	22.5	157.6	50.7	38.6	140.7	60.8	119.9	108.2	50.7	85.0
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:	43.9	66.5	22.5	157.6	50.7	38.6	140.7	60.8	119.9	108.2	50.7	85.0
LOS by Move:	D	E	C+	F	D	D+	F	E	F	F	D	F
HCM2kAvgQ:	310	1329	146	258	256	108	227	266	548	531	402	700

Note: Queue reported is the distance per lane in feet.

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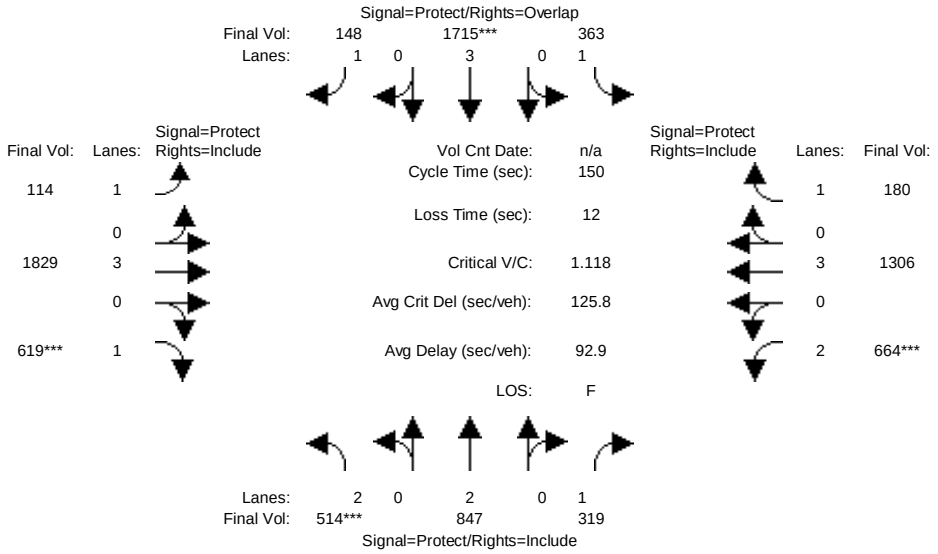
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #24: Wolfe Road/El Camino Real



Street Name:	Wolfe Road						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	427	789	319	363	1661	148	114	1829	539	664	1306	180
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	427	789	319	363	1661	148	114	1829	539	664	1306	180
Added Vol:	87	58	0	0	54	0	0	0	80	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	514	847	319	363	1715	148	114	1829	619	664	1306	180
User Adj:	1.00	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:	514	847	319	363	1715	148	114	1829	619	664	1306	180
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	514	847	319	363	1715	148	114	1829	619	664	1306	180
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	514	847	319	363	1715	148	114	1829	619	664	1306	180
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3150	3800	1750	1750	5700	1750	1750	5700	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.16	0.22	0.18	0.21	0.30	0.08	0.07	0.32	0.35	0.21	0.23	0.10
Crit Moves:	****				****				****	****		
Green Time:	21.9	32.2	32.2	30.0	40.4	57.1	16.8	47.5	47.5	28.3	59.0	59.0
Volume/Cap:	1.12	1.04	0.85	1.04	1.12	0.22	0.58	1.01	1.12	1.12	0.58	0.26
Uniform Del:	64.1	58.9	56.5	60.0	54.8	31.4	63.3	51.3	51.3	60.9	35.8	30.8
IncremntDel:	78.3	41.4	20.5	57.9	62.5	0.8	12.1	24.8	74.9	73.8	1.1	0.9
InitQueuDel:	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:	142.3	100	77.0	117.9	117	32.2	75.4	76.1	126.2	134.6	36.9	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:	142.3	100	77.0	117.9	117	32.2	75.4	76.1	126.2	134.6	36.9	31.7
LOS by Move:	F	F	E-	F	F	C-	E-	E-	F	F	D+	C
HCM2kAvgQ:	538	648	440	609	921	120	154	867	1065	672	391	147

Note: Queue reported is the distance per lane in feet.

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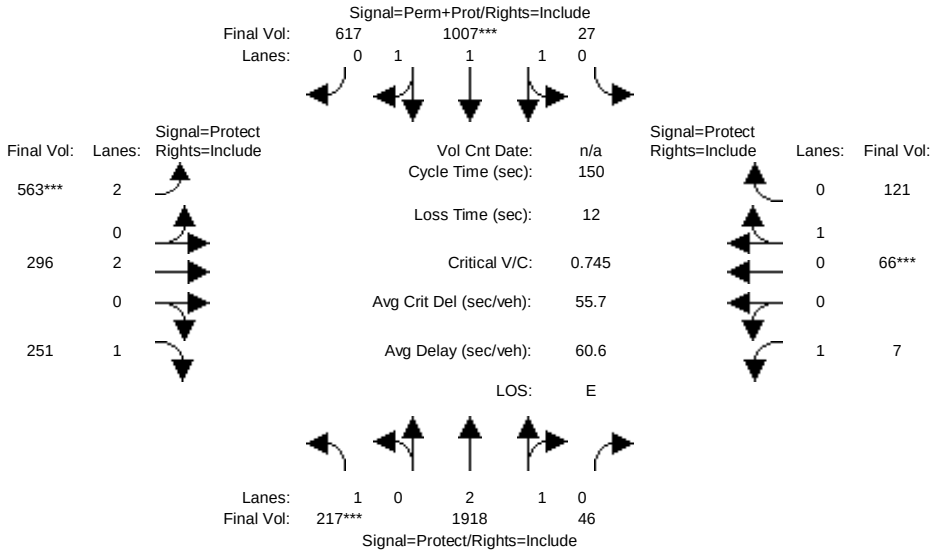
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #25: Wolfe Road/Fremont Avenue



Street Name:	Wolfe Road						Fremont Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	217	1894	46	27	968	617	563	296	251	7	66	121
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	217	1894	46	27	968	617	563	296	251	7	66	121
Added Vol:	0	24	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:	217	1918	46	27	1007	617	563	296	251	7	66	121
User Adj:	1.00	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:	217	1918	46	27	1007	617	563	296	251	7	66	121
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	217	1918	46	27	1007	617	563	296	251	7	66	121
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	217	1918	46	27	1007	617	563	296	251	7	66	121
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.95	0.98	0.95	0.83	1.00	0.92	0.92	0.95	0.95
Lanes:	1.00	2.93	0.07	0.05	1.95	1.00	2.00	2.00	1.00	1.00	0.35	0.65
Final Sat.:	1750	5469	131	97	3610	1800	3150	3800	1750	1750	635	1165
Capacity Analysis Module:												
Vol/Sat:	0.12	0.35	0.35	0.00	0.28	0.34	0.18	0.08	0.14	0.00	0.10	0.10
Crit Moves:	****				****		****				****	
Green Time:	25.3	53.1	53.1	45.2	69.9	69.9	27.0	32.3	32.3	10.5	15.7	15.7
Volume/Cap:	0.74	0.99	0.99	0.93	0.60	0.74	0.99	0.36	0.67	0.06	0.99	0.99
Uniform Del:	59.2	48.3	48.3	50.8	29.6	32.5	61.4	50.1	54.0	65.1	67.1	67.1
IncremntDel:	15.0	18.3	18.3	9.8	1.0	2.2	35.8	1.2	9.0	0.9	63.4	63.4
InitQueuDel:	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	66.6	66.6	60.5	30.6	34.7	97.2	51.4	63.0	66.0	130	130.5
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:	74.2	66.6	66.6	60.5	30.6	34.7	97.2	51.4	63.0	66.0	130	130.5
LOS by Move:	E	E	E	E	C	C-	F	D-	E	E	F	F
HCM2kAvgQ:	290	911	911	683	445	615	512	145	305	9	327	327

Note: Queue reported is the distance per lane in feet.

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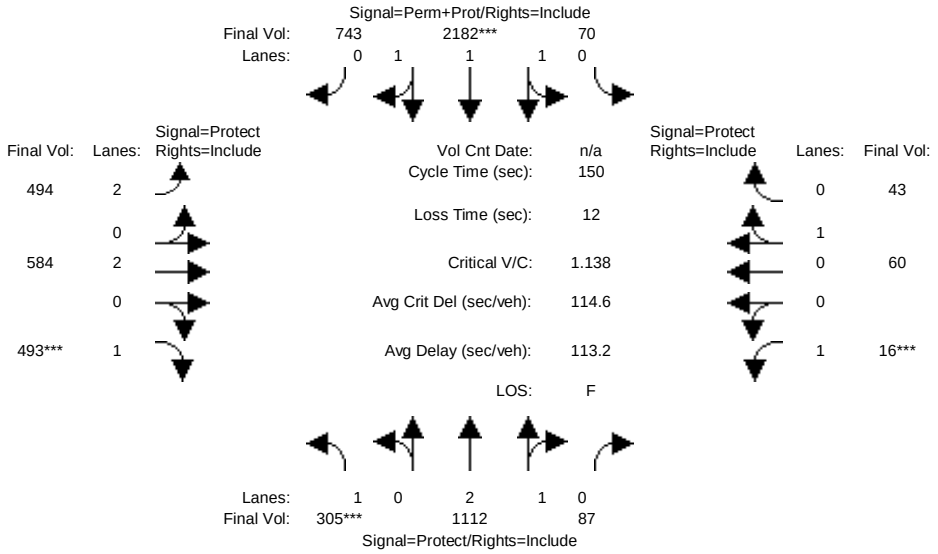
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #25: Wolfe Road/Fremont Avenue



Street Name:	Wolfe Road						Fremont Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	305	967	87	70	2048	743	494	584	493	16	60	43
Growth Adj:	1.00	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	967	87	70	2048	743	494	584	493	16	60	43
Added Vol:	0	145	0	0	134	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	305	1112	87	70	2182	743	494	584	493	16	60	43
User Adj:	1.00	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	1112	87	70	2182	743	494	584	493	16	60	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	305	1112	87	70	2182	743	494	584	493	16	60	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1112	87	70	2182	743	494	584	493	16	60	43
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.95	0.97	0.95	0.83	1.00	0.92	0.92	0.95	0.95
Lanes:	1.00	2.77	0.23	0.07	2.17	0.76	2.00	2.00	1.00	1.00	0.58	0.42
Final Sat.:	1750	5193	406	129	4007	1364	3150	3800	1750	1750	1049	751
Capacity Analysis Module:												
Vol/Sat:	0.17	0.21	0.21	0.00	0.54	0.54	0.16	0.15	0.28	0.01	0.06	0.06
Crit Moves:	****				****				****	****		
Green Time:	23.2	27.0	27.0	71.6	72.4	72.4	29.8	35.5	35.5	7.0	12.7	12.7
Volume/Cap:	1.13	1.19	1.19	1.14	1.13	1.13	0.79	0.65	1.19	0.20	0.68	0.68
Uniform Del:	63.4	61.5	61.5	39.2	38.8	38.8	57.1	51.7	57.3	68.8	66.7	66.7
IncremntDel:	94.0	96.1	96.1	68.8	63.4	63.4	9.8	3.6	107.8	5.3	21.6	21.6
InitQueuDel:	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:	157.4	158	157.6	108.0	102	102.2	66.9	55.3	165.0	74.1	88.3	88.3
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:	157.4	158	157.6	108.0	102	102.2	66.9	55.3	165.0	74.1	88.3	88.3
LOS by Move:	F	F	F	F	F	F	E	E+	F	E	F	F
HCM2kAvgQ:	575	731	731	1626	1601	1601	367	317	937	23	152	152

Note: Queue reported is the distance per lane in feet.

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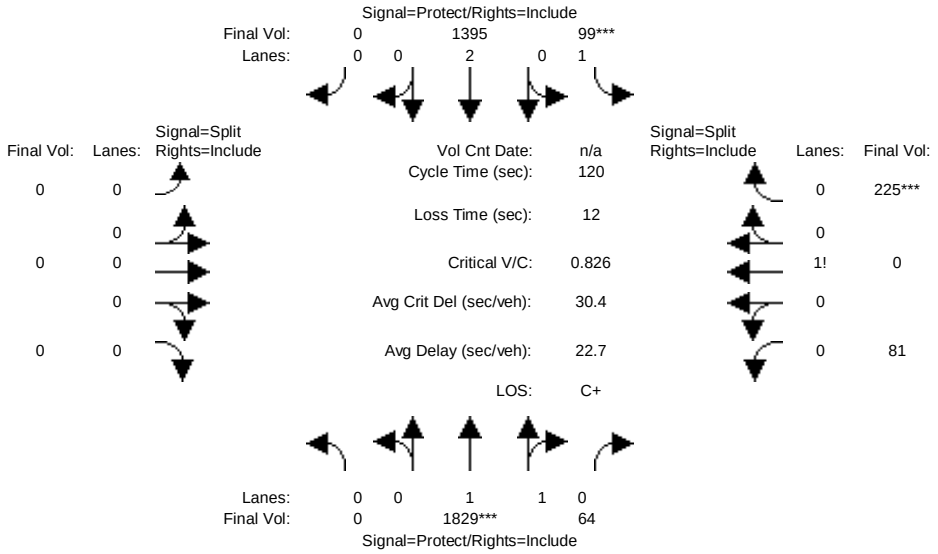
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #26: Wolfe Road/Marion Way



Street Name:	Wolfe Road						Marion Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1805	59	99	1356	0	0	0	0	73	0	225
Growth Adj:	1.00	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	1805	59	99	1356	0	0	0	0	73	0	225
Added Vol:	0	24	5	0	39	0	0	0	0	8	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1829	64	99	1395	0	0	0	0	81	0	225
User Adj:	1.00	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	1829	64	99	1395	0	0	0	0	81	0	225
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1829	64	99	1395	0	0	0	0	81	0	225
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1829	64	99	1395	0	0	0	0	81	0	225
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	0.00	1.93	0.07	1.00	2.00	0.00	0.00	0.00	0.00	0.26	0.00	0.74
Final Sat.:	0	3575	125	1750	3800	0	0	0	0	463	0	1287
Capacity Analysis Module:												
Vol/Sat:	0.00	0.51	0.51	0.06	0.37	0.00	0.00	0.00	0.00	0.17	0.00	0.17
Crit Moves:		****		****								****
Green Time:	0.0	74.4	74.4	8.2	82.6	0.0	0.0	0.0	0.0	25.4	0.0	25.4
Volume/Cap:	0.00	0.83	0.83	0.83	0.53	0.00	0.00	0.00	0.00	0.83	0.00	0.83
Uniform Del:	0.0	17.8	17.8	55.2	9.2	0.0	0.0	0.0	0.0	45.2	0.0	45.2
IncremntDel:	0.0	3.6	3.6	45.1	0.8	0.0	0.0	0.0	0.0	18.6	0.0	18.6
InitQueuDel:	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	21.3	21.3	100.3	10.0	0.0	0.0	0.0	0.0	63.8	0.0	63.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	21.3	21.3	100.3	10.0	0.0	0.0	0.0	0.0	63.8	0.0	63.8
LOS by Move:	A	C+	C+	F	A	A	A	A	A	E	A	E
HCM2kAvgQ:	0	733	733	151	315	0	0	0	0	350	0	350

Note: Queue reported is the distance per lane in feet.

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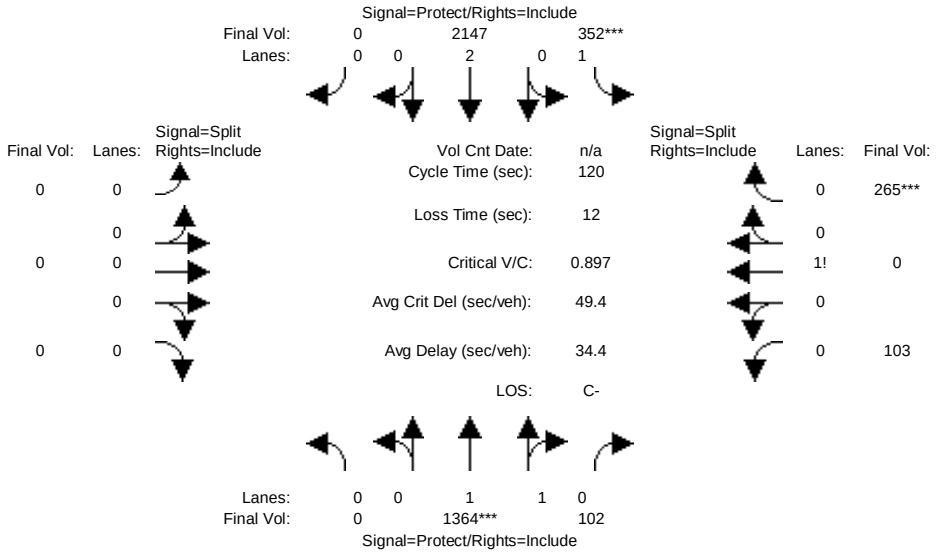
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #26: Wolfe Road/Marion Way



Street Name:	Wolfe Road						Marion Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1219	73	352	2013	0	0	0	0	76	0	265
Growth Adj:	1.00	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	1219	73	352	2013	0	0	0	0	76	0	265
Added Vol:	0	145	29	0	134	0	0	0	0	27	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1364	102	352	2147	0	0	0	0	103	0	265
User Adj:	1.00	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	1364	102	352	2147	0	0	0	0	103	0	265
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1364	102	352	2147	0	0	0	0	103	0	265
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1364	102	352	2147	0	0	0	0	103	0	265
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	0.00	1.86	0.14	1.00	2.00	0.00	0.00	0.00	0.00	0.28	0.00	0.72
Final Sat.:	0	3442	257	1750	3800	0	0	0	0	490	0	1260
Capacity Analysis Module:												
Vol/Sat:	0.00	0.40	0.40	0.20	0.56	0.00	0.00	0.00	0.00	0.21	0.00	0.21
Crit Moves:		****		****								****
Green Time:	0.0	53.0	53.0	26.9	79.9	0.0	0.0	0.0	0.0	28.1	0.0	28.1
Volume/Cap:	0.00	0.90	0.90	0.90	0.85	0.00	0.00	0.00	0.00	0.90	0.00	0.90
Uniform Del:	0.0	31.0	31.0	45.2	15.4	0.0	0.0	0.0	0.0	44.5	0.0	44.5
IncremntDel:	0.0	8.2	8.2	25.8	3.8	0.0	0.0	0.0	0.0	24.9	0.0	24.9
InitQueuDel:	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	39.2	39.2	71.0	19.2	0.0	0.0	0.0	0.0	69.5	0.0	69.5
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	39.2	39.2	71.0	19.2	0.0	0.0	0.0	0.0	69.5	0.0	69.5
LOS by Move:	A	D	D	E	B-	A	A	A	A	E	A	E
HCM2kAvgQ:	0	723	723	427	805	0	0	0	0	442	0	442

Note: Queue reported is the distance per lane in feet.

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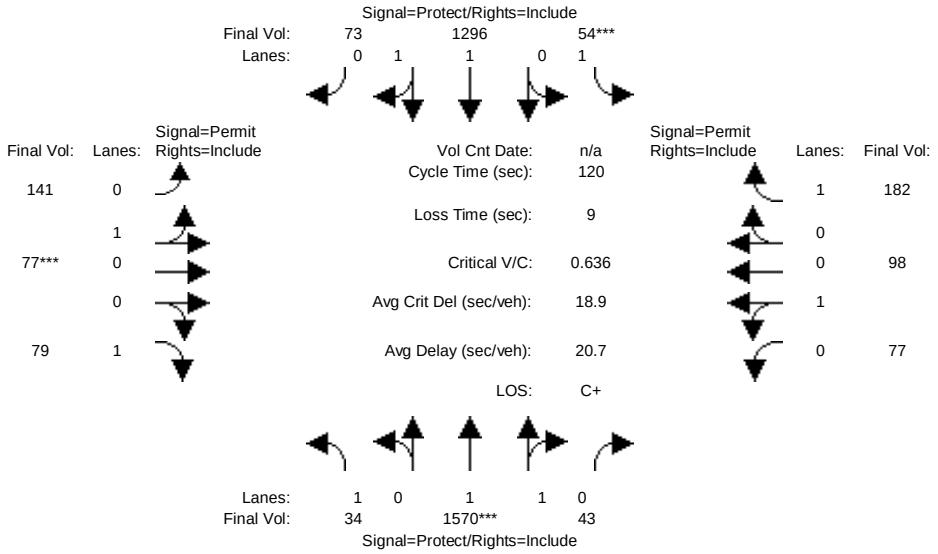
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #27: Wolfe Road/Iverness Avenue



Street Name:	Wolfe Road						Iverness Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	34	1541	43	54	1249	73	141	77	79	77	98	182
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	34	1541	43	54	1249	73	141	77	79	77	98	182
Added Vol:	0	29	0	0	47	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	1570	43	54	1296	73	141	77	79	77	98	182
User Adj:	1.00	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	1570	43	54	1296	73	141	77	79	77	98	182
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	1570	43	54	1296	73	141	77	79	77	98	182
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1570	43	54	1296	73	141	77	79	77	98	182
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.95	0.05	1.00	1.89	0.11	0.65	0.35	1.00	0.44	0.56	1.00
Final Sat.:	1750	3601	99	1750	3503	197	1164	636	1750	792	1008	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.44	0.44	0.03	0.37	0.37	0.12	0.12	0.05	0.10	0.10	0.10
Crit Moves:		****		****				****				
Green Time:	12.0	81.4	81.4	7.0	76.4	76.4	22.6	22.6	22.6	22.6	22.6	22.6
Volume/Cap:	0.19	0.64	0.64	0.53	0.58	0.58	0.64	0.64	0.24	0.52	0.52	0.55
Uniform Del:	49.5	11.0	11.0	54.9	12.6	12.6	45.0	45.0	41.4	43.8	43.8	44.1
IncremntDel:	2.4	1.3	1.3	18.2	1.1	1.1	9.0	9.0	1.7	5.5	5.5	6.5
InitQueuDel:	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:	52.0	12.3	12.3	73.1	13.7	13.7	54.0	54.0	43.1	49.3	49.3	50.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.0	12.3	12.3	73.1	13.7	13.7	54.0	54.0	43.1	49.3	49.3	50.6
LOS by Move:	D-	B	B	E	B	B	D-	D-	D	D	D	D
HCM2kAvgQ:	34	437	437	72	372	372	218	218	69	164	164	178

Note: Queue reported is the distance per lane in feet.

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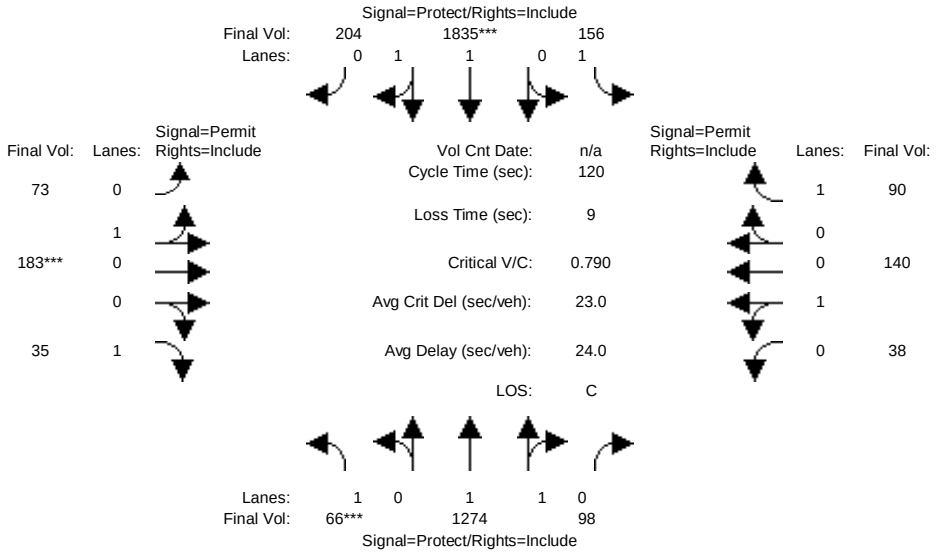
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #27: Wolfe Road/Iverness Avenue



Street Name:	Wolfe Road						Iverness Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	66	1100	98	156	1674	204	73	183	35	38	140	90
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	66	1100	98	156	1674	204	73	183	35	38	140	90
Added Vol:	0	174	0	0	161	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	66	1274	98	156	1835	204	73	183	35	38	140	90
User Adj:	1.00	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	1274	98	156	1835	204	73	183	35	38	140	90
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	1274	98	156	1835	204	73	183	35	38	140	90
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1274	98	156	1835	204	73	183	35	38	140	90
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.85	0.15	1.00	1.79	0.21	0.29	0.71	1.00	0.21	0.79	1.00
Final Sat.:	1750	3436	264	1750	3330	370	513	1287	1750	384	1416	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.37	0.37	0.09	0.55	0.55	0.14	0.14	0.02	0.10	0.10	0.05
Crit Moves:	****				****			****				
Green Time:	7.0	72.3	72.3	17.4	82.7	82.7	21.3	21.3	21.3	21.3	21.3	21.3
Volume/Cap:	0.65	0.62	0.62	0.62	0.80	0.80	0.80	0.80	0.11	0.56	0.56	0.29
Uniform Del:	55.3	15.1	15.1	48.2	12.9	12.9	47.3	47.3	41.4	45.0	45.0	42.8
IncremntDel:	27.5	1.3	1.3	10.7	2.7	2.7	18.6	18.6	0.7	6.8	6.8	2.3
InitQueuDel:	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:	82.8	16.4	16.4	58.9	15.7	15.7	65.9	65.9	42.1	51.8	51.8	45.1
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:	82.8	16.4	16.4	58.9	15.7	15.7	65.9	65.9	42.1	51.8	51.8	45.1
LOS by Move:	F	B	B	E+	B	B	E	E	D	D-	D-	D
HCM2kAvgQ:	94	410	410	169	695	695	290	290	30	172	172	81

Note: Queue reported is the distance per lane in feet.

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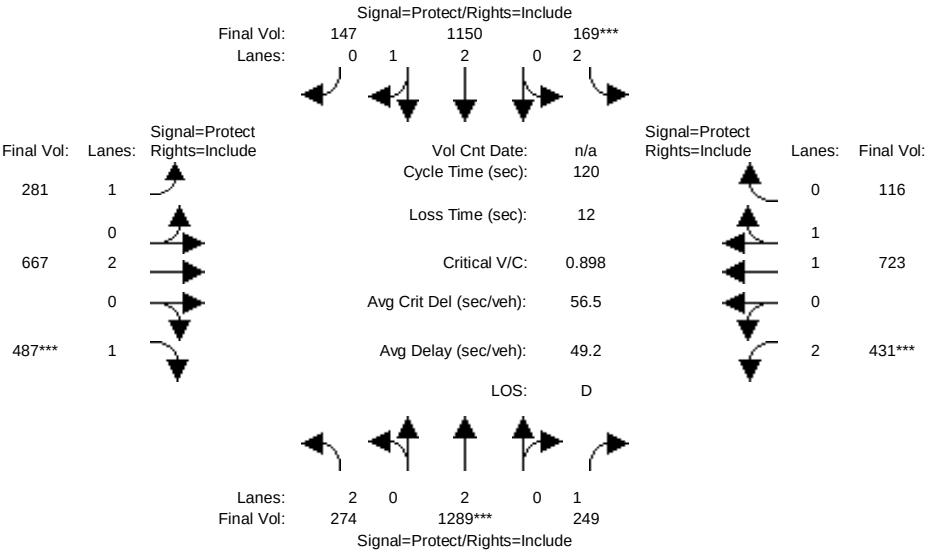
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #28: Wolfe Road/Homestead Road



Street Name:	Wolfe Road						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	274	1260	230	169	1103	147	281	667	487	376	723	116
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	274	1260	230	169	1103	147	281	667	487	376	723	116
Added Vol:	0	29	19	0	47	0	0	0	0	55	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	274	1289	249	169	1150	147	281	667	487	431	723	116
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	274	1289	249	169	1150	147	281	667	487	431	723	116
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	274	1289	249	169	1150	147	281	667	487	431	723	116
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	274	1289	249	169	1150	147	281	667	487	431	723	116
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92	0.83	0.98	0.95
Lanes:	2.00	2.00	1.00	2.00	2.65	0.35	1.00	2.00	1.00	2.00	1.72	0.28
Final Sat.:	3150	3800	1750	3150	4964	635	1750	3800	1750	3150	3188	511
Capacity Analysis Module:												
Vol/Sat:	0.09	0.34	0.14	0.05	0.23	0.23	0.16	0.18	0.28	0.14	0.23	0.23
Crit Moves:		****		****					****	****		
Green Time:	14.3	45.3	45.3	7.2	38.2	38.2	23.0	37.2	37.2	18.3	32.5	32.5
Volume/Cap:	0.73	0.90	0.38	0.90	0.73	0.73	0.84	0.57	0.90	0.90	0.84	0.84
Uniform Del:	51.0	35.1	27.1	56.1	36.3	36.3	46.7	34.6	39.6	49.9	41.3	41.3
IncremntDel:	11.7	9.2	1.6	43.3	2.6	2.6	21.4	2.0	20.2	22.2	8.3	8.3
InitQueuDel:	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:	62.6	44.3	28.7	99.3	39.0	39.0	68.1	36.6	59.8	72.1	49.6	49.6
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:	62.6	44.3	28.7	99.3	39.0	39.0	68.1	36.6	59.8	72.1	49.6	49.6
LOS by Move:	E	D	C	F	D+	D+	E	D+	E+	E	D	D
HCM2kAvgQ:	185	643	178	157	385	385	332	264	551	316	433	433

Note: Queue reported is the distance per lane in feet.

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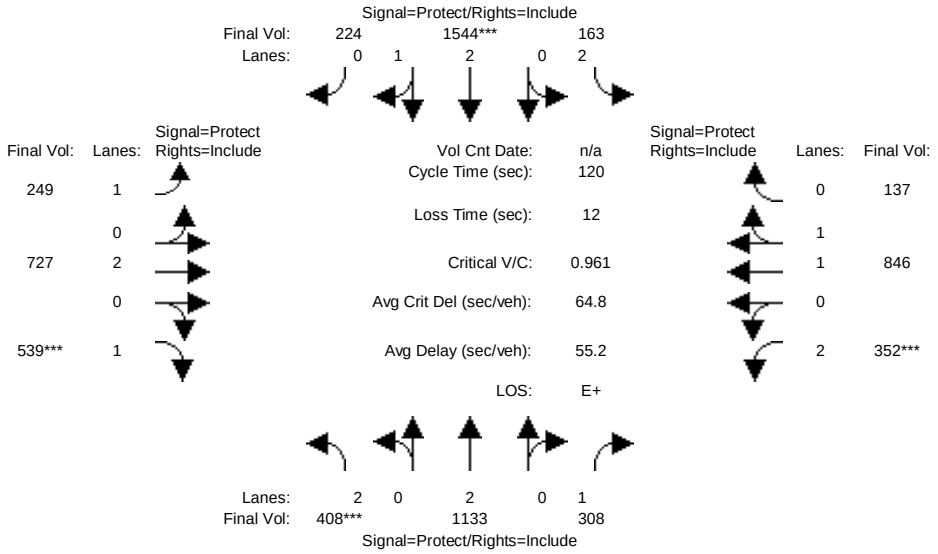
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #28: Wolfe Road/Homestead Road



Street Name:	Wolfe Road						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	408	959	192	163	1383	224	249	727	539	164	846	137
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	408	959	192	163	1383	224	249	727	539	164	846	137
Added Vol:	0	174	116	0	161	0	0	0	0	188	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	408	1133	308	163	1544	224	249	727	539	352	846	137
User Adj:	1.00	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:	408	1133	308	163	1544	224	249	727	539	352	846	137
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	408	1133	308	163	1544	224	249	727	539	352	846	137
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	408	1133	308	163	1544	224	249	727	539	352	846	137
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92	0.83	0.98	0.95
Lanes:	2.00	2.00	1.00	2.00	2.61	0.39	1.00	2.00	1.00	2.00	1.71	0.29
Final Sat.:	3150	3800	1750	3150	4890	709	1750	3800	1750	3150	3184	516
Capacity Analysis Module:												
Vol/Sat:	0.13	0.30	0.18	0.05	0.32	0.32	0.14	0.19	0.31	0.11	0.27	0.27
Crit Moves:	****				****				****	****		
Green Time:	16.2	46.5	46.5	9.1	39.4	39.4	18.3	38.5	38.5	14.0	34.1	34.1
Volume/Cap:	0.96	0.77	0.45	0.68	0.96	0.96	0.93	0.60	0.96	0.96	0.93	0.93
Uniform Del:	51.6	32.1	27.3	54.0	39.5	39.5	50.3	34.3	40.0	52.8	41.8	41.8
IncremntDel:	35.0	3.9	2.2	14.7	13.6	13.6	40.5	2.2	29.5	38.2	15.8	15.8
InitQueuDel:	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:	86.6	36.0	29.5	68.7	53.1	53.1	90.8	36.4	69.6	90.9	57.7	57.7
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:	86.6	36.0	29.5	68.7	53.1	53.1	90.8	36.4	69.6	90.9	57.7	57.7
LOS by Move:	F	D+	C	E	D-	D-	F	D+	E	F	E+	E+
HCM2kAvgQ:	328	485	228	121	673	673	341	290	659	292	561	561

Note: Queue reported is the distance per lane in feet.

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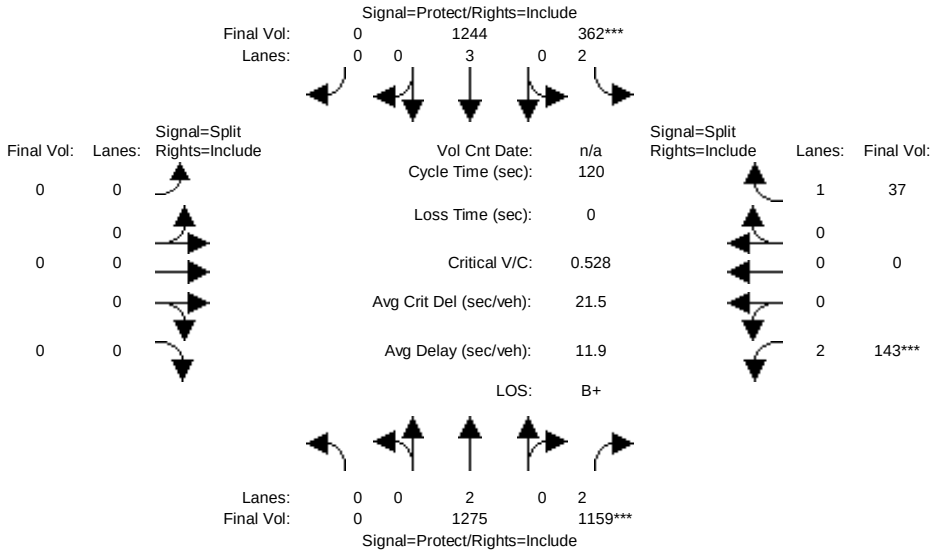
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #29: Wolfe Road/Apple Campus 2 Driveway



Street Name:	Wolfe Road						Apple Campus 2 Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	0	0	10	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1227	1159	362	1142	0	0	0	0	143	0	37
Growth Adj:	1.00	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	1227	1159	362	1142	0	0	0	0	143	0	37
Added Vol:	0	48	0	0	102	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1275	1159	362	1244	0	0	0	0	143	0	37
User Adj:	1.00	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	1275	1159	362	1244	0	0	0	0	143	0	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1275	1159	362	1244	0	0	0	0	143	0	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1275	1159	362	1244	0	0	0	0	143	0	37
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	2.00	2.00	2.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3800	3150	3150	5700	0	0	0	0	3150	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.34	0.37	0.11	0.22	0.00	0.00	0.00	0.00	0.05	0.00	0.02
Crit Moves:			****	****						****		
Green Time:	0.0	83.6	83.6	26.1	110	0.0	0.0	0.0	0.0	10.3	0.0	10.3
Volume/Cap:	0.00	0.48	0.53	0.53	0.24	0.00	0.00	0.00	0.00	0.53	0.00	0.25
Uniform Del:	0.0	8.3	8.7	41.5	0.6	0.0	0.0	0.0	0.0	52.5	0.0	51.2
IncremntDel:	0.0	0.6	0.9	2.9	0.1	0.0	0.0	0.0	0.0	7.2	0.0	3.9
InitQueuDel:	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	8.9	9.7	44.4	0.7	0.0	0.0	0.0	0.0	59.7	0.0	55.1
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	8.9	9.7	44.4	0.7	0.0	0.0	0.0	0.0	59.7	0.0	55.1
LOS by Move:	A	A	A	D	A	A	A	A	A	E+	A	E+
HCM2kAvgQ:	0	266	307	188	46	0	0	0	0	94	0	39

Note: Queue reported is the distance per lane in feet.

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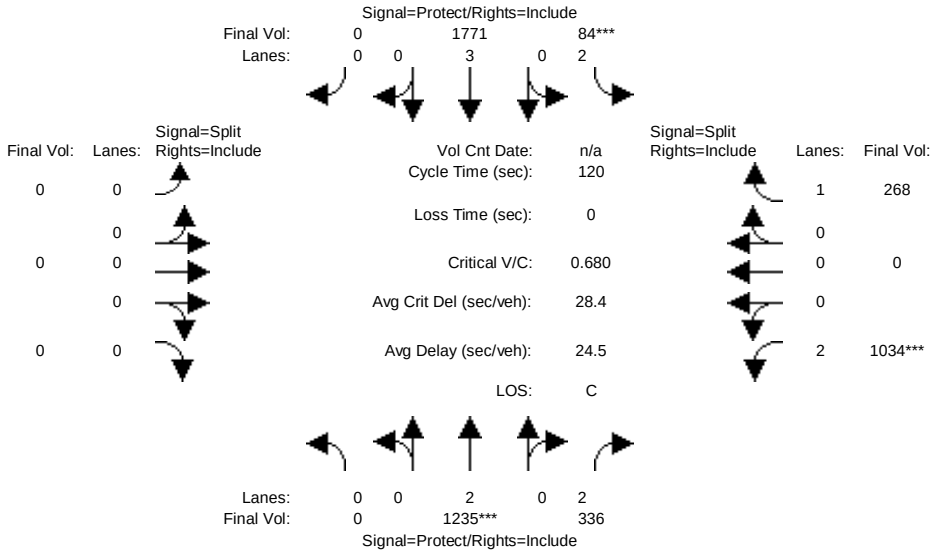
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #29: Wolfe Road/Apple Campus 2 Driveway



Street Name:	Wolfe Road						Apple Campus 2 Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	10	0	0	10	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	945	336	84	1423	0	0	0	0	1034	0	268
Growth Adj:	1.00	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	945	336	84	1423	0	0	0	0	1034	0	268
Added Vol:	0	290	0	0	348	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1235	336	84	1771	0	0	0	0	1034	0	268
User Adj:	1.00	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	1235	336	84	1771	0	0	0	0	1034	0	268
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1235	336	84	1771	0	0	0	0	1034	0	268
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1235	336	84	1771	0	0	0	0	1034	0	268
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	2.00	2.00	2.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3800	3150	3150	5700	0	0	0	0	3150	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.33	0.11	0.03	0.31	0.00	0.00	0.00	0.00	0.33	0.00	0.15
Crit Moves:		****		****						****		
Green Time:	0.0	57.4	57.4	4.7	62.1	0.0	0.0	0.0	0.0	57.9	0.0	57.9
Volume/Cap:	0.00	0.68	0.22	0.68	0.60	0.00	0.00	0.00	0.00	0.68	0.00	0.32
Uniform Del:	0.0	24.2	18.3	56.9	20.3	0.0	0.0	0.0	0.0	23.9	0.0	19.0
IncremntDel:	0.0	2.1	0.3	26.2	0.9	0.0	0.0	0.0	0.0	2.5	0.0	1.0
InitQueuDel:	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	26.3	18.6	83.1	21.2	0.0	0.0	0.0	0.0	26.4	0.0	19.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	26.3	18.6	83.1	21.2	0.0	0.0	0.0	0.0	26.4	0.0	19.9
LOS by Move:	A	C	B-	F	C+	A	A	A	A	C	A	B-
HCM2kAvgQ:	0	448	106	78	381	0	0	0	0	451	0	160

Note: Queue reported is the distance per lane in feet.

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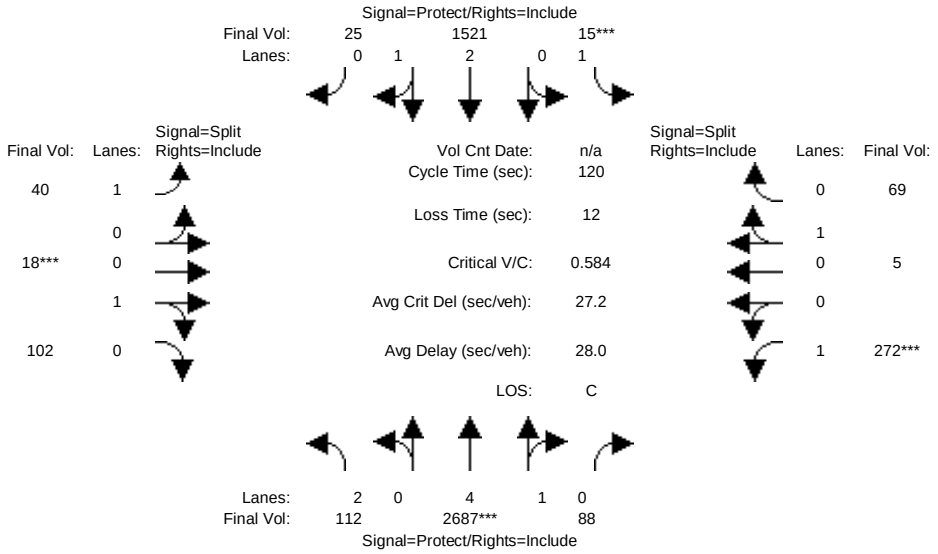
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #30: Wolfe Road/Pruneridge Avenue



Street Name:	Wolfe Road						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	112	2639	88	15	1419	25	40	18	102	272	5	69
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	112	2639	88	15	1419	25	40	18	102	272	5	69
Added Vol:	0	48	0	0	102	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	112	2687	88	15	1521	25	40	18	102	272	5	69
User Adj:	1.00	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:	112	2687	88	15	1521	25	40	18	102	272	5	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	112	2687	88	15	1521	25	40	18	102	272	5	69
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	112	2687	88	15	1521	25	40	18	102	272	5	69
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	2.00	4.83	0.17	1.00	2.95	0.05	1.00	0.15	0.85	1.00	0.07	0.93
Final Sat.:	3150	9101	298	1750	5509	91	1750	270	1530	1750	122	1678
Capacity Analysis Module:												
Vol/Sat:	0.04	0.30	0.30	0.01	0.28	0.28	0.02	0.07	0.07	0.16	0.04	0.04
Crit Moves:		****		****				****		****		
Green Time:	11.3	57.6	57.6	7.0	53.4	53.4	13.0	13.0	13.0	30.3	30.3	30.3
Volume/Cap:	0.38	0.61	0.61	0.15	0.62	0.62	0.21	0.61	0.61	0.61	0.16	0.16
Uniform Del:	51.1	23.0	23.0	53.7	25.6	25.6	48.8	51.1	51.1	39.7	34.9	34.9
IncremntDel:	3.7	0.6	0.6	3.0	1.2	1.2	2.5	13.6	13.6	6.3	0.8	0.8
InitQueuDel:	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:	54.7	23.6	23.6	56.7	26.7	26.7	51.3	64.7	64.7	45.9	35.7	35.7
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:	54.7	23.6	23.6	56.7	26.7	26.7	51.3	64.7	64.7	45.9	35.7	35.7
LOS by Move:	D-	C	C	E+	C	C	D-	E	E	D	D+	D+
HCM2kAvgQ:	67	383	383	17	375	375	40	136	136	255	56	56

Note: Queue reported is the distance per lane in feet.

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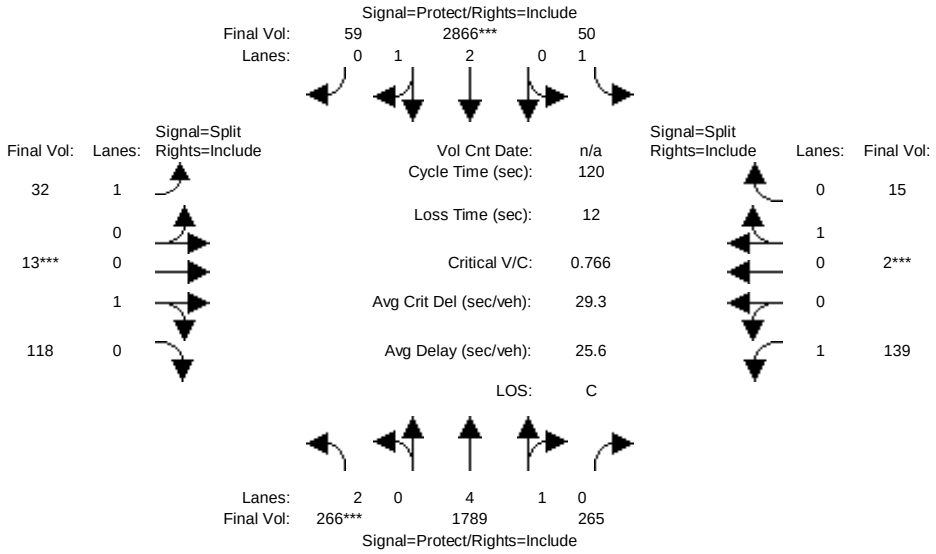
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #30: Wolfe Road/Pruneridge Avenue



Street Name:	Wolfe Road						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	266	1499	265	50	2518	59	32	13	118	139	2	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	266	1499	265	50	2518	59	32	13	118	139	2	15
Added Vol:	0	290	0	0	348	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	266	1789	265	50	2866	59	32	13	118	139	2	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:	266	1789	265	50	2866	59	32	13	118	139	2	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	266	1789	265	50	2866	59	32	13	118	139	2	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:	266	1789	265	50	2866	59	32	13	118	139	2	15
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	2.00	4.33	0.67	1.00	2.94	0.06	1.00	0.10	0.90	1.00	0.12	0.88
Final Sat.:	3150	8185	1212	1750	5487	113	1750	179	1621	1750	212	1588
Capacity Analysis Module:												
Vol/Sat:	0.08	0.22	0.22	0.03	0.52	0.52	0.02	0.07	0.07	0.08	0.01	0.01
Crit Moves:	****				****			****			****	
Green Time:	11.9	67.3	67.3	18.0	73.4	73.4	10.2	10.2	10.2	12.5	12.5	12.5
Volume/Cap:	0.85	0.39	0.39	0.19	0.85	0.85	0.21	0.85	0.85	0.77	0.09	0.09
Uniform Del:	53.2	14.8	14.8	44.6	18.9	18.9	51.1	54.1	54.1	52.4	48.7	48.7
IncremntDel:	24.5	0.2	0.2	1.6	2.9	2.9	3.3	41.8	41.8	26.0	1.0	1.0
InitQueuDel:	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:	77.7	15.0	15.0	46.3	21.8	21.8	54.4	95.9	95.9	78.3	49.6	49.6
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:	77.7	15.0	15.0	46.3	21.8	21.8	54.4	95.9	95.9	78.3	49.6	49.6
LOS by Move:	E-	B	B	D	C+	C+	D-	F	F	E-	D	D
HCM2kAvgQ:	208	210	210	45	791	791	34	187	187	181	16	16

Note: Queue reported is the distance per lane in feet.

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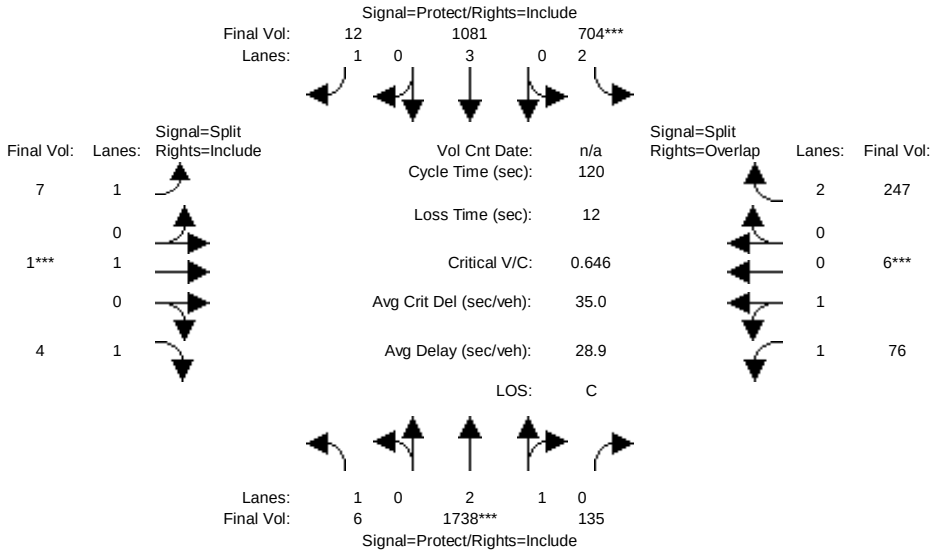
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #33: Wolfe Road/Vallco Parkway



Street Name:	Wolfe Road						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	6	1738	135	704	1081	12	7	1	4	76	6	247
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	1738	135	704	1081	12	7	1	4	76	6	247
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:	6	1738	135	704	1081	12	7	1	4	76	6	247
User Adj:	1.00	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:	6	1738	135	704	1081	12	7	1	4	76	6	247
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	1738	135	704	1081	12	7	1	4	76	6	247
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	6	1738	135	704	1081	12	7	1	4	76	6	247
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.83
Lanes:	1.00	2.78	0.22	2.00	3.00	1.00	1.00	1.00	1.00	1.86	0.14	2.00
Final Sat.:	1750	5196	404	3150	5700	1750	1750	1900	1750	3290	260	3150
Capacity Analysis Module:												
Vol/Sat:	0.00	0.33	0.33	0.22	0.19	0.01	0.00	0.00	0.00	0.02	0.02	0.08
Crit Moves:		****		****				****			****	
Green Time:	20.7	52.8	52.8	35.2	67.3	67.3	10.0	10.0	10.0	10.0	10.0	45.2
Volume/Cap:	0.02	0.76	0.76	0.76	0.34	0.01	0.05	0.01	0.03	0.28	0.28	0.21
Uniform Del:	41.2	28.3	28.3	38.5	14.3	11.7	50.6	50.4	50.5	51.6	51.6	25.3
IncremntDel:	0.1	2.3	2.3	5.9	0.3	0.0	0.6	0.1	0.3	2.3	2.3	0.4
InitQueuDel:	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	30.6	30.6	44.4	14.6	11.7	51.2	50.5	50.9	53.9	53.9	25.7
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:	41.3	30.6	30.6	44.4	14.6	11.7	51.2	50.5	50.9	53.9	53.9	25.7
LOS by Move:	D	C	C	D	B	B+	D-	D	D	D-	D-	C
HCM2kAvgQ:	5	478	478	385	181	5	7	1	4	38	38	91

Note: Queue reported is the distance per lane in feet.

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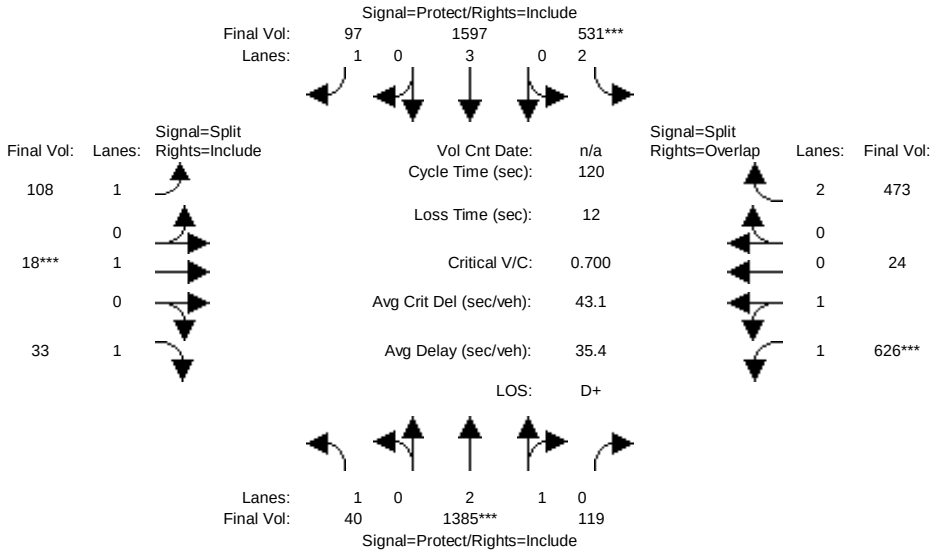
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #33: Wolfe Road/Vallco Parkway



Street Name:	Wolfe Road						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	40	1385	119	531	1597	97	108	18	33	626	24	473
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	40	1385	119	531	1597	97	108	18	33	626	24	473
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:	40	1385	119	531	1597	97	108	18	33	626	24	473
User Adj:	1.00	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	1385	119	531	1597	97	108	18	33	626	24	473
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	1385	119	531	1597	97	108	18	33	626	24	473
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1385	119	531	1597	97	108	18	33	626	24	473
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.83
Lanes:	1.00	2.75	0.25	2.00	3.00	1.00	1.00	1.00	1.00	1.93	0.07	2.00
Final Sat.:	1750	5156	443	3150	5700	1750	1750	1900	1750	3419	131	3150
Capacity Analysis Module:												
Vol/Sat:	0.02	0.27	0.27	0.17	0.28	0.06	0.06	0.01	0.02	0.18	0.18	0.15
Crit Moves:		****		****				****		****		
Green Time:	11.8	42.2	42.2	26.5	56.8	56.8	10.6	10.6	10.6	28.8	28.8	55.2
Volume/Cap:	0.23	0.76	0.76	0.76	0.59	0.12	0.70	0.11	0.21	0.76	0.76	0.33
Uniform Del:	49.9	34.5	34.5	43.8	23.1	17.6	53.2	50.4	50.8	42.5	42.5	20.6
IncremntDel:	3.1	2.9	2.9	7.8	1.0	0.3	23.2	1.3	3.1	6.5	6.5	0.6
InitQueuDel:	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:	53.0	37.4	37.4	51.6	24.1	17.9	76.4	51.6	54.0	48.9	48.9	21.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.0	37.4	37.4	51.6	24.1	17.9	76.4	51.6	54.0	48.9	48.9	21.2
LOS by Move:	D-	D+	D+	D-	C	B	E-	D-	D-	D	D	C+
HCM2kAvgQ:	34	399	399	299	366	53	140	17	34	319	319	164

Note: Queue reported is the distance per lane in feet.

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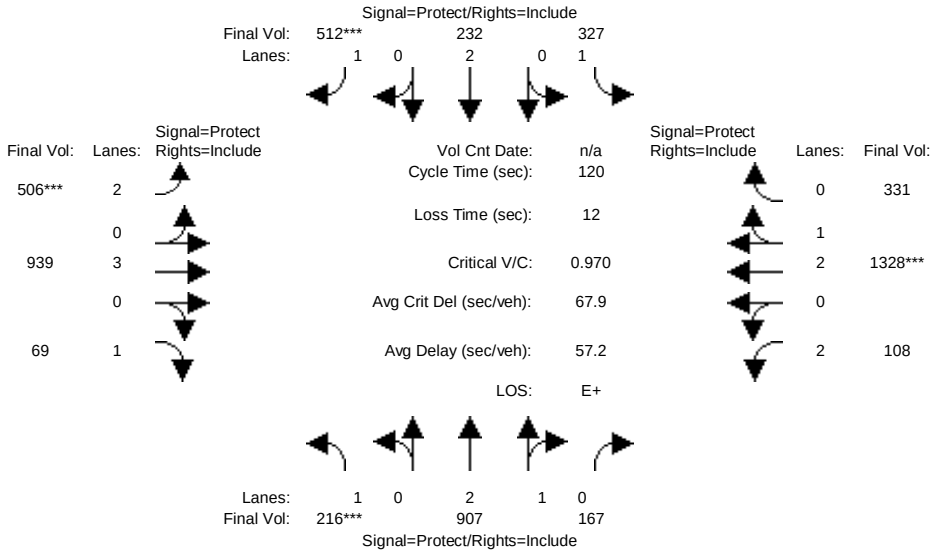
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #34: Wolfe Road/Stevens Creek Boulevard



Street Name:	Wolfe Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	216	907	167	327	232	512	506	939	69	108	1328	331
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	216	907	167	327	232	512	506	939	69	108	1328	331
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:	216	907	167	327	232	512	506	939	69	108	1328	331
User Adj:	1.00	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:	216	907	167	327	232	512	506	939	69	108	1328	331
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	216	907	167	327	232	512	506	939	69	108	1328	331
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	216	907	167	327	232	512	506	939	69	108	1328	331
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	1.00	0.92	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	1.00	2.52	0.48	1.00	2.00	1.00	2.00	3.00	1.00	2.00	2.38	0.62
Final Sat.:	1750	4728	871	1750	3800	1750	3150	5700	1750	3150	4481	1117
Capacity Analysis Module:												
Vol/Sat:	0.12	0.19	0.19	0.19	0.06	0.29	0.16	0.16	0.04	0.03	0.30	0.30
Crit Moves:	****					****	****				****	
Green Time:	15.3	26.1	26.1	25.4	36.2	36.2	19.9	41.8	41.8	14.8	36.7	36.7
Volume/Cap:	0.97	0.88	0.88	0.88	0.20	0.97	0.97	0.47	0.11	0.28	0.97	0.97
Uniform Del:	52.1	45.5	45.5	45.9	31.2	41.4	49.8	30.5	26.6	47.8	41.1	41.1
IncremntDel:	53.0	9.5	9.5	24.9	0.4	32.4	32.6	0.8	0.4	1.8	15.7	15.7
InitQueuDel:	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:	105.2	55.0	55.0	70.8	31.6	73.8	82.4	31.4	26.9	49.5	56.8	56.8
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:	105.2	55.0	55.0	70.8	31.6	73.8	82.4	31.4	26.9	49.5	56.8	56.8
LOS by Move:	F	D-	D-	E	C	E	F	C	C	D	E+	E+
HCM2kAvgQ:	319	404	404	371	78	630	357	225	45	59	647	647

Note: Queue reported is the distance per lane in feet.

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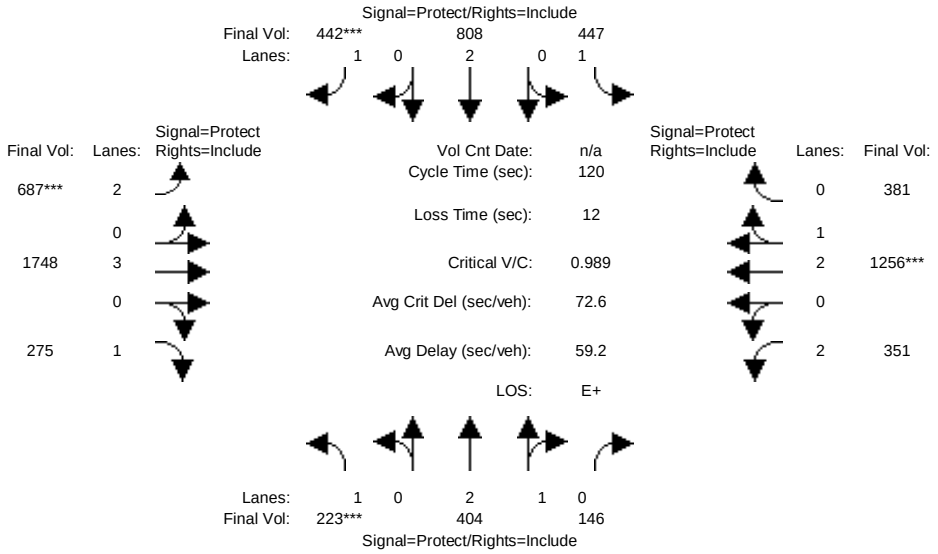
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #34: Wolfe Road/Stevens Creek Boulevard



Street Name:	Wolfe Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	223	404	146	447	808	442	687	1748	275	351	1256	381
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	223	404	146	447	808	442	687	1748	275	351	1256	381
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:	223	404	146	447	808	442	687	1748	275	351	1256	381
User Adj:	1.00	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:	223	404	146	447	808	442	687	1748	275	351	1256	381
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	223	404	146	447	808	442	687	1748	275	351	1256	381
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	223	404	146	447	808	442	687	1748	275	351	1256	381
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.95	0.92	1.00	0.92	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	1.00	2.17	0.83	1.00	2.00	1.00	2.00	3.00	1.00	2.00	2.28	0.72
Final Sat.:	1750	4112	1486	1750	3800	1750	3150	5700	1750	3150	4295	1303
Capacity Analysis Module:												
Vol/Sat:	0.13	0.10	0.10	0.26	0.21	0.25	0.22	0.31	0.16	0.11	0.29	0.29
Crit Moves:	****					****	****				****	
Green Time:	15.5	12.8	12.8	33.3	30.6	30.6	26.4	45.4	45.4	16.5	35.5	35.5
Volume/Cap:	0.99	0.92	0.92	0.92	0.83	0.99	0.99	0.81	0.42	0.81	0.99	0.99
Uniform Del:	52.2	53.1	53.1	42.1	42.3	44.5	46.6	33.4	27.5	50.2	42.1	42.1
IncremntDel:	57.3	21.8	21.8	25.3	8.3	40.1	31.7	3.4	1.9	15.1	19.8	19.8
InitQueuDel:	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:	109.5	74.9	74.9	67.3	50.6	84.6	78.3	36.9	29.4	65.3	61.9	61.9
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:	109.5	74.9	74.9	67.3	50.6	84.6	78.3	36.9	29.4	65.3	61.9	61.9
LOS by Move:	F	E	E	E	D	F	E-	D+	C	E	E	E
HCM2kAvgQ:	335	252	252	502	383	547	469	507	197	244	660	660

Note: Queue reported is the distance per lane in feet.

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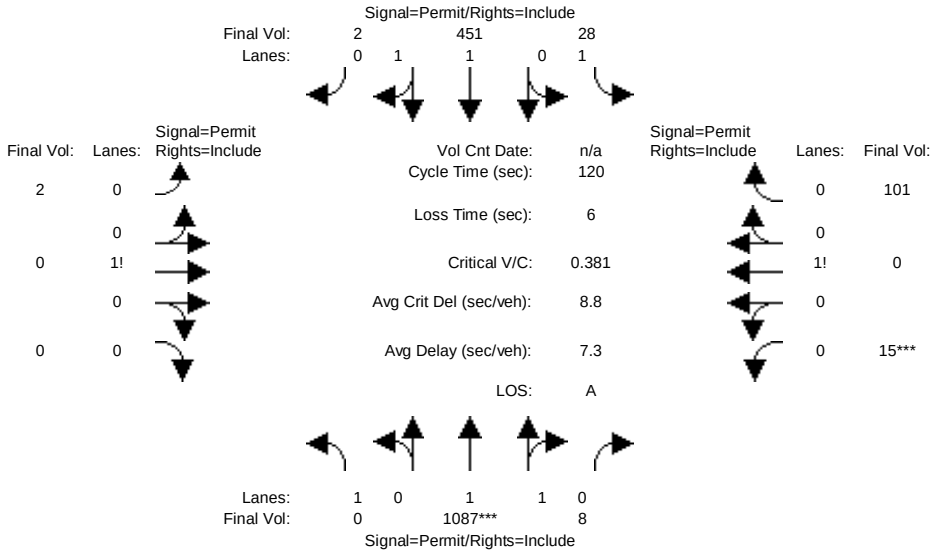
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #35: Miller Avenue/Calle De Barcelona



Street Name:	Miller Avenue						Calle De Barcelona					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1052	8	28	429	2	2	0	0	15	0	101
Growth Adj:	1.00	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	1052	8	28	429	2	2	0	0	15	0	101
Added Vol:	0	35	0	0	22	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1087	8	28	451	2	2	0	0	15	0	101
User Adj:	1.00	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	1087	8	28	451	2	2	0	0	15	0	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1087	8	28	451	2	2	0	0	15	0	101
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1087	8	28	451	2	2	0	0	15	0	101
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	1.98	0.02	1.00	1.99	0.01	1.00	0.00	0.00	0.13	0.00	0.87
Final Sat.:	1750	3673	27	1750	3684	16	1750	0	0	226	0	1524
Capacity Analysis Module:												
Vol/Sat:	0.00	0.30	0.30	0.02	0.12	0.12	0.00	0.00	0.00	0.07	0.00	0.07
Crit Moves:		****								****		
Green Time:	0.0	93.1	93.1	93.1	93.1	93.1	20.9	0.0	0.0	20.9	0.0	20.9
Volume/Cap:	0.00	0.38	0.38	0.02	0.16	0.16	0.01	0.00	0.00	0.38	0.00	0.38
Uniform Del:	0.0	4.3	4.3	3.1	3.4	3.4	41.0	0.0	0.0	43.9	0.0	43.9
IncremntDel:	0.0	0.4	0.4	0.0	0.1	0.1	0.0	0.0	0.0	3.6	0.0	3.6
InitQueuDel:	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	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	4.7	4.7	3.1	3.5	3.5	41.0	0.0	0.0	47.5	0.0	47.5
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	4.7	4.7	3.1	3.5	3.5	41.0	0.0	0.0	47.5	0.0	47.5
LOS by Move:	A	A	A	A	A	A	D	A	A	D	A	D
HCM2kAvgQ:	0	164	164	6	54	54	2	0	0	108	0	108

Note: Queue reported is the distance per lane in feet.

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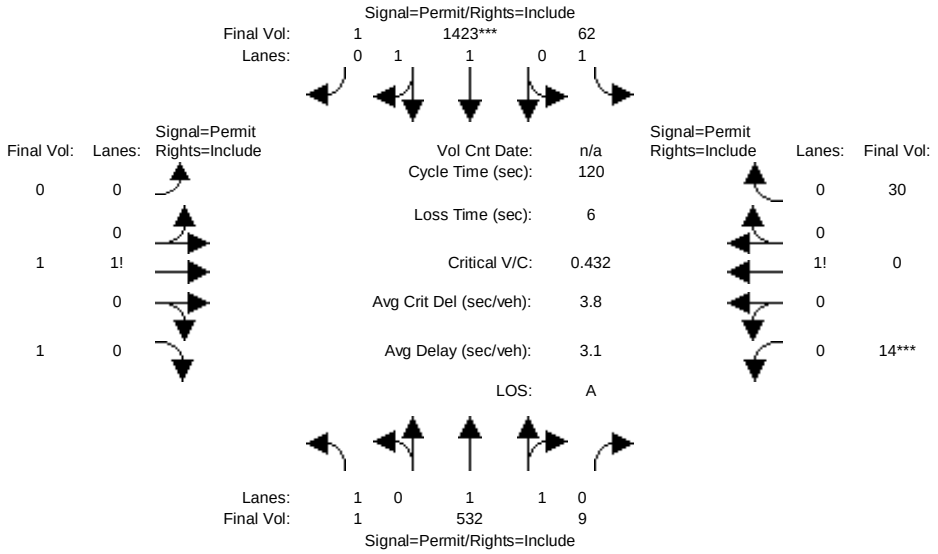
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #35: Miller Avenue/Calle De Barcelona



Street Name:	Miller Avenue						Calle De Barcelona					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	1	411	9	62	1292	1	0	1	1	14	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	411	9	62	1292	1	0	1	1	14	0	30
Added Vol:	0	121	0	0	131	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	532	9	62	1423	1	0	1	1	14	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	532	9	62	1423	1	0	1	1	14	0	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	532	9	62	1423	1	0	1	1	14	0	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:	1	532	9	62	1423	1	0	1	1	14	0	30
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	1.00	1.97	0.03	1.00	1.99	0.01	0.00	0.50	0.50	0.32	0.00	0.68
Final Sat.:	1750	3638	62	1750	3697	3	0	900	900	557	0	1193
Capacity Analysis Module:												
Vol/Sat:	0.00	0.15	0.15	0.04	0.38	0.38	0.00	0.00	0.00	0.03	0.00	0.03
Crit Moves:					****					****		
Green Time:	104.0	104	104.0	104.0	104	104.0	0.0	10.0	10.0	10.0	0.0	10.0
Volume/Cap:	0.00	0.17	0.17	0.04	0.44	0.44	0.00	0.01	0.01	0.30	0.00	0.30
Uniform Del:	1.1	1.2	1.2	1.1	1.7	1.7	0.0	50.5	50.5	51.7	0.0	51.7
IncremntDel:	0.0	0.1	0.1	0.1	0.4	0.4	0.0	0.2	0.2	5.2	0.0	5.2
InitQueuDel:	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	0.00	1.00	1.00	1.00	0.00	1.00
Delay/Veh:	1.1	1.4	1.4	1.2	2.2	2.2	0.0	50.6	50.6	57.0	0.0	57.0
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:	1.1	1.4	1.4	1.2	2.2	2.2	0.0	50.6	50.6	57.0	0.0	57.0
LOS by Move:	A	A	A	A	A	A	A	D	D	E+	A	E+
HCM2kAvgQ:	0	41	41	9	152	152	0	2	2	48	0	48

Note: Queue reported is the distance per lane in feet.

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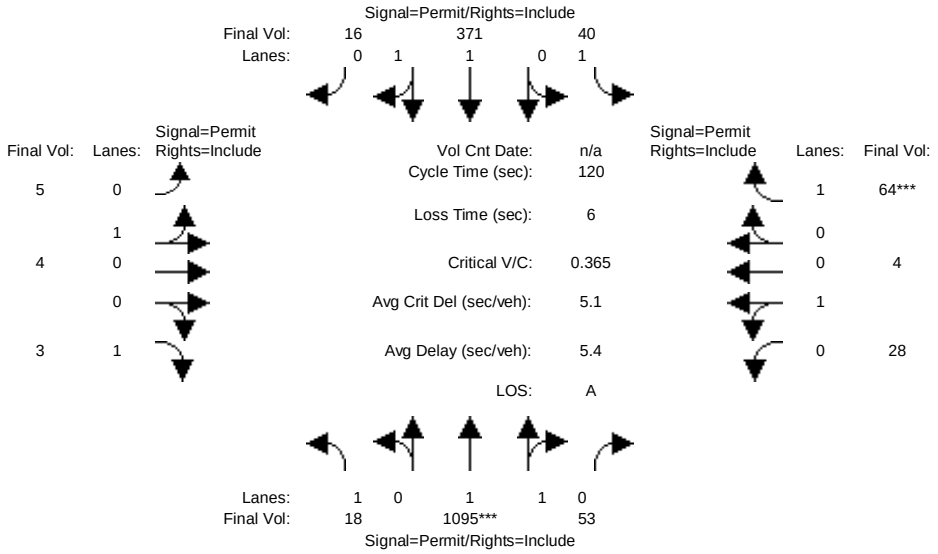
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #36: Miller Avenue/Phil Lane



Street Name:	Miller Avenue						Phil Lane					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	18	1060	53	40	349	16	5	4	3	28	4	64
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	1060	53	40	349	16	5	4	3	28	4	64
Added Vol:	0	35	0	0	22	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	1095	53	40	371	16	5	4	3	28	4	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:	18	1095	53	40	371	16	5	4	3	28	4	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	1095	53	40	371	16	5	4	3	28	4	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:	18	1095	53	40	371	16	5	4	3	28	4	64
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.91	0.09	1.00	1.92	0.08	0.56	0.44	1.00	0.87	0.13	1.00
Final Sat.:	1750	3529	171	1750	3547	153	1000	800	1750	1575	225	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.31	0.31	0.02	0.10	0.10	0.01	0.01	0.00	0.02	0.02	0.04
Crit Moves:		****										****
Green Time:	102.0	102	102.0	102.0	102	102.0	12.0	12.0	12.0	12.0	12.0	12.0
Volume/Cap:	0.01	0.37	0.37	0.03	0.12	0.12	0.05	0.05	0.02	0.18	0.18	0.37
Uniform Del:	1.4	2.0	2.0	1.4	1.5	1.5	48.8	48.8	48.7	49.5	49.5	50.4
IncremntDel:	0.0	0.3	0.3	0.0	0.1	0.1	0.5	0.5	0.2	2.1	2.1	5.8
InitQueuDel:	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:	1.4	2.3	2.3	1.4	1.6	1.6	49.4	49.4	48.8	51.6	51.6	56.2
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:	1.4	2.3	2.3	1.4	1.6	1.6	49.4	49.4	48.8	51.6	51.6	56.2
LOS by Move:	A	A	A	A	A	A	D	D	D	D-	D-	E+
HCM2kAvgQ:	3	121	121	6	31	31	8	8	3	31	31	68

Note: Queue reported is the distance per lane in feet.

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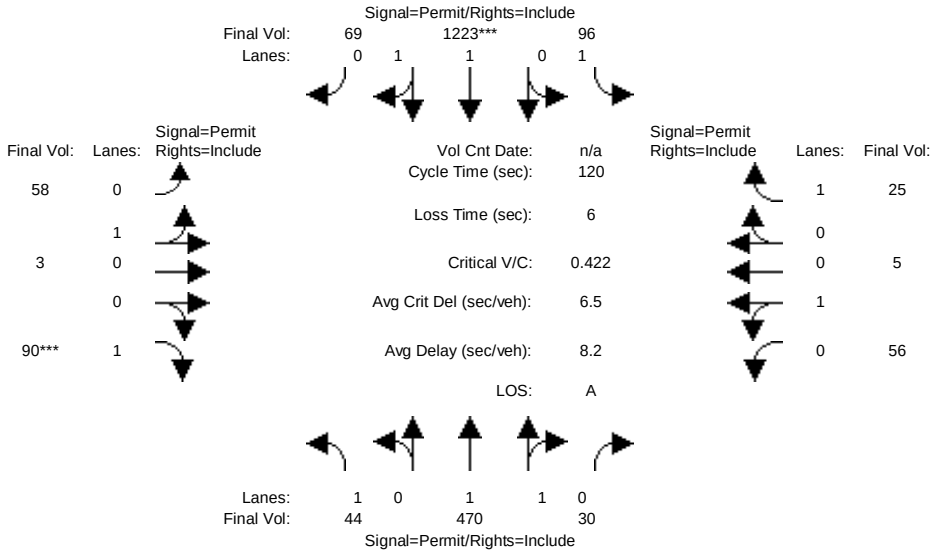
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #36: Miller Avenue/Phil Lane



Street Name:	Miller Avenue						Phil Lane					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	44	349	30	96	1092	69	58	3	90	56	5	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	44	349	30	96	1092	69	58	3	90	56	5	25
Added Vol:	0	121	0	0	131	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	470	30	96	1223	69	58	3	90	56	5	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:	44	470	30	96	1223	69	58	3	90	56	5	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	470	30	96	1223	69	58	3	90	56	5	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:	44	470	30	96	1223	69	58	3	90	56	5	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.88	0.12	1.00	1.89	0.11	0.95	0.05	1.00	0.92	0.08	1.00
Final Sat.:	1750	3478	222	1750	3502	198	1711	89	1750	1652	148	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.14	0.14	0.05	0.35	0.35	0.03	0.03	0.05	0.03	0.03	0.01
Crit Moves:					****				****			
Green Time:	99.4	99.4	99.4	99.4	99.4	99.4	14.6	14.6	14.6	14.6	14.6	14.6
Volume/Cap:	0.03	0.16	0.16	0.07	0.42	0.42	0.28	0.28	0.42	0.28	0.28	0.12
Uniform Del:	1.8	2.1	2.1	1.9	2.7	2.7	47.9	47.9	48.8	47.9	47.9	46.9
IncremntDel:	0.0	0.1	0.1	0.1	0.4	0.4	3.1	3.1	6.0	3.1	3.1	1.1
InitQueuDel:	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:	1.9	2.2	2.2	2.0	3.2	3.2	51.0	51.0	54.8	51.0	51.0	48.0
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:	1.9	2.2	2.2	2.0	3.2	3.2	51.0	51.0	54.8	51.0	51.0	48.0
LOS by Move:	A	A	A	A	A	A	D-	D-	D-	D-	D-	D
HCM2kAvgQ:	8	47	47	18	164	164	58	58	93	58	58	23

Note: Queue reported is the distance per lane in feet.

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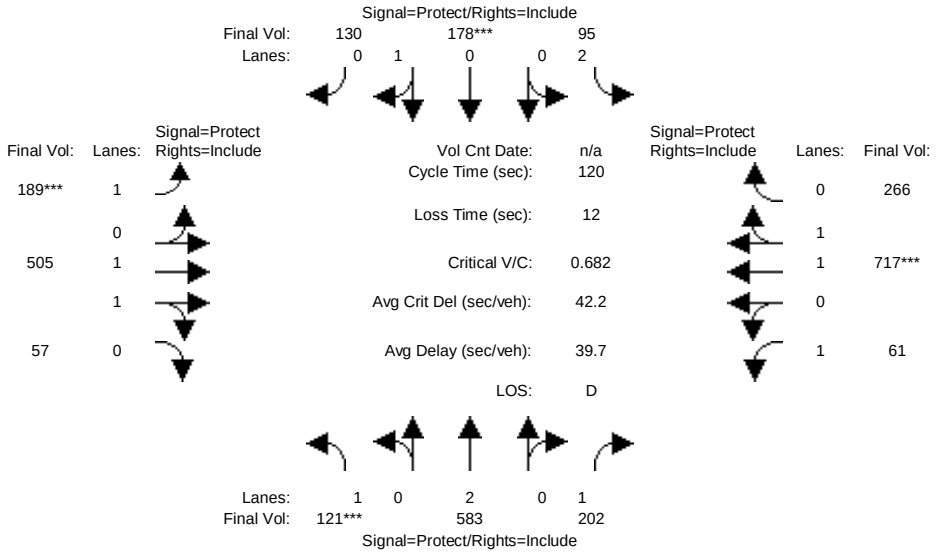
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #37: Miller Avenue/Bollinger Road



Street Name:	Miller Avenue						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	121	562	202	91	165	125	181	505	57	61	717	260
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	121	562	202	91	165	125	181	505	57	61	717	260
Added Vol:	0	21	0	4	13	5	8	0	0	0	0	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	121	583	202	95	178	130	189	505	57	61	717	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:	121	583	202	95	178	130	189	505	57	61	717	266
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	121	583	202	95	178	130	189	505	57	61	717	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:	121	583	202	95	178	130	189	505	57	61	717	266
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	2.00	1.00	2.00	0.58	0.42	1.00	1.79	0.21	1.00	1.44	0.56
Final Sat.:	1750	3800	1750	3150	1040	760	1750	3324	375	1750	2698	1001
Capacity Analysis Module:												
Vol/Sat:	0.07	0.15	0.12	0.03	0.17	0.17	0.11	0.15	0.15	0.03	0.27	0.27
Crit Moves:	****				****		****				****	
Green Time:	12.2	30.6	30.6	11.6	30.1	30.1	19.0	47.5	47.5	18.2	46.7	46.7
Volume/Cap:	0.68	0.60	0.45	0.31	0.68	0.68	0.68	0.38	0.38	0.23	0.68	0.68
Uniform Del:	52.1	39.3	37.6	50.4	40.6	40.6	47.7	25.8	25.8	44.7	30.5	30.5
IncremntDel:	19.2	2.8	3.3	2.6	8.1	8.1	12.8	0.8	0.8	2.0	2.6	2.6
InitQueuDel:	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	42.1	40.9	53.1	48.7	48.7	60.5	26.6	26.6	46.7	33.1	33.1
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:	71.3	42.1	40.9	53.1	48.7	48.7	60.5	26.6	26.6	46.7	33.1	33.1
LOS by Move:	E	D	D	D-	D	D	E	C	C	D	C-	C-
HCM2kAvgQ:	149	249	174	55	294	294	208	187	187	56	400	400

Note: Queue reported is the distance per lane in feet.

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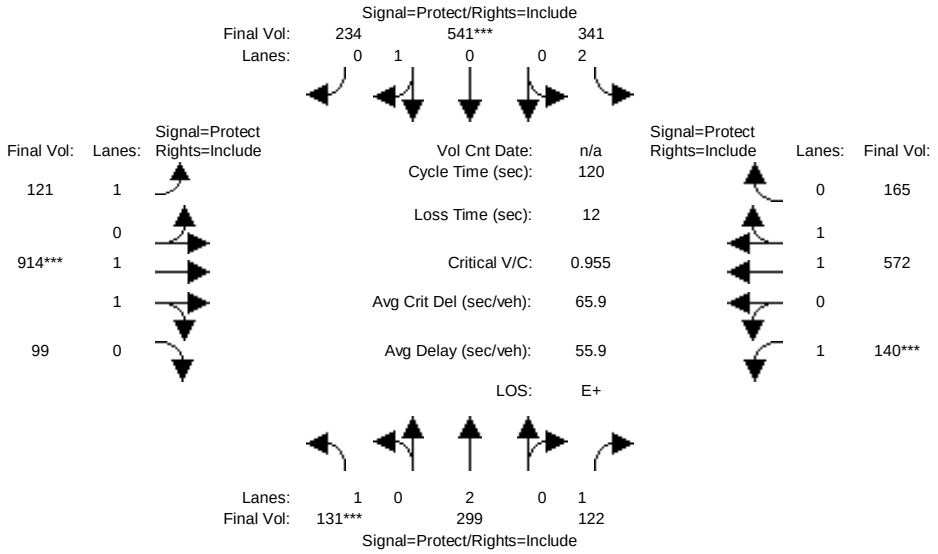
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #37: Miller Avenue/Bollinger Road



Street Name:	Miller Avenue						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	131	227	122	318	463	205	94	914	99	140	572	144
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	131	227	122	318	463	205	94	914	99	140	572	144
Added Vol:	0	72	0	23	78	29	27	0	0	0	0	21
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	131	299	122	341	541	234	121	914	99	140	572	165
User Adj:	1.00	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	299	122	341	541	234	121	914	99	140	572	165
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	131	299	122	341	541	234	121	914	99	140	572	165
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	299	122	341	541	234	121	914	99	140	572	165
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	2.00	1.00	2.00	0.70	0.30	1.00	1.80	0.20	1.00	1.54	0.46
Final Sat.:	1750	3800	1750	3150	1257	543	1750	3338	362	1750	2871	828
Capacity Analysis Module:												
Vol/Sat:	0.07	0.08	0.07	0.11	0.43	0.43	0.07	0.27	0.27	0.08	0.20	0.20
Crit Moves:	****				****			****			****	
Green Time:	9.4	27.6	27.6	35.9	54.1	54.1	11.5	34.4	34.4	10.1	33.0	33.0
Volume/Cap:	0.95	0.34	0.30	0.36	0.95	0.95	0.72	0.95	0.95	0.95	0.72	0.72
Uniform Del:	55.1	38.6	38.2	33.1	31.8	31.8	52.7	42.0	42.0	54.7	39.4	39.4
IncremntDel:	65.6	1.1	1.9	1.1	22.3	22.3	23.7	18.7	18.7	63.1	4.5	4.5
InitQueuDel:	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:	120.6	39.6	40.1	34.1	54.1	54.1	76.5	60.7	60.7	117.9	43.9	43.9
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:	120.6	39.6	40.1	34.1	54.1	54.1	76.5	60.7	60.7	117.9	43.9	43.9
LOS by Move:	F	D	D	C-	D-	D-	E-	E	E	F	D	D
HCM2kAvgQ:	213	117	102	149	857	857	156	592	592	224	344	344

Note: Queue reported is the distance per lane in feet.

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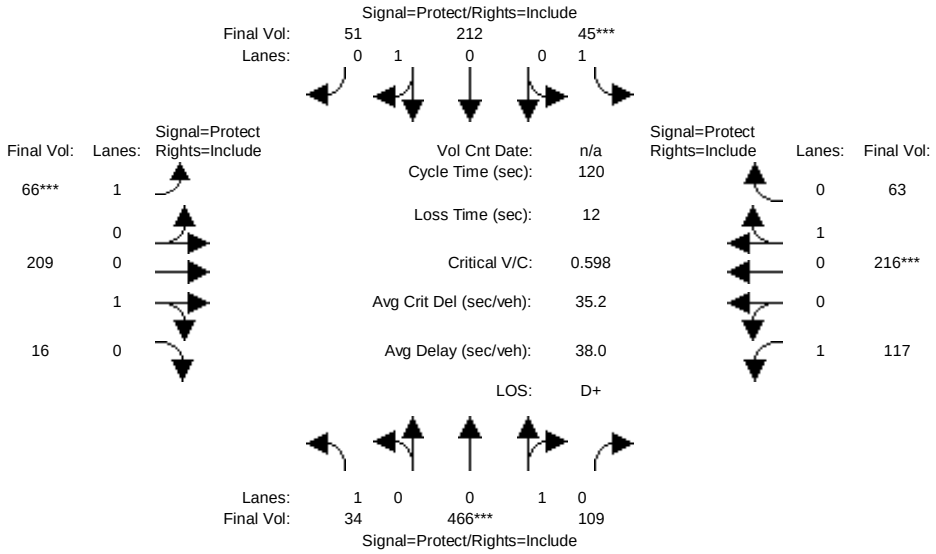
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #38: Miller Avenue/Rainbow Drive



Street Name:	Miller Avenue						Rainbow Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	34	446	109	44	200	51	66	209	16	117	216	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:	34	446	109	44	200	51	66	209	16	117	216	61
Added Vol:	0	20	0	1	12	0	0	0	0	0	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	466	109	45	212	51	66	209	16	117	216	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	109	45	212	51	66	209	16	117	216	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	466	109	45	212	51	66	209	16	117	216	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	109	45	212	51	66	209	16	117	216	63
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	0.81	0.19	1.00	0.81	0.19	1.00	0.93	0.07	1.00	0.77	0.23
Final Sat.:	1750	1459	341	1750	1451	349	1750	1672	128	1750	1394	406
Capacity Analysis Module:												
Vol/Sat:	0.02	0.32	0.32	0.03	0.15	0.15	0.04	0.13	0.13	0.07	0.16	0.16
Crit Moves:		****		****			****				****	
Green Time:	20.0	63.0	63.0	7.0	50.0	50.0	7.4	24.8	24.8	13.2	30.6	30.6
Volume/Cap:	0.12	0.61	0.61	0.44	0.35	0.35	0.61	0.61	0.61	0.61	0.61	0.61
Uniform Del:	42.5	19.9	19.9	54.6	23.9	23.9	54.9	43.2	43.2	50.9	39.4	39.4
IncremntDel:	0.8	2.9	2.9	13.2	1.3	1.3	22.8	7.2	7.2	13.3	5.9	5.9
InitQueuDel:	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:	43.3	22.8	22.8	67.8	25.2	25.2	77.7	50.4	50.4	64.2	45.3	45.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.3	22.8	22.8	67.8	25.2	25.2	77.7	50.4	50.4	64.2	45.3	45.3
LOS by Move:	D	C+	C+	E	C	C	E-	D	D	E	D	D
HCM2kAvgQ:	29	391	391	57	171	171	90	215	215	135	253	253

Note: Queue reported is the distance per lane in feet.

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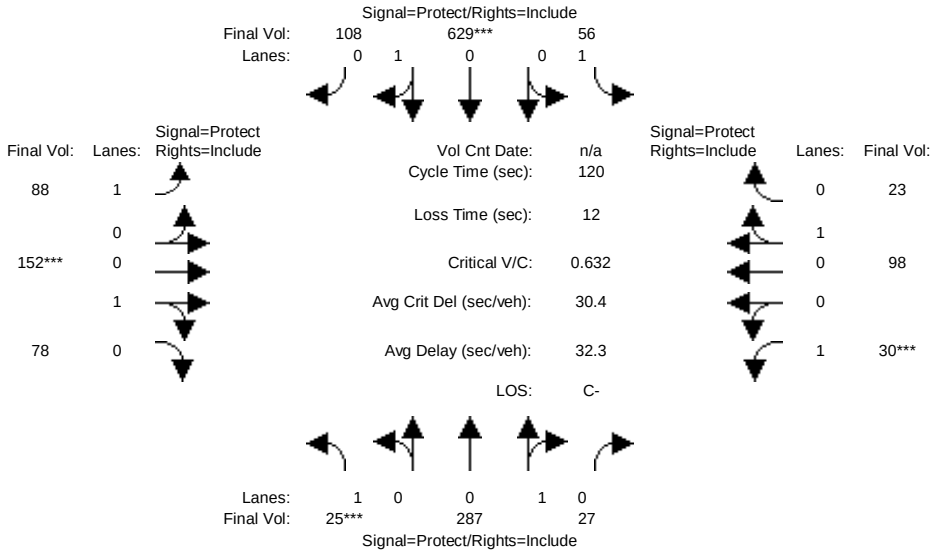
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #38: Miller Avenue/Rainbow Drive



Street Name:	Miller Avenue						Rainbow Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	25	220	27	50	556	108	88	152	78	30	98	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	220	27	50	556	108	88	152	78	30	98	18
Added Vol:	0	67	0	6	73	0	0	0	0	0	0	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	25	287	27	56	629	108	88	152	78	30	98	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:	25	287	27	56	629	108	88	152	78	30	98	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	287	27	56	629	108	88	152	78	30	98	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:	25	287	27	56	629	108	88	152	78	30	98	23
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	0.91	0.09	1.00	0.85	0.15	1.00	0.66	0.34	1.00	0.81	0.19
Final Sat.:	1750	1645	155	1750	1536	264	1750	1190	610	1750	1458	342
Capacity Analysis Module:												
Vol/Sat:	0.01	0.17	0.17	0.03	0.41	0.41	0.05	0.13	0.13	0.02	0.07	0.07
Crit Moves:	****				****			****			****	
Green Time:	7.0	58.9	58.9	19.7	71.6	71.6	12.1	22.4	22.4	7.0	17.3	17.3
Volume/Cap:	0.24	0.36	0.36	0.19	0.69	0.69	0.50	0.69	0.69	0.29	0.47	0.47
Uniform Del:	54.0	18.8	18.8	43.3	16.5	16.5	51.1	45.5	45.5	54.1	47.1	47.1
IncremntDel:	5.6	1.1	1.1	1.5	3.6	3.6	9.8	10.9	10.9	7.2	5.9	5.9
InitQueuDel:	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:	59.6	19.9	19.9	44.8	20.1	20.1	60.8	56.4	56.4	61.3	53.1	53.1
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:	59.6	19.9	19.9	44.8	20.1	20.1	60.8	56.4	56.4	61.3	53.1	53.1
LOS by Move:	E+	B-	B-	D	C+	C+	E	E+	E+	E	D-	D-
HCM2kAvgQ:	29	184	184	50	495	495	99	237	237	36	119	119

Note: Queue reported is the distance per lane in feet.

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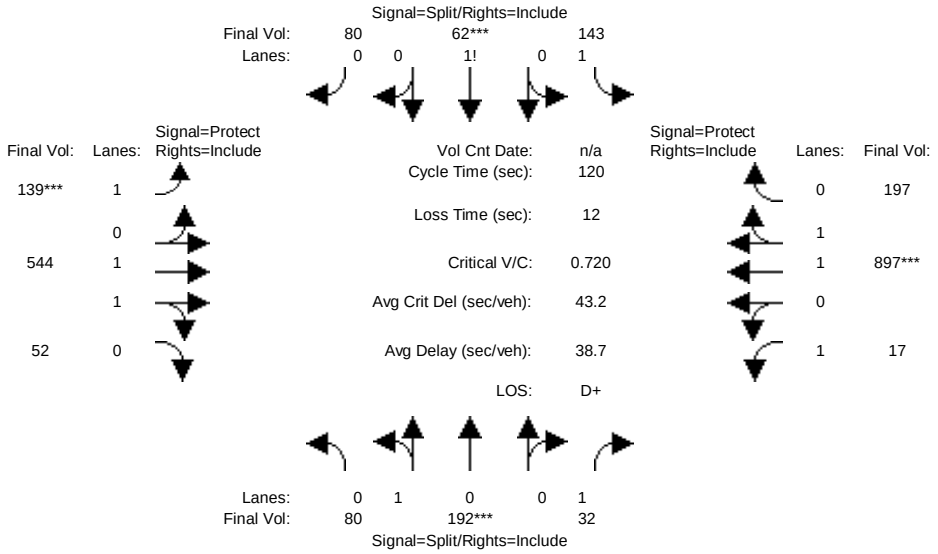
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #39: Miller Avenue/Prospect Road



Street Name:	Miller Avenue						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	80	187	32	140	59	74	130	544	52	17	897	192
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	80	187	32	140	59	74	130	544	52	17	897	192
Added Vol:	0	5	0	3	3	6	9	0	0	0	0	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	80	192	32	143	62	80	139	544	52	17	897	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:	80	192	32	143	62	80	139	544	52	17	897	197
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	192	32	143	62	80	139	544	52	17	897	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:	80	192	32	143	62	80	139	544	52	17	897	197
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	0.29	0.71	1.00	1.34	0.29	0.37	1.00	1.82	0.18	1.00	1.63	0.37
Final Sat.:	529	1271	1750	2336	508	656	1750	3377	323	1750	3033	666
Capacity Analysis Module:												
Vol/Sat:	0.15	0.15	0.02	0.06	0.12	0.12	0.08	0.16	0.16	0.01	0.30	0.30
Crit Moves:		****			****		****				****	
Green Time:	25.2	25.2	25.2	20.3	20.3	20.3	13.2	45.9	45.9	16.6	49.3	49.3
Volume/Cap:	0.72	0.72	0.09	0.36	0.72	0.72	0.72	0.42	0.42	0.07	0.72	0.72
Uniform Del:	44.1	44.1	38.2	44.1	47.1	47.1	51.6	27.3	27.3	45.0	29.6	29.6
IncremntDel:	11.3	11.3	0.5	1.3	10.8	10.8	20.6	0.9	0.9	0.6	3.0	3.0
InitQueuDel:	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:	55.4	55.4	38.6	45.4	57.9	57.9	72.2	28.2	28.2	45.5	32.6	32.6
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:	55.4	55.4	38.6	45.4	57.9	57.9	72.2	28.2	28.2	45.5	32.6	32.6
LOS by Move:	E+	E+	D+	D	E+	E+	E	C	C	D	C-	C-
HCM2kAvgQ:	278	278	26	100	237	237	172	206	206	15	451	451

Note: Queue reported is the distance per lane in feet.

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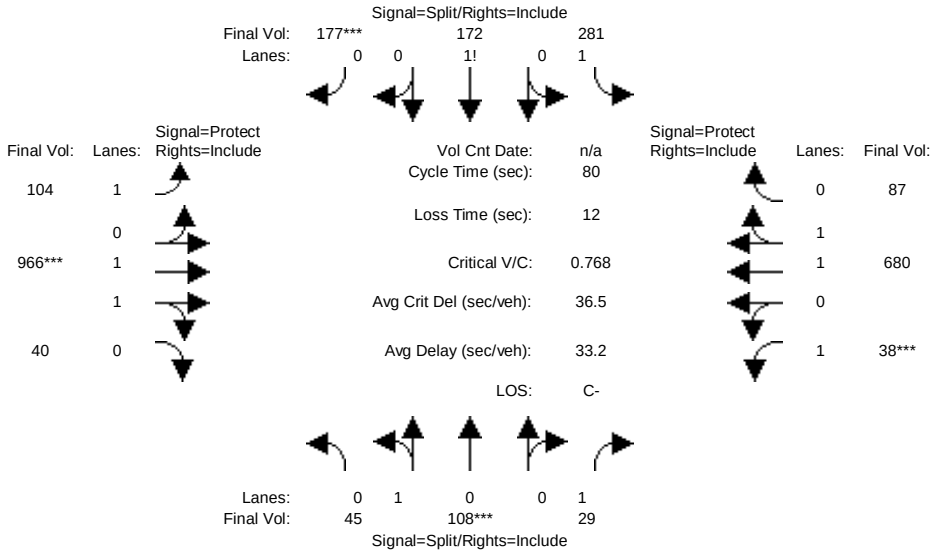
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #39: Miller Avenue/Prospect Road



Street Name:	Miller Avenue						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	45	92	29	261	155	142	72	966	40	38	680	68
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	92	29	261	155	142	72	966	40	38	680	68
Added Vol:	0	16	0	20	17	35	32	0	0	0	0	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	108	29	281	172	177	104	966	40	38	680	87
User Adj:	1.00	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:	45	108	29	281	172	177	104	966	40	38	680	87
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	108	29	281	172	177	104	966	40	38	680	87
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	45	108	29	281	172	177	104	966	40	38	680	87
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.95	0.95	0.92	0.97	0.95	0.92	0.98	0.95
Lanes:	0.29	0.71	1.00	1.29	0.35	0.36	1.00	1.92	0.08	1.00	1.77	0.23
Final Sat.:	529	1271	1750	2262	627	646	1750	3553	147	1750	3280	420
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.02	0.12	0.27	0.27	0.06	0.27	0.27	0.02	0.21	0.21
Crit Moves:		****				****		****		****		
Green Time:	10.0	10.0	10.0	25.6	25.6	25.6	9.6	25.4	25.4	7.0	22.8	22.8
Volume/Cap:	0.68	0.68	0.13	0.39	0.86	0.86	0.49	0.86	0.86	0.25	0.73	0.73
Uniform Del:	33.5	33.5	31.1	21.1	25.5	25.5	32.9	25.6	25.6	34.0	25.8	25.8
IncremntDel:	15.4	15.4	1.3	0.7	12.3	12.3	8.1	8.1	8.1	3.8	4.4	4.4
InitQueuDel:	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:	48.8	48.8	32.4	21.8	37.8	37.8	41.0	33.7	33.7	37.9	30.2	30.2
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:	48.8	48.8	32.4	21.8	37.8	37.8	41.0	33.7	33.7	37.9	30.2	30.2
LOS by Move:	D	D	C-	C+	D+	D+	D	C-	C-	D+	C	C
HCM2kAvgQ:	131	131	19	117	378	378	82	376	376	29	257	257

Note: Queue reported is the distance per lane in feet.

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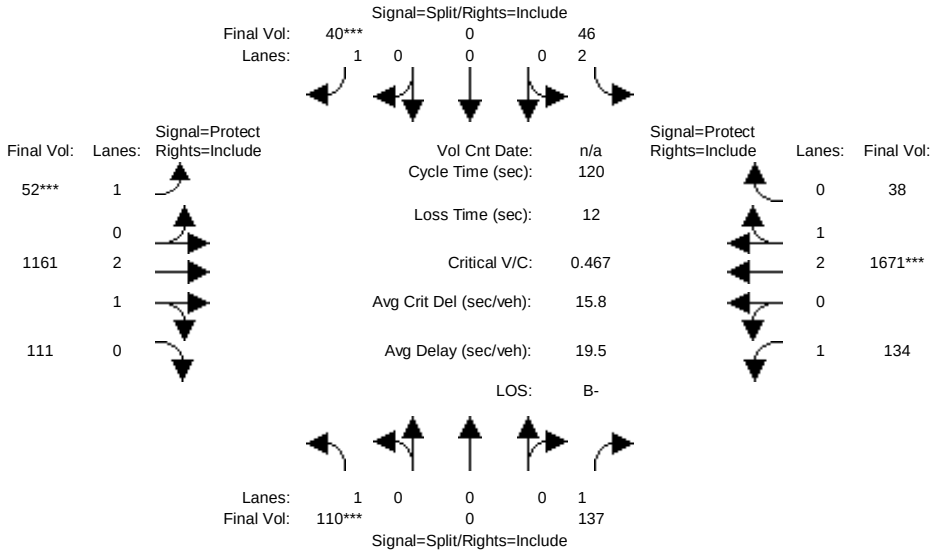
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #40: Stevens Creek Boulevard/Finch Avenue



Street Name:	Finch Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	0	10	0	0	0	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	110	0	137	46	0	40	52	1119	111	134	1647	38
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	110	0	137	46	0	40	52	1119	111	134	1647	38
Added Vol:	0	0	0	0	0	0	0	42	0	0	24	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	110	0	137	46	0	40	52	1161	111	134	1671	38
User Adj:	1.00	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:	110	0	137	46	0	40	52	1161	111	134	1671	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	110	0	137	46	0	40	52	1161	111	134	1671	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	110	0	137	46	0	40	52	1161	111	134	1671	38
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.99	0.95	0.92	0.98	0.95
Lanes:	1.00	0.00	1.00	2.00	0.00	1.00	1.00	2.73	0.27	1.00	2.93	0.07
Final Sat.:	1750	0	1750	3150	0	1750	1750	5111	489	1750	5475	125
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.08	0.01	0.00	0.02	0.03	0.23	0.23	0.08	0.31	0.31
Crit Moves:	****					****	****				****	
Green Time:	20.1	0.0	20.1	5.9	0.0	5.9	7.6	64.3	64.3	21.7	78.4	78.4
Volume/Cap:	0.38	0.00	0.47	0.30	0.00	0.47	0.47	0.42	0.42	0.42	0.47	0.47
Uniform Del:	44.4	0.0	45.1	55.1	0.0	55.5	54.2	16.7	16.7	43.6	10.4	10.4
IncremntDel:	3.6	0.0	5.3	4.9	0.0	17.2	13.4	0.4	0.4	4.1	0.4	0.4
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	48.0	0.0	50.4	60.0	0.0	72.8	67.7	17.2	17.2	47.7	10.8	10.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.0	0.0	50.4	60.0	0.0	72.8	67.7	17.2	17.2	47.7	10.8	10.8
LOS by Move:	D	A	D	E+	A	E	E	B	B	D	B+	B+
HCM2kAvgQ:	103	0	133	32	0	55	65	234	234	125	263	263

Note: Queue reported is the distance per lane in feet.

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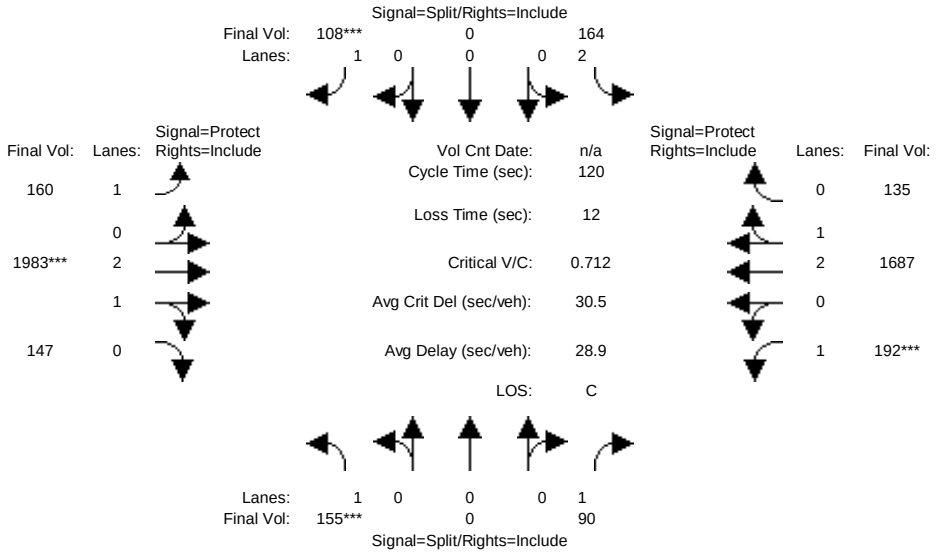
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #40: Stevens Creek Boulevard/Finch Avenue



Street Name:	Finch Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	0	10	0	0	0	7	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	155	0	90	164	0	108	160	1729	147	192	1607	135
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	155	0	90	164	0	108	160	1729	147	192	1607	135
Added Vol:	0	0	0	0	0	0	0	254	0	0	80	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	155	0	90	164	0	108	160	1983	147	192	1687	135
User Adj:	1.00	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:	155	0	90	164	0	108	160	1983	147	192	1687	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	155	0	90	164	0	108	160	1983	147	192	1687	135
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	155	0	90	164	0	108	160	1983	147	192	1687	135
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.99	0.95	0.92	0.99	0.95
Lanes:	1.00	0.00	1.00	2.00	0.00	1.00	1.00	2.79	0.21	1.00	2.77	0.23
Final Sat.:	1750	0	1750	3150	0	1750	1750	5213	386	1750	5185	415
Capacity Analysis Module:												
Vol/Sat:	0.09	0.00	0.05	0.05	0.00	0.06	0.09	0.38	0.38	0.11	0.33	0.33
Crit Moves:	****					****		****		****		
Green Time:	14.9	0.0	14.9	10.4	0.0	10.4	18.1	64.2	64.2	18.5	64.5	64.5
Volume/Cap:	0.71	0.00	0.41	0.60	0.00	0.71	0.61	0.71	0.71	0.71	0.61	0.61
Uniform Del:	50.5	0.0	48.5	52.8	0.0	53.3	47.6	21.0	21.0	48.2	19.0	19.0
IncremntDel:	17.9	0.0	5.7	9.4	0.0	24.6	9.9	1.5	1.5	14.8	0.9	0.9
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	68.4	0.0	54.2	62.2	0.0	77.9	57.5	22.4	22.4	63.0	19.9	19.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	68.4	0.0	54.2	62.2	0.0	77.9	57.5	22.4	22.4	63.0	19.9	19.9
LOS by Move:	E	A	D-	E	A	E-	E+	C+	C+	E	B-	B-
HCM2kAvgQ:	185	0	92	112	0	142	170	510	510	217	390	390

Note: Queue reported is the distance per lane in feet.

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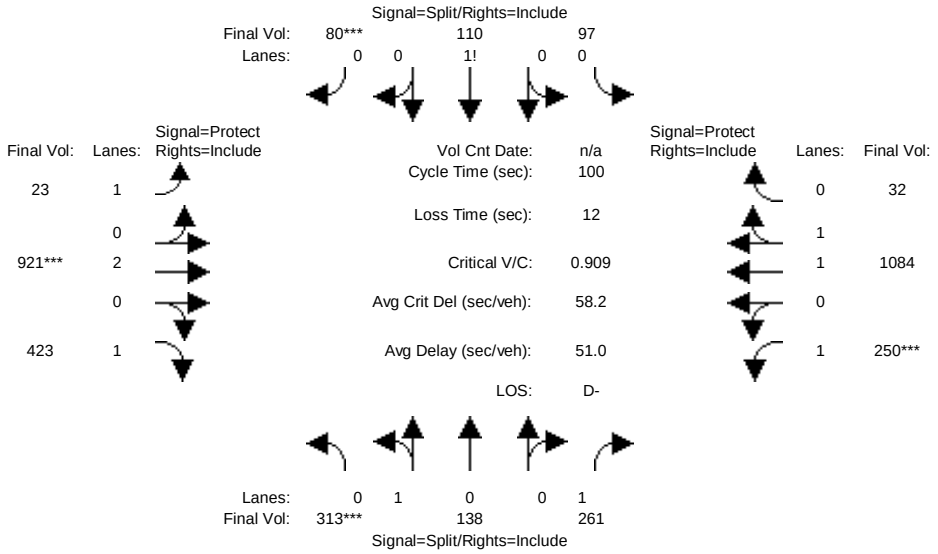
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #41: Tantau Avenue/Homestead Road



Street Name:	Tantau Avenu						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	305	138	261	97	110	80	23	902	423	250	1037	32
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	305	138	261	97	110	80	23	902	423	250	1037	32
Added Vol:	8	0	0	0	0	0	0	19	0	0	47	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	313	138	261	97	110	80	23	921	423	250	1084	32
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	313	138	261	97	110	80	23	921	423	250	1084	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	313	138	261	97	110	80	23	921	423	250	1084	32
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	313	138	261	97	110	80	23	921	423	250	1084	32
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	0.97	0.95
Lanes:	0.69	0.31	1.00	0.34	0.38	0.28	1.00	2.00	1.00	1.00	1.94	0.06
Final Sat.:	1249	551	1750	591	671	488	1750	3800	1750	1750	3594	106
Capacity Analysis Module:												
Vol/Sat:	0.25	0.25	0.15	0.16	0.16	0.16	0.01	0.24	0.24	0.14	0.30	0.30
Crit Moves:	****					****		****		****		
Green Time:	27.6	27.6	27.6	18.0	18.0	18.0	8.0	26.7	26.7	15.7	34.4	34.4
Volume/Cap:	0.91	0.91	0.54	0.91	0.91	0.91	0.16	0.91	0.91	0.91	0.88	0.88
Uniform Del:	35.0	35.0	30.8	40.2	40.2	40.2	42.9	35.5	35.5	41.4	30.8	30.8
IncremntDel:	23.1	23.1	4.3	31.9	31.9	31.9	2.5	13.4	23.8	35.1	8.7	8.7
InitQueuDel:	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:	58.1	58.1	35.1	72.1	72.1	72.1	45.4	48.8	59.3	76.6	39.5	39.5
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:	58.1	58.1	35.1	72.1	72.1	72.1	45.4	48.8	59.3	76.6	39.5	39.5
LOS by Move:	E+	E+	D+	E	E	E	D	D	E+	E-	D	D
HCM2kAvgQ:	452	452	196	327	327	327	21	440	438	295	494	494

Note: Queue reported is the distance per lane in feet.

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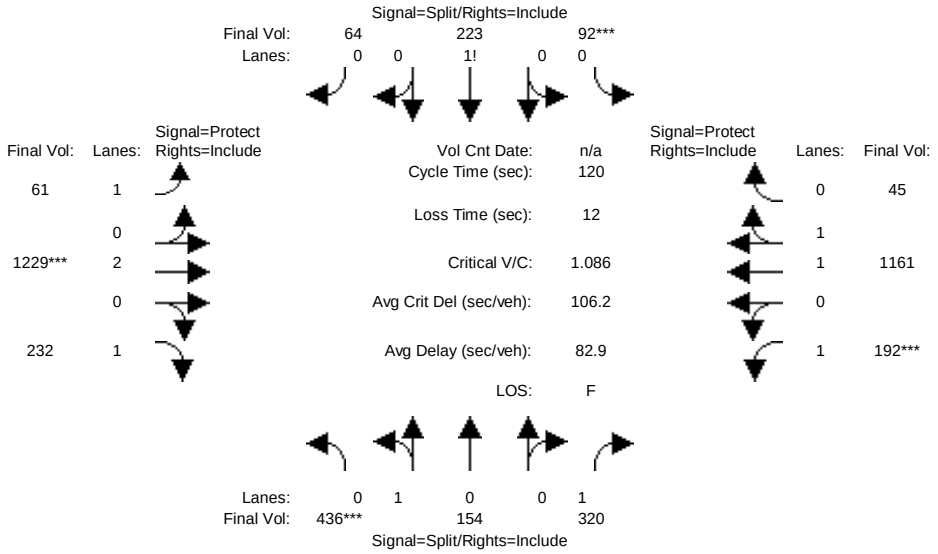
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #41: Tantau Avenue/Homestead Road



Street Name:	Tantau Avenu						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	409	154	320	92	223	64	61	1113	232	192	1000	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	409	154	320	92	223	64	61	1113	232	192	1000	45
Added Vol:	27	0	0	0	0	0	0	116	0	0	161	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	436	154	320	92	223	64	61	1229	232	192	1161	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	436	154	320	92	223	64	61	1229	232	192	1161	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	436	154	320	92	223	64	61	1229	232	192	1161	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	436	154	320	92	223	64	61	1229	232	192	1161	45
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	0.97	0.95
Lanes:	0.74	0.26	1.00	0.24	0.59	0.17	1.00	2.00	1.00	1.00	1.92	0.08
Final Sat.:	1330	470	1750	425	1030	296	1750	3800	1750	1750	3562	138
Capacity Analysis Module:												
Vol/Sat:	0.33	0.33	0.18	0.22	0.22	0.22	0.03	0.32	0.13	0.11	0.33	0.33
Crit Moves:	****			****				****		****		
Green Time:	36.2	36.2	36.2	23.9	23.9	23.9	7.3	35.7	35.7	12.1	40.6	40.6
Volume/Cap:	1.09	1.09	0.61	1.09	1.09	1.09	0.58	1.09	0.45	1.09	0.96	0.96
Uniform Del:	41.9	41.9	35.8	48.0	48.0	48.0	54.9	42.1	34.1	53.9	39.0	39.0
IncremntDel:	64.0	64.0	5.1	73.2	73.2	73.2	20.8	53.3	2.7	92.5	18.1	18.1
InitQueuDel:	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:	105.9	106	40.9	121.2	121	121.2	75.7	95.5	36.8	146.5	57.1	57.1
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:	105.9	106	40.9	121.2	121	121.2	75.7	95.5	36.8	146.5	57.1	57.1
LOS by Move:	F	F	D	F	F	F	E-	F	D+	F	E+	E+
HCM2kAvgQ:	830	830	284	580	580	580	82	820	190	330	693	693

Note: Queue reported is the distance per lane in feet.

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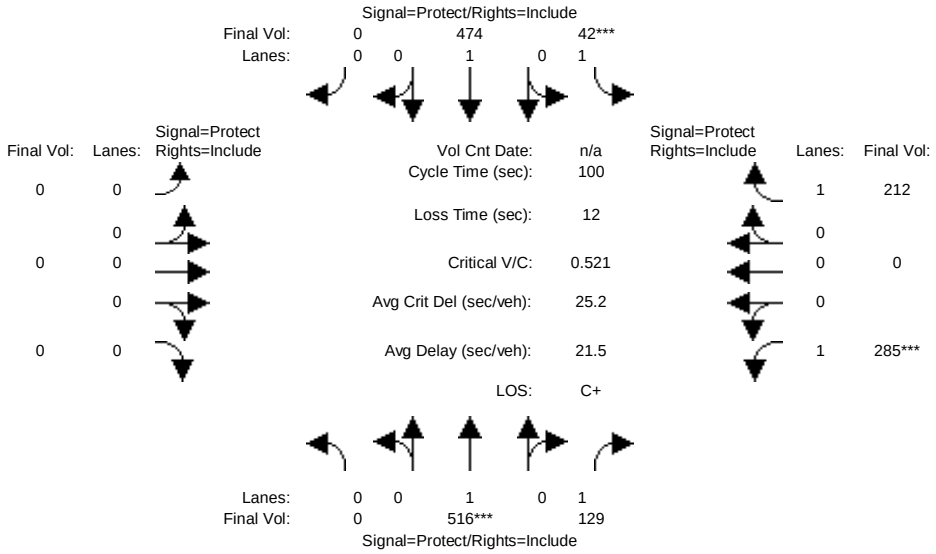
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #42: Tantau Avenue/Pruneridge Avenue



Street Name:	Tantau Avenu						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	516	124	42	474	0	0	0	0	285	0	204
Growth Adj:	1.00	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	516	124	42	474	0	0	0	0	285	0	204
Added Vol:	0	0	5	0	0	0	0	0	0	0	0	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	516	129	42	474	0	0	0	0	285	0	212
User Adj:	1.00	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	516	129	42	474	0	0	0	0	285	0	212
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	516	129	42	474	0	0	0	0	285	0	212
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	516	129	42	474	0	0	0	0	285	0	212
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
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	1750	1750	1900	0	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.07	0.02	0.25	0.00	0.00	0.00	0.00	0.16	0.00	0.12
Crit Moves:		****		****						****		
Green Time:	0.0	50.6	50.6	7.0	57.6	0.0	0.0	0.0	0.0	30.4	0.0	30.4
Volume/Cap:	0.00	0.54	0.15	0.34	0.43	0.00	0.00	0.00	0.00	0.54	0.00	0.40
Uniform Del:	0.0	16.7	13.2	44.3	12.0	0.0	0.0	0.0	0.0	29.0	0.0	27.6
IncremntDel:	0.0	2.1	0.3	7.5	1.2	0.0	0.0	0.0	0.0	3.8	0.0	2.2
InitQueuDel:	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	18.9	13.5	51.8	13.2	0.0	0.0	0.0	0.0	32.8	0.0	29.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	18.9	13.5	51.8	13.2	0.0	0.0	0.0	0.0	32.8	0.0	29.8
LOS by Move:	A	B-	B	D-	B	A	A	A	A	C-	A	C
HCM2kAvgQ:	0	271	56	43	205	0	0	0	0	207	0	143

Note: Queue reported is the distance per lane in feet.

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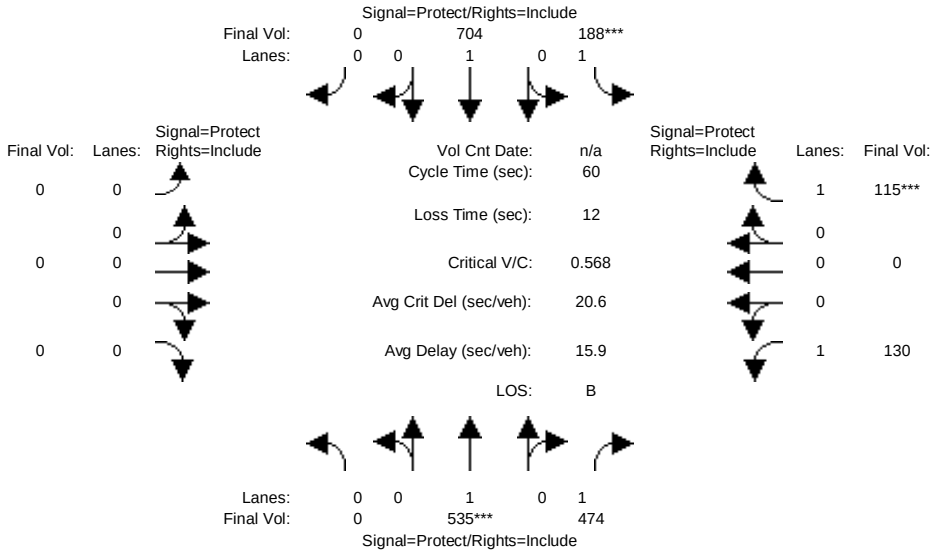
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #42: Tantau Avenue/Pruneridge Avenue



Street Name:	Tantau Avenu						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	535	445	188	704	0	0	0	0	130	0	88
Growth Adj:	1.00	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	535	445	188	704	0	0	0	0	130	0	88
Added Vol:	0	0	29	0	0	0	0	0	0	0	0	27
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	535	474	188	704	0	0	0	0	130	0	115
User Adj:	1.00	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	535	474	188	704	0	0	0	0	130	0	115
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	535	474	188	704	0	0	0	0	130	0	115
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	535	474	188	704	0	0	0	0	130	0	115
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
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	1750	1750	1900	0	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.28	0.27	0.11	0.37	0.00	0.00	0.00	0.00	0.07	0.00	0.07
Crit Moves:		****		****								****
Green Time:	0.0	27.5	27.5	10.5	38.0	0.0	0.0	0.0	0.0	10.0	0.0	10.0
Volume/Cap:	0.00	0.61	0.59	0.61	0.59	0.00	0.00	0.00	0.00	0.45	0.00	0.39
Uniform Del:	0.0	12.2	12.1	22.9	6.4	0.0	0.0	0.0	0.0	22.5	0.0	22.3
IncremntDel:	0.0	3.2	3.2	8.9	2.1	0.0	0.0	0.0	0.0	4.9	0.0	4.0
InitQueuDel:	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	15.5	15.3	31.8	8.5	0.0	0.0	0.0	0.0	27.4	0.0	26.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	15.5	15.3	31.8	8.5	0.0	0.0	0.0	0.0	27.4	0.0	26.3
LOS by Move:	A	B	B	C	A	A	A	A	A	C	A	C
HCM2kAvgQ:	0	206	194	115	205	0	0	0	0	72	0	62

Note: Queue reported is the distance per lane in feet.

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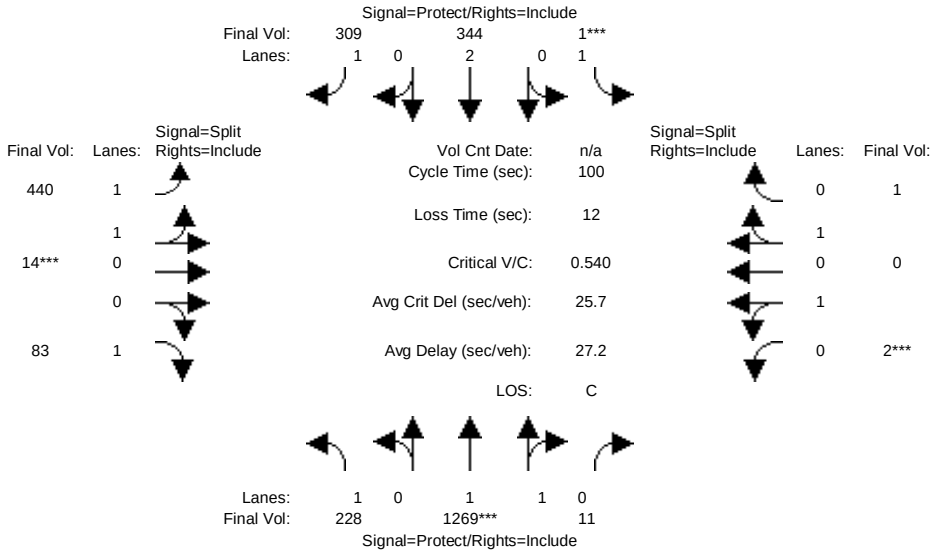
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #43: Tantau Avenue/Vallco Parkway



Street Name:	Tantau Avenu						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	228	1269	11	1	344	309	440	14	83	2	0	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	228	1269	11	1	344	309	440	14	83	2	0	1
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:	228	1269	11	1	344	309	440	14	83	2	0	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	228	1269	11	1	344	309	440	14	83	2	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	228	1269	11	1	344	309	440	14	83	2	0	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	228	1269	11	1	344	309	440	14	83	2	0	1
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	1.00	0.92	0.93	0.95	0.92	0.95	1.00	0.95
Lanes:	1.00	1.98	0.02	1.00	2.00	1.00	1.94	0.06	1.00	1.00	0.00	1.00
Final Sat.:	1750	3668	32	1750	3800	1750	3441	109	1750	1800	0	1800
Capacity Analysis Module:												
Vol/Sat:	0.13	0.35	0.35	0.00	0.09	0.18	0.13	0.13	0.05	0.00	0.00	0.00
Crit Moves:		****		****				****		****		
Green Time:	25.0	51.8	51.8	7.0	33.9	33.9	19.2	19.2	19.2	10.0	0.0	10.0
Volume/Cap:	0.52	0.67	0.67	0.01	0.27	0.52	0.67	0.67	0.25	0.01	0.00	0.01
Uniform Del:	32.4	17.7	17.7	43.3	24.1	26.6	37.5	37.5	34.3	40.5	0.0	40.5
IncremntDel:	4.4	1.9	1.9	0.1	0.5	3.3	5.1	5.1	1.8	0.1	0.0	0.0
InitQueuDel:	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	0.00	1.00
Delay/Veh:	36.8	19.6	19.6	43.4	24.6	29.8	42.6	42.6	36.1	40.6	0.0	40.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.8	19.6	19.6	43.4	24.6	29.8	42.6	42.6	36.1	40.6	0.0	40.5
LOS by Move:	D+	B-	B-	D	C	C	D	D	D+	D	A	D
HCM2kAvgQ:	175	384	384	1	96	214	201	201	61	2	0	1

Note: Queue reported is the distance per lane in feet.

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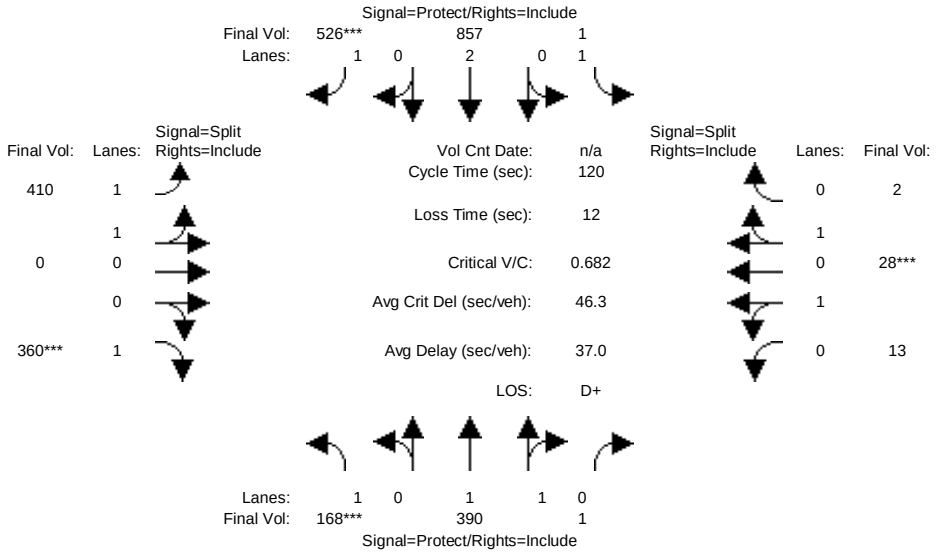
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #43: Tantau Avenue/Vallco Parkway



Street Name:	Tantau Avenu						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	168	390	1	1	857	526	410	0	360	13	28	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	168	390	1	1	857	526	410	0	360	13	28	2
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:	168	390	1	1	857	526	410	0	360	13	28	2
User Adj:	1.00	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:	168	390	1	1	857	526	410	0	360	13	28	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	168	390	1	1	857	526	410	0	360	13	28	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	168	390	1	1	857	526	410	0	360	13	28	2
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	1.00	0.92	0.93	1.00	0.92	0.95	0.95	0.95
Lanes:	1.00	1.99	0.01	1.00	2.00	1.00	2.00	0.00	1.00	0.60	1.31	0.09
Final Sat.:	1750	3691	9	1750	3800	1750	3550	0	1750	1088	2344	167
Capacity Analysis Module:												
Vol/Sat:	0.10	0.11	0.11	0.00	0.23	0.30	0.12	0.00	0.21	0.01	0.01	0.01
Crit Moves:	****					****			****		****	
Green Time:	15.6	41.6	41.6	23.0	48.9	48.9	33.5	0.0	33.5	10.0	10.0	10.0
Volume/Cap:	0.74	0.31	0.31	0.00	0.55	0.74	0.41	0.00	0.74	0.14	0.14	0.14
Uniform Del:	50.2	28.7	28.7	39.3	27.2	30.1	35.3	0.0	39.3	51.0	51.0	51.0
IncremntDel:	19.1	0.6	0.6	0.0	1.4	6.7	1.3	0.0	9.6	1.0	1.0	1.0
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00
Delay/Veh:	69.3	29.3	29.3	39.3	28.6	36.8	36.5	0.0	48.9	52.0	52.0	52.0
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:	69.3	29.3	29.3	39.3	28.6	36.8	36.5	0.0	48.9	52.0	52.0	52.0
LOS by Move:	E	C	C	D	C	D+	D+	A	D	D-	D-	D-
HCM2kAvgQ:	201	133	133	1	303	467	166	0	357	22	22	22

Note: Queue reported is the distance per lane in feet.

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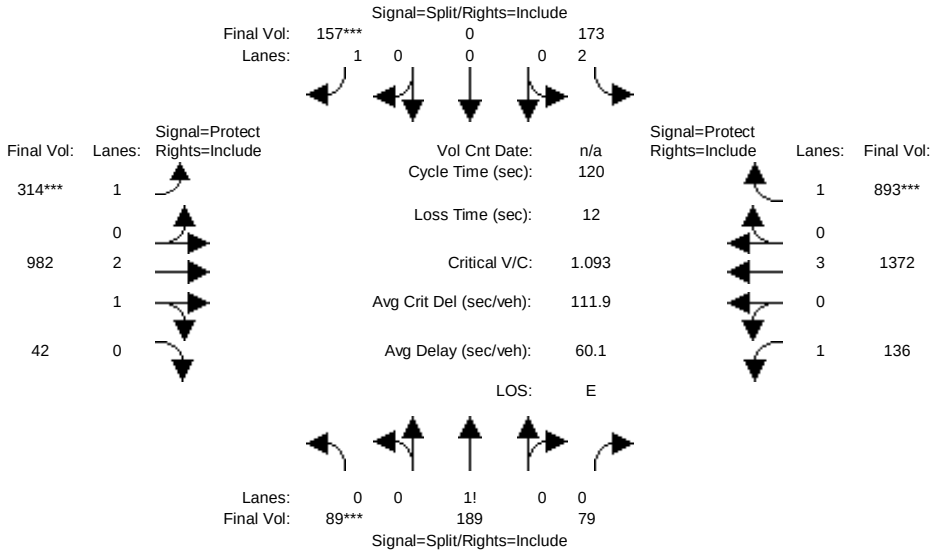
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #44: Tantau Avenue/Stevens Creek Boulevard



Street Name:	Tantau Avenu						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	89	189	79	173	0	157	314	982	42	136	1372	893
Growth Adj:	1.00	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	189	79	173	0	157	314	982	42	136	1372	893
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	189	79	173	0	157	314	982	42	136	1372	893
User Adj:	1.00	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	189	79	173	0	157	314	982	42	136	1372	893
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	189	79	173	0	157	314	982	42	136	1372	893
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	189	79	173	0	157	314	982	42	136	1372	893
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.83	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92
Lanes:	0.25	0.53	0.22	2.00	0.00	1.00	1.00	2.87	0.13	1.00	3.00	1.00
Final Sat.:	436	926	387	3150	0	1750	1750	5370	230	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.20	0.20	0.20	0.05	0.00	0.09	0.18	0.18	0.18	0.08	0.24	0.51
Crit Moves:	****					****	****					****
Green Time:	22.4	22.4	22.4	10.0	0.0	10.0	19.7	53.1	53.1	22.6	56.0	56.0
Volume/Cap:	1.09	1.09	1.09	0.66	0.00	1.08	1.09	0.41	0.41	0.41	0.52	1.09
Uniform Del:	48.8	48.8	48.8	53.3	0.0	55.0	50.2	22.8	22.8	42.9	22.5	32.0
IncremntDel:	77.5	77.5	77.5	12.3	0.0	96.5	80.7	0.5	0.5	3.8	0.7	60.4
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	126.3	126	126.3	65.6	0.0	151.5	130.9	23.4	23.4	46.7	23.2	92.5
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:	126.3	126	126.3	65.6	0.0	151.5	130.9	23.4	23.4	46.7	23.2	92.5
LOS by Move:	F	F	F	E	A	F	F	C	C	D	C	F
HCM2kAvgQ:	557	557	557	124	0	278	500	215	215	126	294	1243

Note: Queue reported is the distance per lane in feet.

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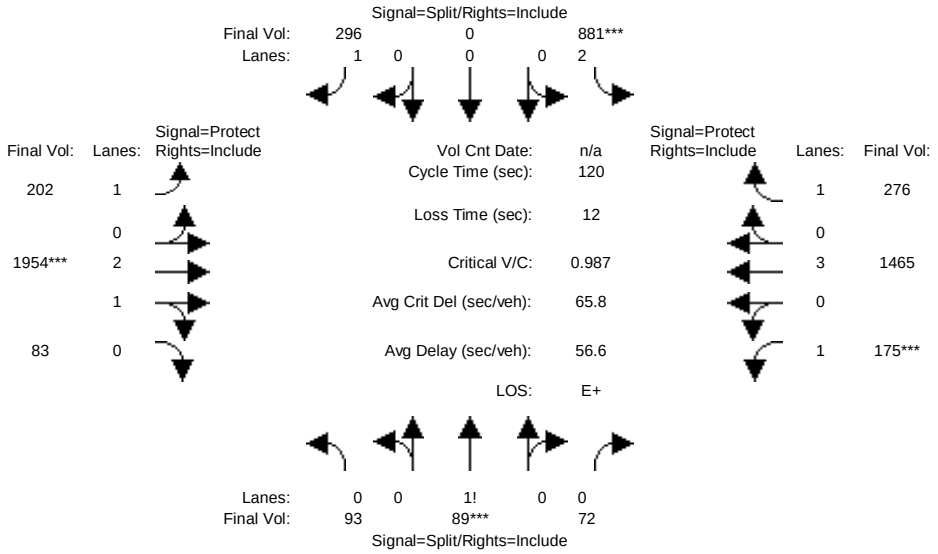
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #44: Tantau Avenue/Stevens Creek Boulevard



Street Name:	Tantau Avenu						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	93	89	72	881	0	296	202	1954	83	175	1465	276
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	93	89	72	881	0	296	202	1954	83	175	1465	276
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:	93	89	72	881	0	296	202	1954	83	175	1465	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:	93	89	72	881	0	296	202	1954	83	175	1465	276
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	93	89	72	881	0	296	202	1954	83	175	1465	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:	93	89	72	881	0	296	202	1954	83	175	1465	276
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.83	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92
Lanes:	0.37	0.35	0.28	2.00	0.00	1.00	1.00	2.87	0.13	1.00	3.00	1.00
Final Sat.:	641	613	496	3150	0	1750	1750	5372	228	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.15	0.15	0.15	0.28	0.00	0.17	0.12	0.36	0.36	0.10	0.26	0.16
Crit Moves:		****		****				****		****		
Green Time:	17.6	17.6	17.6	34.0	0.0	34.0	17.5	44.2	44.2	12.2	38.9	38.9
Volume/Cap:	0.99	0.99	0.99	0.99	0.00	0.60	0.79	0.99	0.99	0.99	0.79	0.49
Uniform Del:	51.1	51.1	51.1	42.8	0.0	37.1	49.5	37.6	37.6	53.8	36.9	32.5
IncremntDel:	53.0	53.0	53.0	27.2	0.0	5.2	21.9	17.0	17.0	64.4	3.6	3.0
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	104.0	104	104.0	70.0	0.0	42.3	71.4	54.7	54.7	118.2	40.5	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:	104.0	104	104.0	70.0	0.0	42.3	71.4	54.7	54.7	118.2	40.5	35.5
LOS by Move:	F	F	F	E	A	D	E	D-	D-	F	D	D+
HCM2kAvgQ:	371	371	371	634	0	266	246	791	791	276	450	224

Note: Queue reported is the distance per lane in feet.

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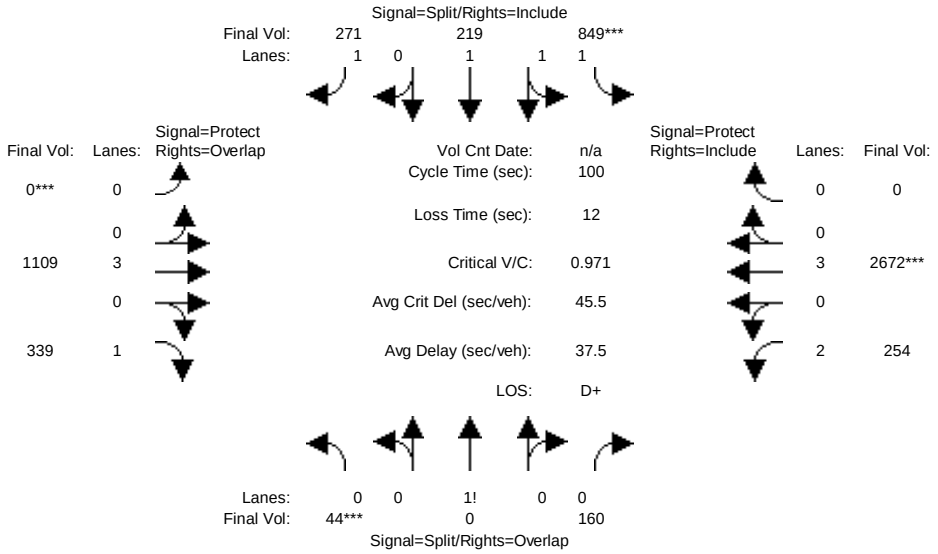
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #45: Stevens Creek Boulevard/Calvert Drive/I-280 Ramps



Street Name:	Stevens Creek Boulevard						Calvert Drive/I-280 Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	0	10	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	44	0	160	849	219	271	0	1085	292	254	2601	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:	44	0	160	849	219	271	0	1085	292	254	2601	0
Added Vol:	0	0	0	0	0	0	0	24	47	0	71	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	0	160	849	219	271	0	1109	339	254	2672	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:	44	0	160	849	219	271	0	1109	339	254	2672	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	0	160	849	219	271	0	1109	339	254	2672	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:	44	0	160	849	219	271	0	1109	339	254	2672	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.22	0.00	0.78	2.00	1.00	1.00	0.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:	377	0	1373	3150	1900	1750	0	5700	1750	3150	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.12	0.00	0.12	0.27	0.12	0.15	0.00	0.19	0.19	0.08	0.47	0.00
Crit Moves:	****			****			****				****	
Green Time:	12.0	0.0	26.1	27.7	27.7	27.7	0.0	34.1	46.1	14.1	48.3	0.0
Volume/Cap:	0.97	0.00	0.45	0.97	0.42	0.56	0.00	0.57	0.42	0.57	0.97	0.00
Uniform Del:	43.8	0.0	30.9	35.7	29.5	30.9	0.0	26.9	18.0	40.1	25.2	0.0
IncremntDel:	55.1	0.0	3.1	21.1	0.5	4.6	0.0	1.2	1.6	5.2	11.7	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	99.0	0.0	34.0	56.8	30.0	35.5	0.0	28.2	19.6	45.3	36.9	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:	99.0	0.0	34.0	56.8	30.0	35.5	0.0	28.2	19.6	45.3	36.9	0.0
LOS by Move:	F	A	C-	E+	C	D+	A	C	B-	D	D+	A
HCM2kAvgQ:	275	0	148	530	142	205	0	242	189	130	828	0

Note: Queue reported is the distance per lane in feet.

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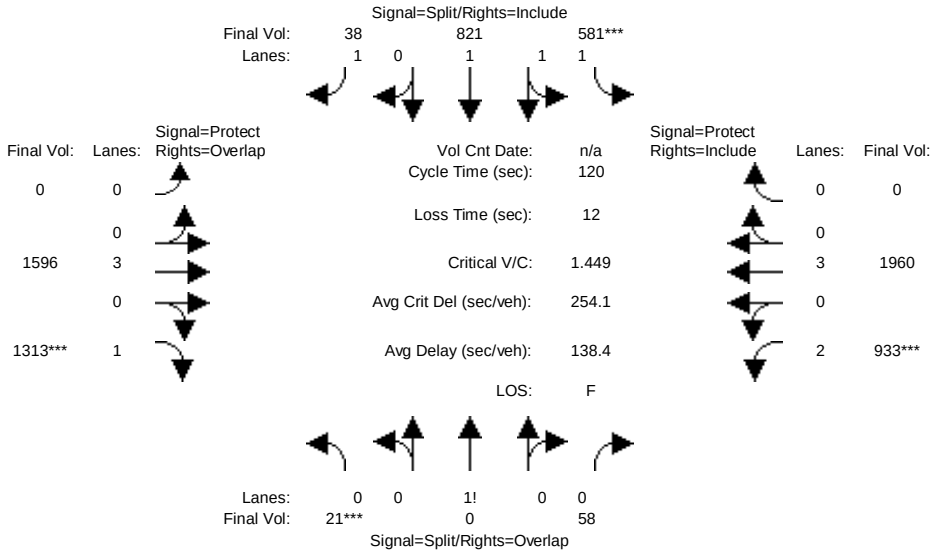
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #45: Stevens Creek Boulevard/Calvert Drive/I-280 Ramps



Street Name:	Stevens Creek Boulevard						Calvert Drive/I-280 Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	0	10	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	21	0	58	581	821	38	0	1451	1030	933	1719	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:	21	0	58	581	821	38	0	1451	1030	933	1719	0
Added Vol:	0	0	0	0	0	0	0	145	283	0	241	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	0	58	581	821	38	0	1596	1313	933	1960	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:	21	0	58	581	821	38	0	1596	1313	933	1960	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	0	58	581	821	38	0	1596	1313	933	1960	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:	21	0	58	581	821	38	0	1596	1313	933	1960	0
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	0.98	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.27	0.00	0.73	1.28	1.72	1.00	0.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:	465	0	1285	2257	3189	1750	0	5700	1750	3150	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.00	0.05	0.26	0.26	0.02	0.00	0.28	0.75	0.30	0.34	0.00
Crit Moves:	****			****					****	****		
Green Time:	10.0	0.0	33.8	20.7	20.7	20.7	0.0	53.5	63.5	23.8	77.3	0.0
Volume/Cap:	0.54	0.00	0.16	1.49	1.49	0.13	0.00	0.63	1.42	1.49	0.53	0.00
Uniform Del:	52.8	0.0	32.4	49.7	49.7	42.0	0.0	25.6	28.2	48.1	11.6	0.0
IncremntDel:	13.7	0.0	0.7	228.2	228	0.9	0.0	1.2	193.9	231.0	0.6	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	66.5	0.0	33.1	277.9	278	42.9	0.0	26.7	222.1	279.1	12.1	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:	66.5	0.0	33.1	277.9	278	42.9	0.0	26.7	222.1	279.1	12.1	0.0
LOS by Move:	E	A	C-	F	F	D	A	C	F	F	B	A
HCM2kAvgQ:	95	0	59	980	980	33	0	381	2578	1119	323	0

Note: Queue reported is the distance per lane in feet.

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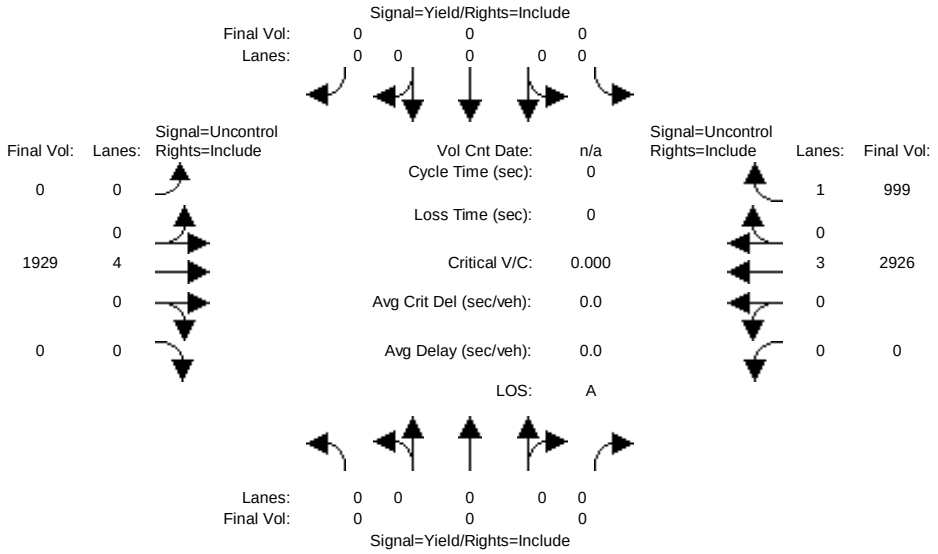
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #46: Stevens Creek Boulevard/I-280 Ramps East




```
Street Name:     Stevens Creek Boulevard              I-280 Ramps East
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0     0    0     0     0 1905     0     0 2855   999
Growth Adj:  1.00 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     0    0     0     0 1905     0     0 2855   999
Added Vol:      0    0     0     0    0     0     0   24     0     0   71     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     0     0    0     0     0 1929     0     0 2926   999
User Adj:    1.00 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     0    0     0     0 1929     0     0 2926   999
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0     0    0     0     0 1929     0     0 2926   999
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         *                *                *                *
Note: Queue reported is the distance per lane in feet.
                  Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #46 Stevens Creek Boulevard/I-280 Ramps East
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0	0 0	0	0 0 0	0 0	0	0 0 4	0 0	0	0 0 3	0 1	
Initial Vol:	0	0	0	0	0	0	0	1929	0	0	2926	999
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #46 Stevens Creek Boulevard/I-280 Ramps East

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0	0 0	0	0 0 0	0 0	0	0 0 4	0 0	0	0 0 3	0 1	
Initial Vol:	0	0	0	0	0	0	0	1929	0	0	2926	999

Major Street Volume: 5854
Minor Approach Volume: 0
Minor Approach Volume Threshold: -324 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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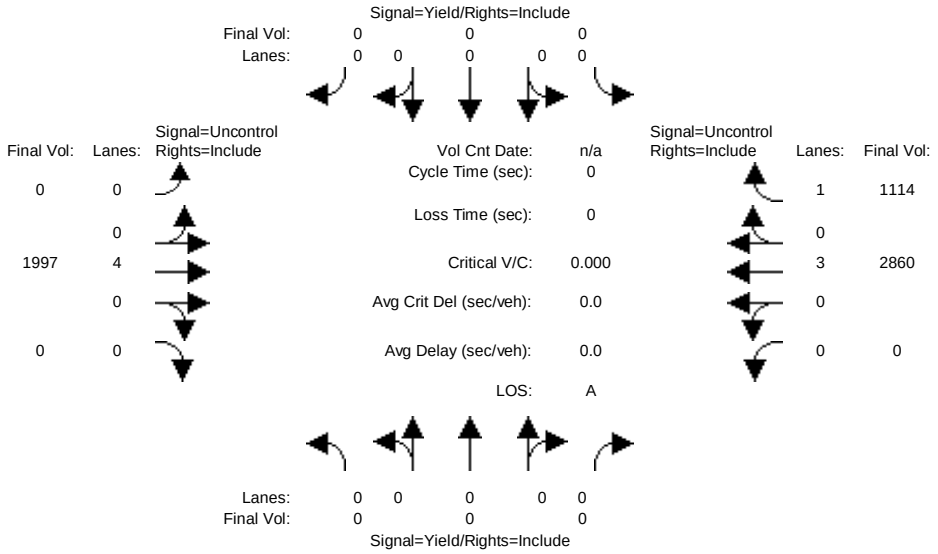
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #46: Stevens Creek Boulevard/I-280 Ramps East



Street Name:	Stevens Creek Boulevard						I-280 Ramps East					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	1852	0	0	2619	1114
Growth Adj:	1.00	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	0	0	0	0	1852	0	0	2619	1114
Added Vol:	0	0	0	0	0	0	0	145	0	0	241	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	0	0	1997	0	0	2860	1114
User Adj:	1.00	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	0	0	0	0	1997	0	0	2860	1114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	0	1997	0	0	2860	1114
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #46 Stevens Creek Boulevard/I-280 Ramps East

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0	0 0	0	0 0 0	0 0	0	0 0 4	0 0	0	0 0 3	0 1	
Initial Vol:	0	0	0	0	0	0	0	1997	0	0	2860	1114
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #46 Stevens Creek Boulevard/I-280 Ramps East

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0	0 0	0	0 0 0	0 0	0	0 0 4	0 0	0	0 0 3	0 1	
Initial Vol:	0	0	0	0	0	0	0	1997	0	0	2860	1114

Major Street Volume: 5971
Minor Approach Volume: 0
Minor Approach Volume Threshold: -331 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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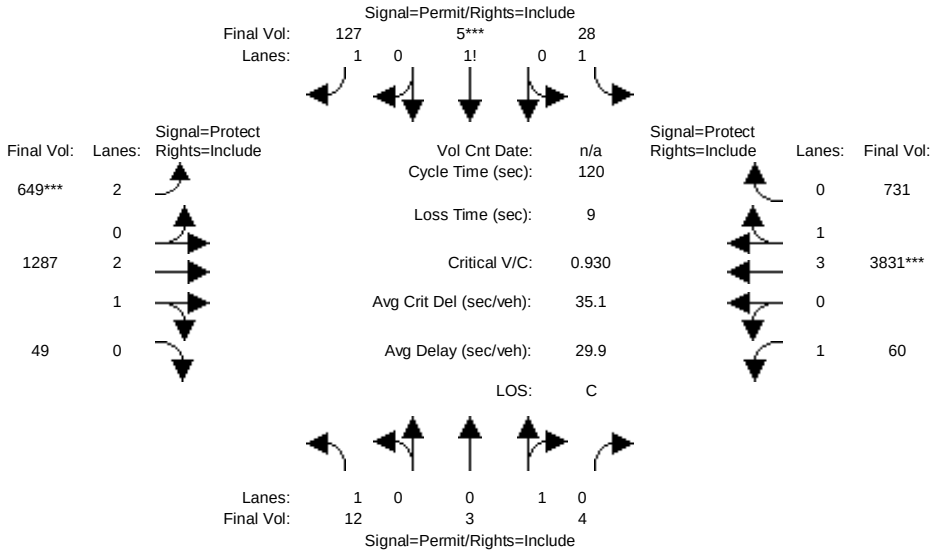
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #47: Stevens Creek Boulevard/Agilent Driveway



Street Name:	Stevens Creek Boulevard						Agilent Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	12	3	4	28	5	127	649	1263	49	60	3760	731
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	3	4	28	5	127	649	1263	49	60	3760	731
Added Vol:	0	0	0	0	0	0	0	24	0	0	71	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	3	4	28	5	127	649	1287	49	60	3831	731
User Adj:	1.00	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:	12	3	4	28	5	127	649	1287	49	60	3831	731
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	3	4	28	5	127	649	1287	49	60	3831	731
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	12	3	4	28	5	127	649	1287	49	60	3831	731
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.83	0.98	0.95	0.92	0.99	0.95
Lanes:	1.00	0.43	0.57	1.17	0.06	1.77	2.00	2.89	0.11	1.00	3.33	0.67
Final Sat.:	1750	771	1029	2054	109	3179	3150	5394	205	1750	6296	1201
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.00	0.01	0.05	0.04	0.21	0.24	0.24	0.03	0.61	0.61
Crit Moves:					****		****				****	
Green Time:	10.0	10.0	10.0	10.0	10.0	10.0	25.5	81.2	81.2	19.8	75.5	75.5
Volume/Cap:	0.08	0.05	0.05	0.16	0.55	0.48	0.97	0.35	0.35	0.21	0.97	0.97
Uniform Del:	50.8	50.6	50.6	51.1	52.9	52.5	46.8	8.3	8.3	43.3	21.1	21.1
IncremntDel:	1.1	0.6	0.6	0.4	7.4	4.9	27.7	0.3	0.3	1.6	7.5	7.5
InitQueuDel:	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:	51.9	51.2	51.2	51.5	60.3	57.4	74.5	8.5	8.5	44.9	28.7	28.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	51.9	51.2	51.2	51.5	60.3	57.4	74.5	8.5	8.5	44.9	28.7	28.7
LOS by Move:	D-	D-	D-	D-	E	E+	E	A	A	D	C	C
HCM2kAvgQ:	12	7	7	25	98	82	479	174	174	53	1160	1160

Note: Queue reported is the distance per lane in feet.

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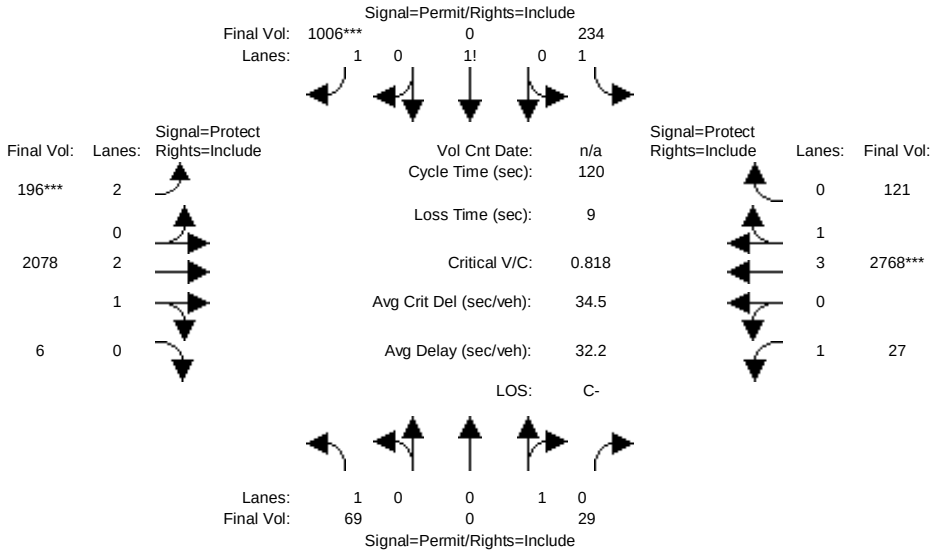
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #47: Stevens Creek Boulevard/Agilent Driveway



Street Name:	Stevens Creek Boulevard						Agilent Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	69	0	29	234	0	1006	196	1933	6	27	2527	121
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	69	0	29	234	0	1006	196	1933	6	27	2527	121
Added Vol:	0	0	0	0	0	0	0	145	0	0	241	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	69	0	29	234	0	1006	196	2078	6	27	2768	121
User Adj:	1.00	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:	69	0	29	234	0	1006	196	2078	6	27	2768	121
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	69	0	29	234	0	1006	196	2078	6	27	2768	121
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	69	0	29	234	0	1006	196	2078	6	27	2768	121
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.95	0.92	1.00	0.95	0.83	0.98	0.95	0.92	0.99	0.95
Lanes:	1.00	0.00	1.00	1.19	0.00	1.81	2.00	2.99	0.01	1.00	3.83	0.17
Final Sat.:	1750	0	1800	2088	0	3252	3150	5584	16	1750	7185	314
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.02	0.11	0.00	0.31	0.06	0.37	0.37	0.02	0.39	0.39
Crit Moves:						****	****				****	
Green Time:	45.4	0.0	45.4	45.4	0.0	45.4	9.1	56.7	56.7	8.9	56.5	56.5
Volume/Cap:	0.10	0.00	0.04	0.30	0.00	0.82	0.82	0.79	0.79	0.21	0.82	0.82
Uniform Del:	24.2	0.0	23.6	26.1	0.0	33.6	54.6	26.6	26.6	52.2	27.3	27.3
IncremntDel:	0.3	0.0	0.1	0.2	0.0	5.0	25.7	2.5	2.5	3.6	2.2	2.2
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	24.5	0.0	23.7	26.3	0.0	38.6	80.3	29.0	29.0	55.9	29.6	29.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.5	0.0	23.7	26.3	0.0	38.6	80.3	29.0	29.0	55.9	29.6	29.6
LOS by Move:	C	A	C	C	A	D+	F	C	C	E+	C	C
HCM2kAvgQ:	43	0	17	135	0	533	161	576	576	29	620	620

Note: Queue reported is the distance per lane in feet.

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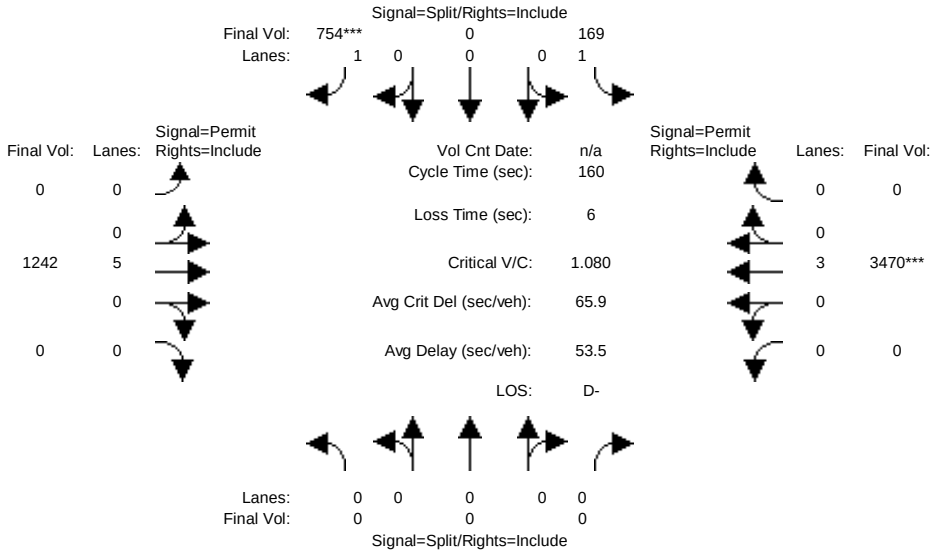
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #48: Stevens Creek Boulevard/Lawrence Expressway Ramps West



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps West					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	0	0	20	0	20	0	100	0	0	100	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	169	0	754	0	1218	0	0	3399	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	169	0	754	0	1218	0	0	3399	0
Added Vol:	0	0	0	0	0	0	0	24	0	0	71	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	169	0	754	0	1242	0	0	3470	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	0	0	169	0	754	0	1242	0	0	3470	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	169	0	754	0	1242	0	0	3470	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	169	0	754	0	1242	0	0	3470	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	5.00	0.00	0.00	3.00	0.00
Final Sat.:	0	0	0	1750	0	1750	0	9500	0	0	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.10	0.00	0.43	0.00	0.13	0.00	0.00	0.61	0.00
Crit Moves:						****					****	
Green Time:	0.0	0.0	0.0	54.0	0.0	54.0	0.0	100	0.0	0.0	100	0.0
Volume/Cap:	0.00	0.00	0.00	0.29	0.00	1.28	0.00	0.21	0.00	0.00	0.97	0.00
Uniform Del:	0.0	0.0	0.0	38.9	0.0	53.0	0.0	12.9	0.0	0.0	28.8	0.0
IncremntDel:	0.0	0.0	0.0	1.2	0.0	137.2	0.0	0.1	0.0	0.0	10.1	0.0
InitQueuDel:	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	40.1	0.0	190.2	0.0	13.0	0.0	0.0	38.9	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	40.1	0.0	190.2	0.0	13.0	0.0	0.0	38.9	0.0
LOS by Move:	A	A	A	D	A	F	A	B	A	A	D+	A
HCM2kAvgQ:	0	0	0	159	0	1562	0	126	0	0	1451	0

Note: Queue reported is the distance per lane in feet.

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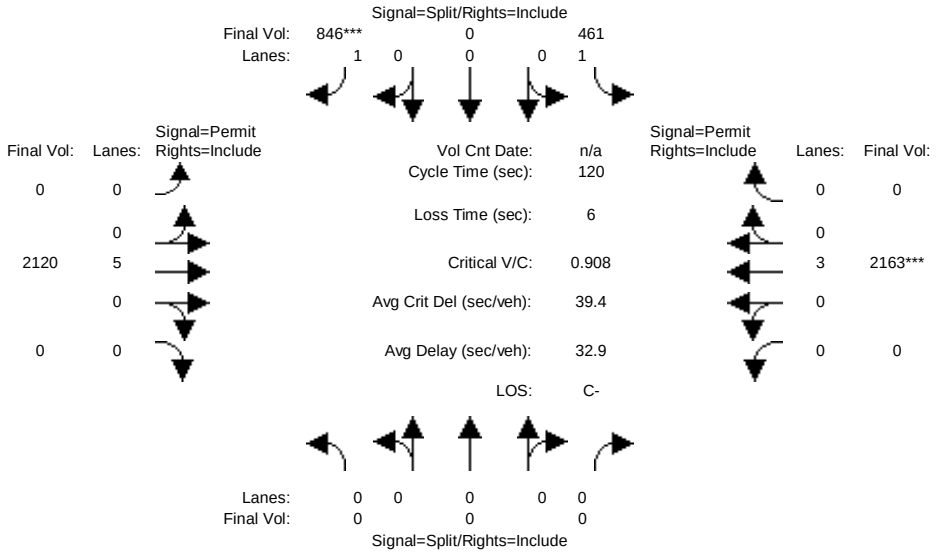
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #48: Stevens Creek Boulevard/Lawrence Expressway Ramps West



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps West					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	10	0	10	0	10	0	0	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	461	0	846	0	1975	0	0	1922	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	461	0	846	0	1975	0	0	1922	0
Added Vol:	0	0	0	0	0	0	0	145	0	0	241	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	461	0	846	0	2120	0	0	2163	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	0	0	461	0	846	0	2120	0	0	2163	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	461	0	846	0	2120	0	0	2163	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	461	0	846	0	2120	0	0	2163	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	5.00	0.00	0.00	3.00	0.00
Final Sat.:	0	0	0	1750	0	1750	0	9500	0	0	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.26	0.00	0.48	0.00	0.22	0.00	0.00	0.38	0.00
Crit Moves:						****					****	
Green Time:	0.0	0.0	0.0	63.9	0.0	63.9	0.0	50.1	0.0	0.0	50.1	0.0
Volume/Cap:	0.00	0.00	0.00	0.49	0.00	0.91	0.00	0.53	0.00	0.00	0.91	0.00
Uniform Del:	0.0	0.0	0.0	17.8	0.0	25.4	0.0	26.2	0.0	0.0	32.8	0.0
IncremntDel:	0.0	0.0	0.0	1.9	0.0	14.2	0.0	0.5	0.0	0.0	6.5	0.0
InitQueuDel:	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	19.7	0.0	39.7	0.0	26.7	0.0	0.0	39.3	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	19.7	0.0	39.7	0.0	26.7	0.0	0.0	39.3	0.0
LOS by Move:	A	A	A	B-	A	D	A	C	A	A	D	A
HCM2kAvgQ:	0	0	0	289	0	853	0	293	0	0	691	0

Note: Queue reported is the distance per lane in feet.

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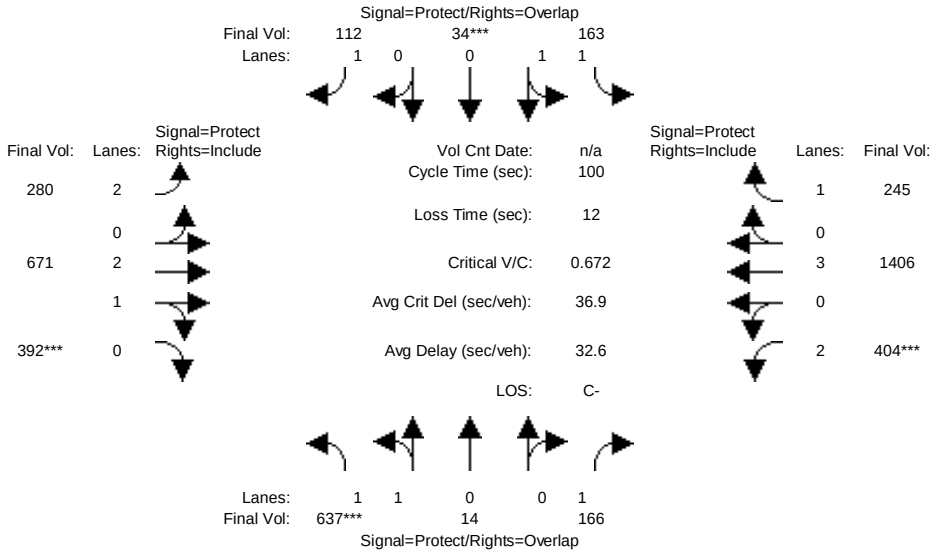
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #49: Lawrence Expressway Ramps/El Camino Real



Street Name:	Lawrence Expressway Ramp						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	637	14	166	163	34	112	280	671	392	404	1406	245
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	637	14	166	163	34	112	280	671	392	404	1406	245
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:	637	14	166	163	34	112	280	671	392	404	1406	245
User Adj:	1.00	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:	637	14	166	163	34	112	280	671	392	404	1406	245
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	637	14	166	163	34	112	280	671	392	404	1406	245
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	637	14	166	163	34	112	280	671	392	404	1406	245
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.93	0.95	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	1.96	0.04	1.00	1.66	0.34	1.00	2.00	2.00	1.00	2.00	3.00	1.00
Final Sat.:	3474	76	1750	2937	613	1750	3150	3800	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.18	0.18	0.09	0.06	0.06	0.06	0.09	0.18	0.22	0.13	0.25	0.14
Crit Moves:	****				****				****	****		
Green Time:	26.7	26.6	45.2	10.1	10.0	23.6	13.6	32.6	32.6	18.7	37.7	37.7
Volume/Cap:	0.69	0.69	0.21	0.55	0.55	0.27	0.65	0.54	0.69	0.69	0.65	0.37
Uniform Del:	32.9	33.0	16.6	42.7	42.9	31.2	41.0	27.6	29.3	37.9	25.8	22.6
IncremntDel:	4.0	4.1	0.6	5.9	6.1	1.6	7.6	1.1	2.5	6.4	1.6	1.6
InitQueuDel:	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:	36.9	37.2	17.2	48.6	49.0	32.8	48.6	28.6	31.8	44.3	27.3	24.2
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:	36.9	37.2	17.2	48.6	49.0	32.8	48.6	28.6	31.8	44.3	27.3	24.2
LOS by Move:	D+	D+	B	D	D	C-	D	C	C	D	C	C
HCM2kAvgQ:	267	268	82	97	98	78	152	219	307	206	314	148

Note: Queue reported is the distance per lane in feet.

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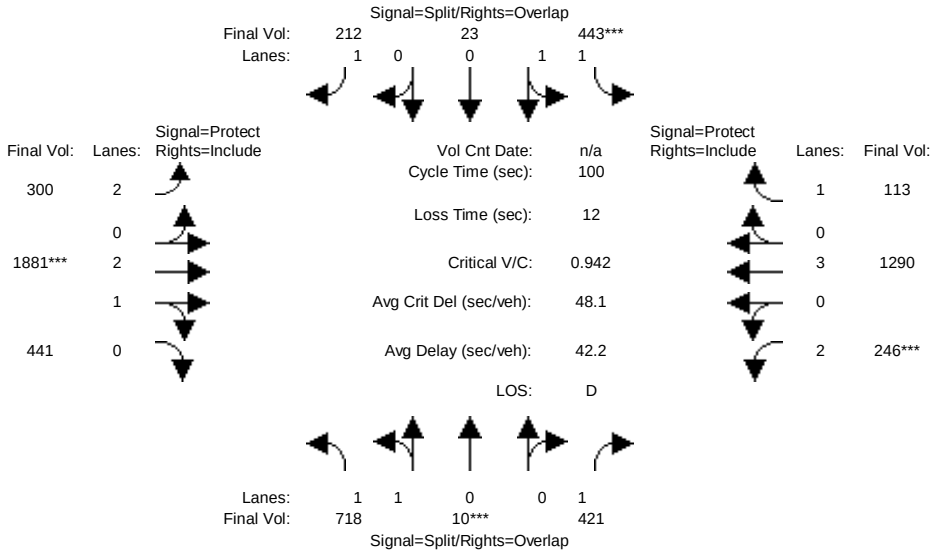
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #49: Lawrence Expressway Ramps/El Camino Real



Street Name:	Lawrence Expressway Ramp						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	718	10	421	443	23	212	300	1881	441	246	1290	113
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	718	10	421	443	23	212	300	1881	441	246	1290	113
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:	718	10	421	443	23	212	300	1881	441	246	1290	113
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	718	10	421	443	23	212	300	1881	441	246	1290	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	718	10	421	443	23	212	300	1881	441	246	1290	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	718	10	421	443	23	212	300	1881	441	246	1290	113
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.93	0.95	0.92	0.83	0.99	0.95	0.83	1.00	0.92
Lanes:	1.97	0.03	1.00	1.90	0.10	1.00	2.00	2.41	0.59	2.00	3.00	1.00
Final Sat.:	3501	49	1750	3375	175	1750	3150	4535	1063	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.21	0.21	0.24	0.13	0.13	0.12	0.10	0.41	0.41	0.08	0.23	0.06
Crit Moves:		****		****				****		****		
Green Time:	21.8	21.8	30.1	13.9	13.9	29.4	15.5	44.0	44.0	8.3	36.8	36.8
Volume/Cap:	0.94	0.94	0.80	0.94	0.94	0.41	0.61	0.94	0.94	0.94	0.61	0.18
Uniform Del:	38.5	38.5	32.2	42.6	42.6	28.3	39.5	26.8	26.8	45.6	25.8	21.3
IncremntDel:	21.0	21.0	12.1	28.4	28.4	2.4	5.7	8.9	8.9	42.6	1.4	0.6
InitQueuDel:	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:	59.5	59.5	44.3	71.0	71.0	30.8	45.2	35.7	35.7	88.2	27.2	21.9
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:	59.5	59.5	44.3	71.0	71.0	30.8	45.2	35.7	35.7	88.2	27.2	21.9
LOS by Move:	E+	E+	D	E	E	C	D	D+	D+	F	C	C+
HCM2kAvgQ:	407	407	374	289	289	146	154	707	707	197	282	63

Note: Queue reported is the distance per lane in feet.

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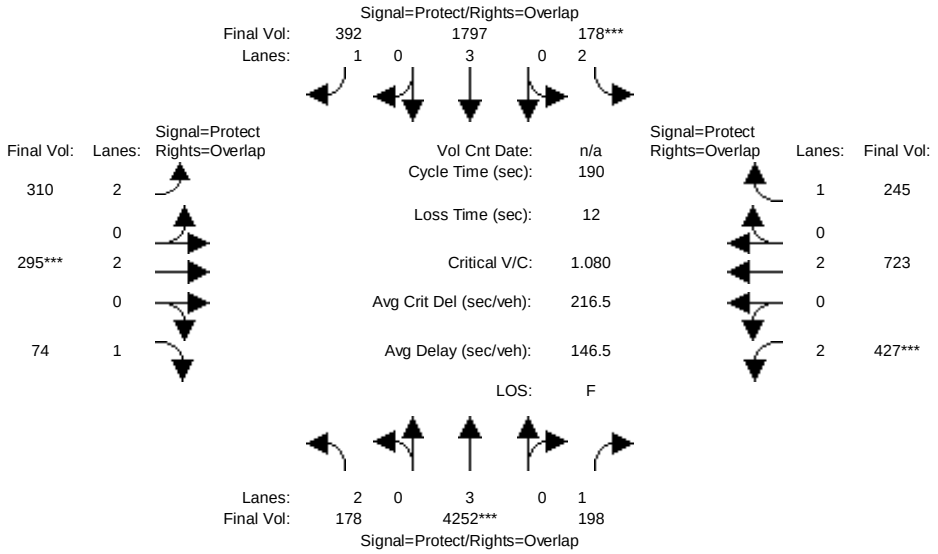
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #50: Lawrence Expressway/Homestead Road



Street Name:	Lawrence Expressway						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	22	107	107	17	102	102	23	43	43	23	43	43
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	162	4887	198	178	2065	380	303	283	74	427	703	245
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	162	4887	198	178	2065	380	303	283	74	427	703	245
Added Vol:	16	0	0	0	0	12	7	12	0	0	20	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	178	4887	198	178	2065	392	310	295	74	427	723	245
User Adj:	1.00	0.87	1.00	1.00	0.87	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:	178	4252	198	178	1797	392	310	295	74	427	723	245
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	178	4252	198	178	1797	392	310	295	74	427	723	245
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	178	4252	198	178	1797	392	310	295	74	427	723	245
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.75	0.11	0.06	0.32	0.22	0.10	0.08	0.04	0.14	0.19	0.14
Crit Moves:		****		****				****		****		
Green Time:	20.7	101	122.3	16.0	95.9	117.6	21.6	40.4	61.1	21.6	40.4	56.4
Volume/Cap:	0.52	1.41	0.18	0.67	0.62	0.36	0.86	0.36	0.13	1.19	0.89	0.47
Uniform Del:	85.0	47.5	14.5	89.8	36.1	18.9	88.0	67.8	48.5	89.5	77.3	58.0
IncremntDel:	5.5	186	0.3	12.8	1.0	0.9	23.2	1.3	0.5	110.1	14.4	3.0
InitQueuDel:	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:	90.5	233	14.8	102.6	37.2	19.9	111.1	69.1	49.0	199.6	91.7	61.1
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:	90.5	233	14.8	102.6	37.2	19.9	111.1	69.1	49.0	199.6	91.7	61.1
LOS by Move:	F	F	B	F	D+	B-	F	E	D	F	F	E
HCM2kAvgQ:	167	3353	127	187	647	307	341	191	84	581	607	327

Note: Queue reported is the distance per lane in feet.

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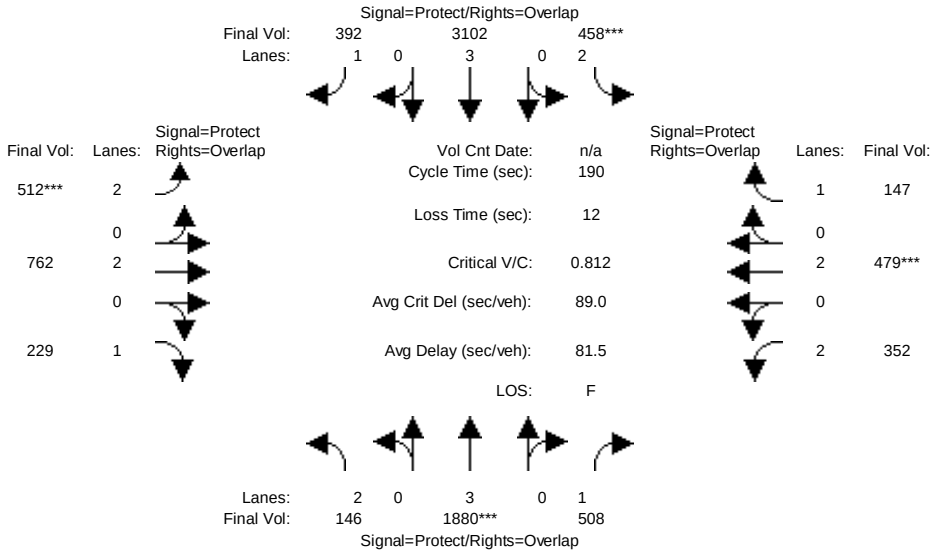
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #50: Lawrence Expressway/Homestead Road



Street Name:	Lawrence Expressway						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	17	95	95	27	105	105	27	38	38	30	41	41
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	92	2380	508	458	3927	352	468	689	229	352	412	147
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	92	2380	508	458	3927	352	468	689	229	352	412	147
Added Vol:	54	0	0	0	0	40	44	73	0	0	67	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	146	2380	508	458	3927	392	512	762	229	352	479	147
User Adj:	1.00	0.79	1.00	1.00	0.79	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:	146	1880	508	458	3102	392	512	762	229	352	479	147
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	146	1880	508	458	3102	392	512	762	229	352	479	147
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	146	1880	508	458	3102	392	512	762	229	352	479	147
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.33	0.29	0.15	0.54	0.22	0.16	0.20	0.13	0.11	0.13	0.08
Crit Moves:		****		****			****				****	
Green Time:	16.0	89.4	117.6	25.4	98.8	124.2	25.4	35.7	51.7	28.2	38.6	64.0
Volume/Cap:	0.55	0.70	0.47	1.09	1.05	0.34	1.22	1.07	0.48	0.75	0.62	0.25
Uniform Del:	88.8	42.3	20.7	87.5	48.5	15.6	87.5	82.0	61.5	82.4	73.4	48.5
IncremntDel:	8.0	1.6	1.5	69.6	30.6	0.8	117.2	52.6	3.4	10.7	3.7	1.0
InitQueuDel:	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:	96.8	43.8	22.1	157.1	79.1	16.4	204.7	135	65.0	93.1	77.2	49.5
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:	96.8	43.8	22.1	157.1	79.1	16.4	204.7	135	65.0	93.1	77.2	49.5
LOS by Move:	F	D	C+	F	E-	B	F	F	E	F	E-	D
HCM2kAvgQ:	146	750	437	573	1817	280	696	748	315	345	344	170

Note: Queue reported is the distance per lane in feet.

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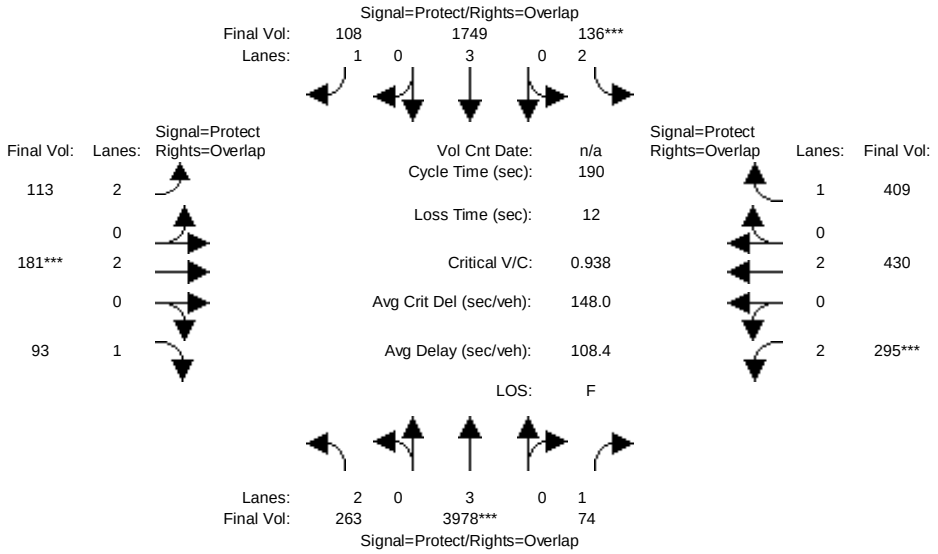
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #51: Lawrence Expressway/Pruneridge Avenue



Street Name:	Lawrence Expressway						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	19	113	113	16	111	111	19	37	37	24	42	42
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	263	4556	74	136	2010	108	113	176	93	295	422	409
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	263	4556	74	136	2010	108	113	176	93	295	422	409
Added Vol:	0	16	0	0	0	0	0	5	0	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	263	4572	74	136	2010	108	113	181	93	295	430	409
User Adj:	1.00	0.87	1.00	1.00	0.87	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:	263	3978	74	136	1749	108	113	181	93	295	430	409
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	263	3978	74	136	1749	108	113	181	93	295	430	409
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	263	3978	74	136	1749	108	113	181	93	295	430	409
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.70	0.04	0.04	0.31	0.06	0.04	0.05	0.05	0.09	0.11	0.23
Crit Moves:		****		****				****		****		
Green Time:	17.8	107	129.2	15.0	104	121.7	17.8	34.6	52.4	22.5	39.3	54.3
Volume/Cap:	0.89	1.24	0.06	0.55	0.56	0.10	0.38	0.26	0.19	0.79	0.55	0.82
Uniform Del:	91.0	44.5	10.9	90.0	30.1	14.0	86.5	71.3	56.2	87.1	72.0	67.6
IncremntDel:	30.9	112	0.1	8.4	0.7	0.2	3.7	0.9	0.9	15.8	2.7	13.8
InitQueuDel:	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:	121.8	156	11.0	98.4	30.8	14.2	90.2	72.2	57.1	102.8	74.7	81.4
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:	121.8	156	11.0	98.4	30.8	14.2	90.2	72.2	57.1	102.8	74.7	81.4
LOS by Move:	F	F	B+	F	C	B	F	E	E+	F	E	F
HCM2kAvgQ:	306	2791	40	138	568	66	105	118	115	310	300	671

Note: Queue reported is the distance per lane in feet.

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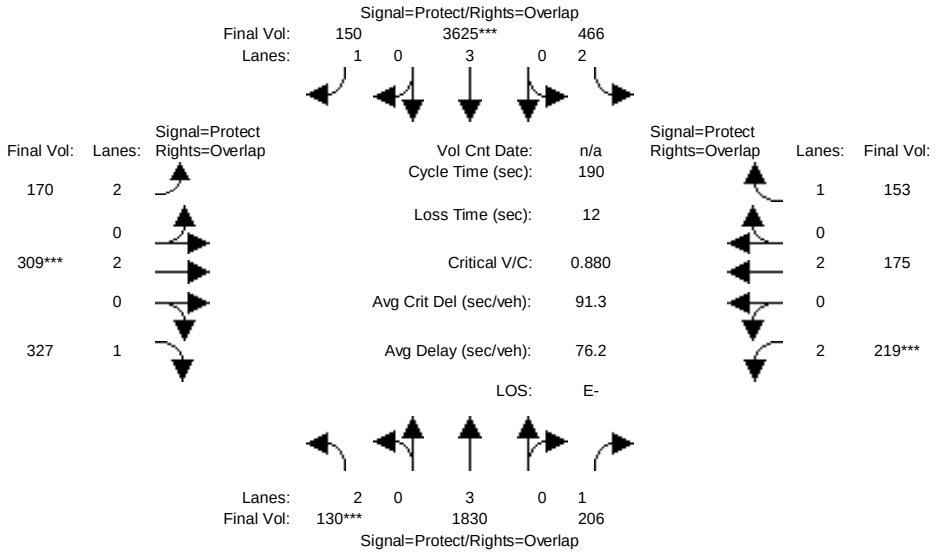
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #51: Lawrence Expressway/Pruneridge Avenue



Street Name:	Lawrence Expressway						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	18	107	107	28	117	117	17	33	33	22	38	38
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	130	2322	206	466	4421	150	170	280	327	219	148	153
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	130	2322	206	466	4421	150	170	280	327	219	148	153
Added Vol:	0	54	0	0	0	0	0	29	0	0	27	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	130	2376	206	466	4421	150	170	309	327	219	175	153
User Adj:	1.00	0.77	1.00	1.00	0.82	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:	130	1830	206	466	3625	150	170	309	327	219	175	153
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	130	1830	206	466	3625	150	170	309	327	219	175	153
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	130	1830	206	466	3625	150	170	309	327	219	175	153
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.32	0.12	0.15	0.64	0.09	0.05	0.08	0.19	0.07	0.05	0.09
Crit Moves:	****				****			****			****	
Green Time:	16.9	101	121.3	26.3	110	126.0	16.0	31.0	48.0	20.7	35.7	62.1
Volume/Cap:	0.46	0.61	0.18	1.07	1.10	0.13	0.64	0.50	0.74	0.64	0.24	0.27
Uniform Del:	87.4	32.9	15.0	87.0	42.5	12.5	89.5	77.0	69.4	86.2	69.8	50.2
IncremntDel:	5.4	0.9	0.4	62.1	49.6	0.2	11.3	2.8	10.6	8.8	0.8	1.1
InitQueuDel:	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:	92.8	33.8	15.3	149.1	92.1	12.7	100.9	79.8	80.0	95.0	70.6	51.3
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:	92.8	33.8	15.3	149.1	92.1	12.7	100.9	79.8	80.0	95.0	70.6	51.3
LOS by Move:	F	C-	B	F	F	B	F	E-	F	F	E	D-
HCM2kAvgQ:	125	630	134	573	2214	88	176	221	519	215	112	181

Note: Queue reported is the distance per lane in feet.

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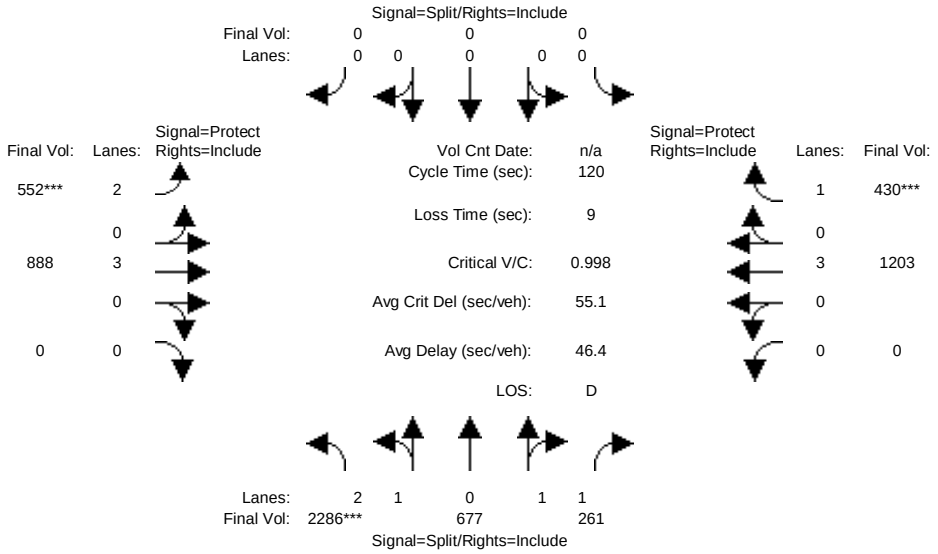
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #52: Stevens Creek Boulevard/Lawrence Expressway Ramps East



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps East					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	0	0	0	7	10	0	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	2255	677	261	0	0	0	552	864	0	0	1164	430
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2255	677	261	0	0	0	552	864	0	0	1164	430
Added Vol:	31	0	0	0	0	0	0	24	0	0	39	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2286	677	261	0	0	0	552	888	0	0	1203	430
User Adj:	1.00	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:	2286	677	261	0	0	0	552	888	0	0	1203	430
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2286	677	261	0	0	0	552	888	0	0	1203	430
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	2286	677	261	0	0	0	552	888	0	0	1203	430
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.80	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	3.00	1.00	1.00	0.00	0.00	0.00	2.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	4551	1900	1750	0	0	0	3150	5700	0	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.50	0.36	0.15	0.00	0.00	0.00	0.18	0.16	0.00	0.00	0.21	0.25
Crit Moves:	****						****					****
Green Time:	60.4	60.4	60.4	0.0	0.0	0.0	21.1	50.6	0.0	0.0	29.5	29.5
Volume/Cap:	1.00	0.71	0.30	0.00	0.00	0.00	1.00	0.37	0.00	0.00	0.86	1.00
Uniform Del:	29.7	23.0	17.4	0.0	0.0	0.0	49.4	23.8	0.0	0.0	43.2	45.2
IncremntDel:	15.4	1.0	0.1	0.0	0.0	0.0	37.8	0.4	0.0	0.0	7.0	42.9
InitQueuDel:	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	1.00	1.00	0.00	0.00	1.00	1.00
Delay/Veh:	45.2	24.0	17.5	0.0	0.0	0.0	87.3	24.2	0.0	0.0	50.2	88.1
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:	45.2	24.0	17.5	0.0	0.0	0.0	87.3	24.2	0.0	0.0	50.2	88.1
LOS by Move:	D	C	B	A	A	A	F	C	A	A	D	F
HCM2kAvgQ:	1064	492	148	0	0	0	405	186	0	0	420	578

Note: Queue reported is the distance per lane in feet.

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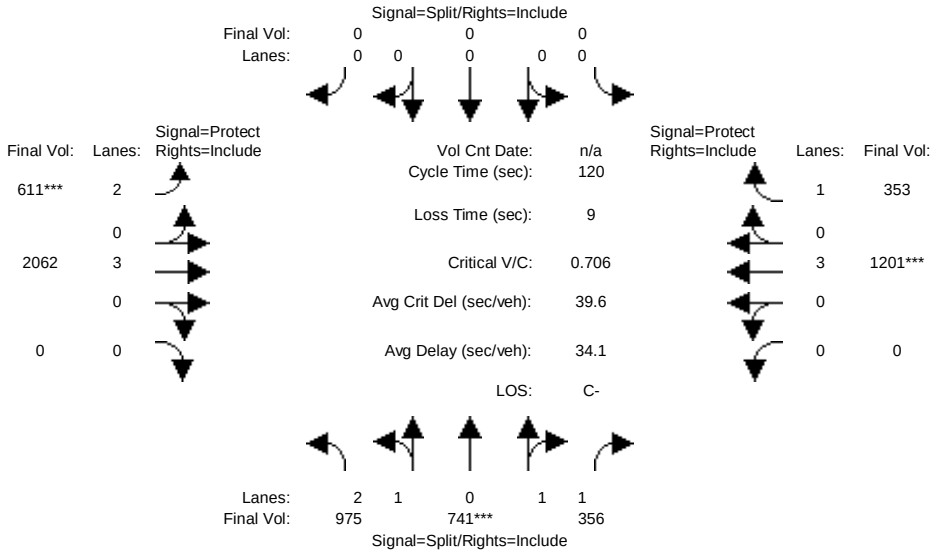
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #52: Stevens Creek Boulevard/Lawrence Expressway Ramps East



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps East					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	50	50	50	0	0	0	30	70	0	0	40	40
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	868	741	356	0	0	0	611	1917	0	0	1067	353
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	868	741	356	0	0	0	611	1917	0	0	1067	353
Added Vol:	107	0	0	0	0	0	0	145	0	0	134	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	975	741	356	0	0	0	611	2062	0	0	1201	353
User Adj:	1.00	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:	975	741	356	0	0	0	611	2062	0	0	1201	353
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	975	741	356	0	0	0	611	2062	0	0	1201	353
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	975	741	356	0	0	0	611	2062	0	0	1201	353
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.84	0.98	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.42	1.58	1.00	0.00	0.00	0.00	2.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	3871	2942	1750	0	0	0	3150	5700	0	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.25	0.25	0.20	0.00	0.00	0.00	0.19	0.36	0.00	0.00	0.21	0.20
Crit Moves:		****					****				****	
Green Time:	46.5	46.5	46.5	0.0	0.0	0.0	27.9	65.1	0.0	0.0	37.2	37.2
Volume/Cap:	0.65	0.65	0.52	0.00	0.00	0.00	0.83	0.67	0.00	0.00	0.68	0.65
Uniform Del:	32.3	32.3	30.4	0.0	0.0	0.0	47.1	21.1	0.0	0.0	38.9	38.5
IncremntDel:	1.0	1.0	0.5	0.0	0.0	0.0	10.8	1.2	0.0	0.0	2.1	5.9
InitQueuDel:	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	1.00	1.00	0.00	0.00	1.00	1.00
Delay/Veh:	33.4	33.4	30.9	0.0	0.0	0.0	57.9	22.3	0.0	0.0	41.0	44.4
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:	33.4	33.4	30.9	0.0	0.0	0.0	57.9	22.3	0.0	0.0	41.0	44.4
LOS by Move:	C-	C-	C	A	A	A	E+	C+	A	A	D	D
HCM2kAvgQ:	395	395	293	0	0	0	381	500	0	0	362	340

Note: Queue reported is the distance per lane in feet.

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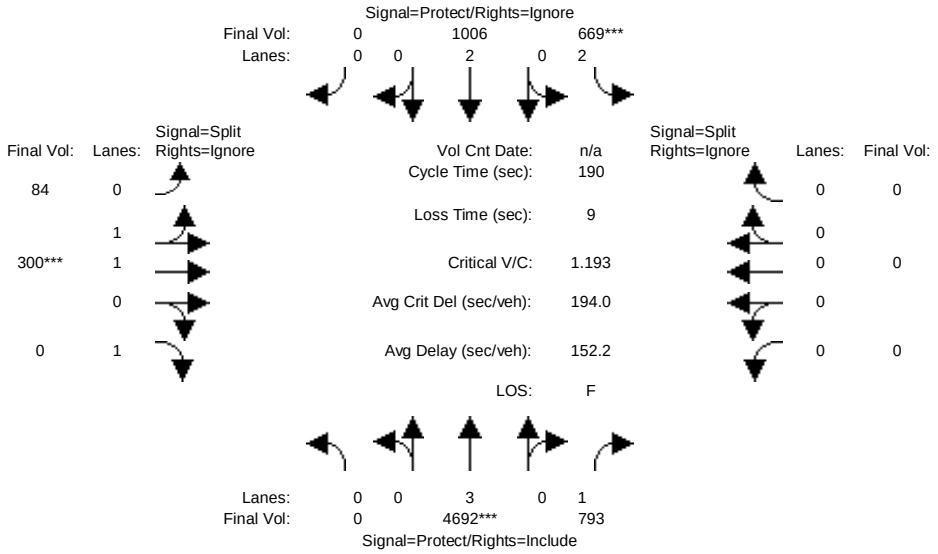
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #53: Lawrence Expressway/I-280 Ramps South



Street Name:	Lawrence Expressway						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	102	120	36	156	0	34	34	34	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	4645	793	669	1006	0	84	282	272	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	4645	793	669	1006	0	84	282	272	0	0	0
Added Vol:	0	47	0	0	0	0	0	18	29	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	4692	793	669	1006	0	84	300	301	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	4692	793	669	1006	0	84	300	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	4692	793	669	1006	0	84	300	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	4692	793	669	1006	0	84	300	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.95	0.98	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	0.45	1.55	1.00	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	809	2890	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.82	0.45	0.21	0.26	0.00	0.10	0.10	0.00	0.00	0.00	0.00
Crit Moves:		****		****				****				
Green Time:	0.0	115	114.6	34.4	149	0.0	32.5	32.5	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	1.37	0.75	1.17	0.34	0.00	0.61	0.61	0.00	0.00	0.00	0.00
Uniform Del:	0.0	39.5	28.7	81.5	6.3	0.0	76.3	76.3	0.0	0.0	0.0	0.0
IncremntDel:	0.0	166	4.9	95.7	0.3	0.0	4.3	4.3	0.0	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	206	33.6	177.2	6.6	0.0	80.6	80.6	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	206	33.6	177.2	6.6	0.0	80.6	80.6	0.0	0.0	0.0	0.0
LOS by Move:	A	F	C-	F	A	A	F	F	A	A	A	A
HCM2kAvgQ:	0	3556	934	852	217	0	288	288	0	0	0	0

Note: Queue reported is the distance per lane in feet.

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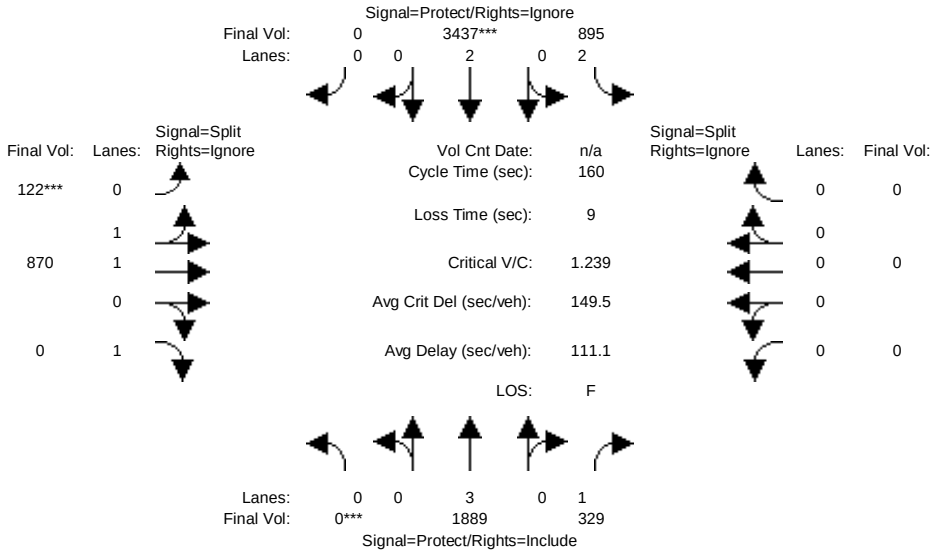
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #53: Lawrence Expressway/I-280 Ramps South



Street Name:	Lawrence Expressway						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	43	43	50	119	0	41	41	41	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1728	329	895	3437	0	122	761	643	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1728	329	895	3437	0	122	761	643	0	0	0
Added Vol:	0	161	0	0	0	0	0	109	174	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1889	329	895	3437	0	122	870	817	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	1889	329	895	3437	0	122	870	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1889	329	895	3437	0	122	870	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	1889	329	895	3437	0	122	870	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.95	0.98	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	0.25	1.75	1.00	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	455	3245	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.33	0.19	0.28	0.90	0.00	0.27	0.27	0.00	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green Time:	0.0	59.5	59.5	53.1	113	0.0	38.8	38.8	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.89	0.51	0.86	1.28	0.00	1.11	1.11	0.00	0.00	0.00	0.00
Uniform Del:	0.0	49.8	41.0	52.7	25.0	0.0	64.0	64.0	0.0	0.0	0.0	0.0
IncremntDel:	0.0	6.2	2.8	9.0	131	0.0	63.2	63.2	0.0	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	56.0	43.8	61.6	156	0.0	127.2	127	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	56.0	43.8	61.6	156	0.0	127.2	127	0.0	0.0	0.0	0.0
LOS by Move:	A	E+	D	E	F	A	F	F	A	A	A	A
HCM2kAvgQ:	0	826	349	699	3310	0	887	887	0	0	0	0

Note: Queue reported is the distance per lane in feet.

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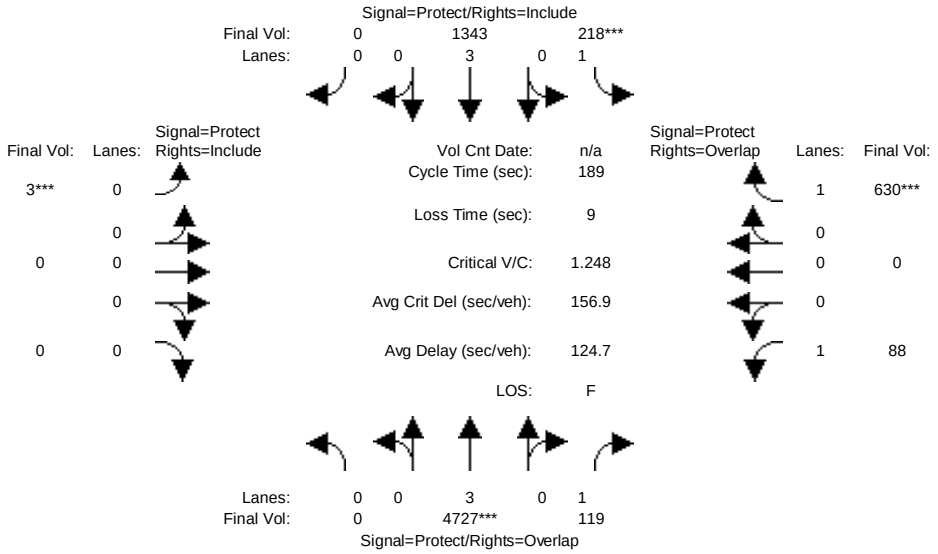
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #54: Lawrence Expressway/Mitty Way



Street Name:	Lawrence Expressway						Mitty Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	129	129	32	161	0	0	0	0	27	0	27
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	4680	119	218	1314	0	3	0	0	88	0	630
Growth Adj:	1.00	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	4680	119	218	1314	0	3	0	0	88	0	630
Added Vol:	0	47	0	0	29	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	4727	119	218	1343	0	3	0	0	88	0	630
User Adj:	1.00	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	4727	119	218	1343	0	3	0	0	88	0	630
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	4727	119	218	1343	0	3	0	0	88	0	630
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	4727	119	218	1343	0	3	0	0	88	0	630
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	3.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5700	0	1750	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.83	0.07	0.12	0.24	0.00	0.00	0.00	0.00	0.05	0.00	0.36
Crit Moves:		****		****			****					****
Green Time:	0.0	124	149.7	30.7	154	0.0	0.2	0.0	0.0	25.9	0.0	56.4
Volume/Cap:	0.00	1.27	0.09	0.77	0.29	0.00	1.45	0.00	0.00	0.37	0.00	1.21
Uniform Del:	0.0	34.0	4.6	78.9	4.3	0.0	98.4	0.0	0.0	77.2	0.0	69.1
IncremntDel:	0.0	122	0.1	17.8	0.2	0.0	864.5	0.0	0.0	4.3	0.0	110.1
InitQueuDel:	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	1.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	156	4.7	96.7	4.5	0.0	962.9	0.0	0.0	81.5	0.0	179.2
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	156	4.7	96.7	4.5	0.0	962.9	0.0	0.0	81.5	0.0	179.2
LOS by Move:	A	F	A	F	A	A	F	A	A	F	A	F
HCM2kAvgQ:	0	3299	42	374	157	0	22	0	0	133	0	1414

Note: Queue reported is the distance per lane in feet.

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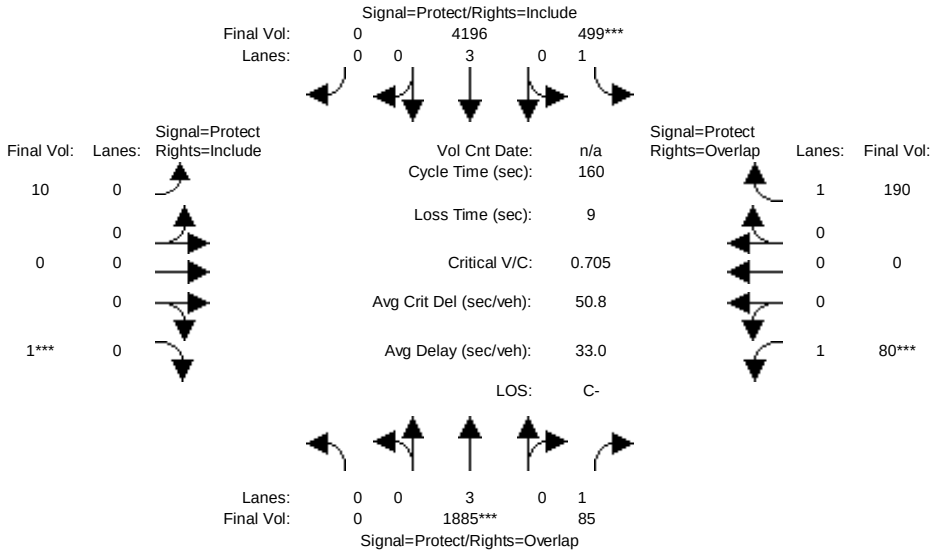
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #54: Lawrence Expressway/Mitty Way



Street Name:	Lawrence Expressway						Mitty Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	82	82	22	131	0	0	0	0	29	0	29
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1724	85	499	4022	0	10	0	1	80	0	190
Growth Adj:	1.00	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	1724	85	499	4022	0	10	0	1	80	0	190
Added Vol:	0	161	0	0	174	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1885	85	499	4196	0	10	0	1	80	0	190
User Adj:	1.00	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	1885	85	499	4196	0	10	0	1	80	0	190
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1885	85	499	4196	0	10	0	1	80	0	190
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1885	85	499	4196	0	10	0	1	80	0	190
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	3.00	0.00	0.91	0.00	0.09	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5700	0	1591	0	159	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.33	0.05	0.29	0.74	0.00	0.01	0.00	0.01	0.05	0.00	0.11
Crit Moves:		****		****					****	****		
Green Time:	0.0	77.6	105.1	45.4	123	0.0	28.5	0.0	1.0	27.5	0.0	72.8
Volume/Cap:	0.00	0.68	0.07	1.01	0.96	0.00	0.04	0.00	1.01	0.27	0.00	0.24
Uniform Del:	0.0	33.5	10.5	60.5	17.1	0.0	57.5	0.0	84.0	60.8	0.0	28.1
IncremntDel:	0.0	1.4	0.1	41.7	6.8	0.0	0.2	0.0	273.9	2.2	0.0	0.7
InitQueuDel:	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	1.00	0.00	1.00	1.00	0.00	1.00
Delay/Veh:	0.0	34.8	10.6	102.2	23.9	0.0	57.7	0.0	357.9	62.9	0.0	28.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	34.8	10.6	102.2	23.9	0.0	57.7	0.0	357.9	62.9	0.0	28.8
LOS by Move:	A	C-	B+	F	C	A	E+	A	F	E	A	C
HCM2kAvgQ:	0	618	41	846	1685	0	13	0	45	97	0	156

Note: Queue reported is the distance per lane in feet.

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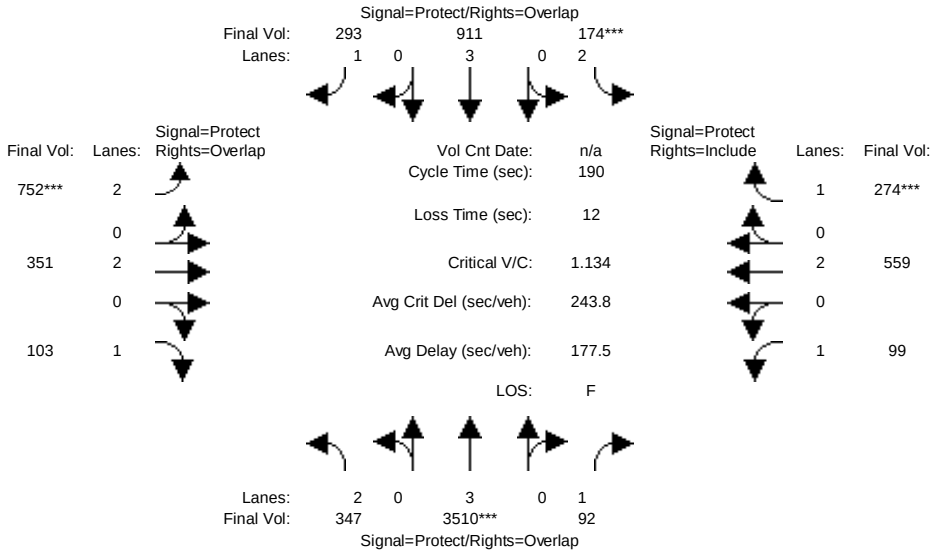
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #55: Lawrence Expressway/Bollinger Road



Street Name:	Lawrence Expressway						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	22	82	82	18	78	78	52	71	71	19	38	38
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	347	3471	92	169	887	293	752	351	103	99	559	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:	347	3471	92	169	887	293	752	351	103	99	559	266
Added Vol:	0	39	0	5	24	0	0	0	0	0	0	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	347	3510	92	174	911	293	752	351	103	99	559	274
User Adj:	1.00	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:	347	3510	92	174	911	293	752	351	103	99	559	274
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	347	3510	92	174	911	293	752	351	103	99	559	274
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	347	3510	92	174	911	293	752	351	103	99	559	274
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.11	0.62	0.05	0.06	0.16	0.17	0.24	0.09	0.06	0.06	0.15	0.16
Crit Moves:		****		****			****					****
Green Time:	20.7	77.1	95.0	16.9	73.4	122.3	48.9	66.8	87.5	17.9	35.7	35.7
Volume/Cap:	1.01	1.52	0.11	0.62	0.41	0.26	0.93	0.26	0.13	0.60	0.78	0.83
Uniform Del:	90.0	60.0	26.7	88.7	45.3	15.4	73.2	46.8	31.2	87.9	78.1	78.9
IncremntDel:	51.5	235	0.2	9.9	0.6	0.6	18.2	0.5	0.3	15.2	8.3	21.2
InitQueuDel:	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:	141.5	295	26.9	98.6	45.9	16.0	91.4	47.3	31.6	103.1	86.4	100.1
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:	141.5	295	26.9	98.6	45.9	16.0	91.4	47.3	31.6	103.1	86.4	100.1
LOS by Move:	F	F	C	F	D	B	F	D	C	F	F	F
HCM2kAvgQ:	425	2957	77	177	329	200	761	185	94	178	443	487

Note: Queue reported is the distance per lane in feet.

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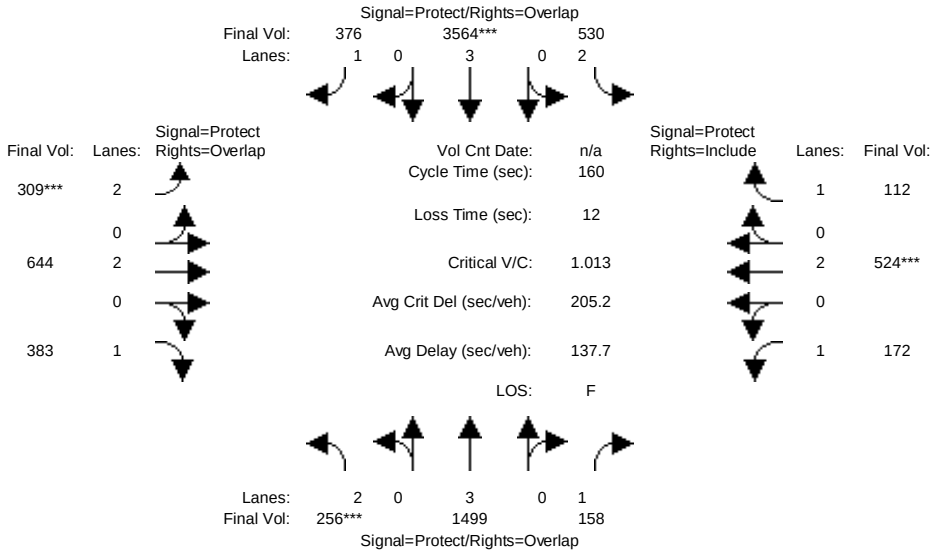
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #55: Lawrence Expressway/Bollinger Road



Street Name:	Lawrence Expressway						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	21	67	67	28	74	74	25	42	42	23	39	39
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	256	1365	158	501	3419	376	309	644	383	172	524	85
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	256	1365	158	501	3419	376	309	644	383	172	524	85
Added Vol:	0	134	0	29	145	0	0	0	0	0	0	27
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	256	1499	158	530	3564	376	309	644	383	172	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:	256	1499	158	530	3564	376	309	644	383	172	524	112
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	256	1499	158	530	3564	376	309	644	383	172	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
FinalVolume:	256	1499	158	530	3564	376	309	644	383	172	524	112
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.26	0.09	0.17	0.63	0.21	0.10	0.17	0.22	0.10	0.14	0.06
Crit Moves:	****				****		****				****	
Green Time:	19.5	62.4	83.4	26.9	69.8	93.0	23.3	38.5	58.0	21.1	36.3	36.3
Volume/Cap:	0.67	0.67	0.17	1.00	1.43	0.37	0.67	0.70	0.60	0.75	0.61	0.28
Uniform Del:	72.1	43.5	21.7	71.5	48.5	19.2	69.6	59.7	44.7	71.9	59.6	54.9
IncremntDel:	8.8	1.7	0.4	38.9	198	1.0	7.8	4.5	4.2	19.6	3.2	1.8
InitQueuDel:	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:	80.9	45.1	22.1	110.4	246	20.2	77.4	64.3	49.0	91.5	62.8	56.7
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:	80.9	45.1	22.1	110.4	246	20.2	77.4	64.3	49.0	91.5	62.8	56.7
LOS by Move:	F	D	C+	F	F	C+	E-	E	D	F	E	E+
HCM2kAvgQ:	219	543	113	540	2620	275	256	405	442	272	317	130

Note: Queue reported is the distance per lane in feet.

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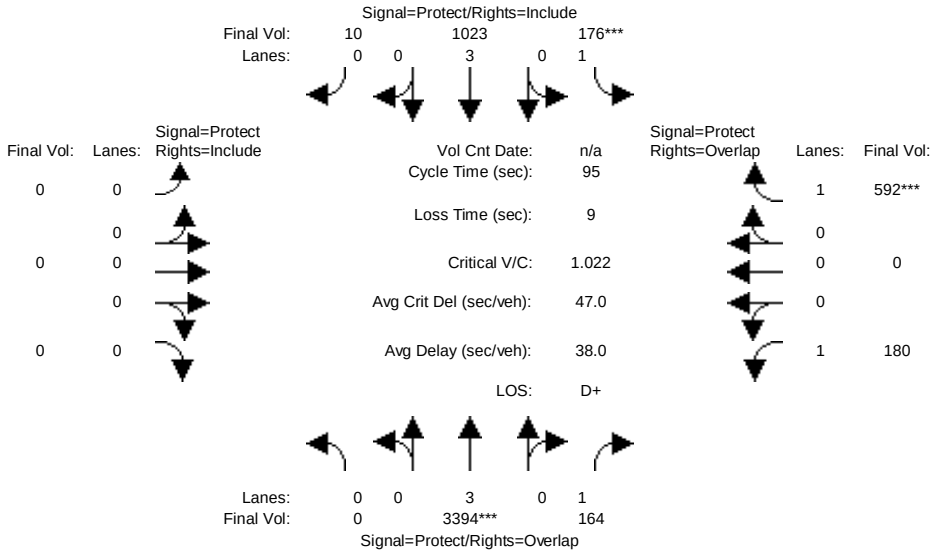
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #56: Lawrence Expressway/Doyle Road



Street Name:	Lawrence Expressway						Doyle Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	61	61	19	79	0	0	0	0	15	0	15
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	3355	164	176	999	10	0	0	0	180	0	592
Growth Adj:	1.00	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	3355	164	176	999	10	0	0	0	180	0	592
Added Vol:	0	39	0	0	24	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	3394	164	176	1023	10	0	0	0	180	0	592
User Adj:	1.00	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	3394	164	176	1023	10	0	0	0	180	0	592
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	3394	164	176	1023	10	0	0	0	180	0	592
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	3394	164	176	1023	10	0	0	0	180	0	592
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	2.97	0.03	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5546	54	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.60	0.09	0.10	0.18	0.18	0.00	0.00	0.00	0.10	0.00	0.34
Crit Moves:		****		****								****
Green Time:	0.0	55.7	69.4	17.4	73.1	73.1	0.0	0.0	0.0	13.7	0.0	31.1
Volume/Cap:	0.00	1.02	0.13	0.55	0.24	0.24	0.00	0.00	0.00	0.71	0.00	1.03
Uniform Del:	0.0	21.5	4.2	38.6	3.4	3.4	0.0	0.0	0.0	42.4	0.0	35.0
IncremntDel:	0.0	19.5	0.2	6.7	0.1	0.1	0.0	0.0	0.0	15.8	0.0	46.9
InitQueuDel:	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	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	41.0	4.4	45.3	3.5	3.5	0.0	0.0	0.0	58.2	0.0	81.9
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	41.0	4.4	45.3	3.5	3.5	0.0	0.0	0.0	58.2	0.0	81.9
LOS by Move:	A	D	A	D	A	A	A	A	A	E+	A	F
HCM2kAvgQ:	0	1142	42	154	79	79	0	0	0	186	0	725

Note: Queue reported is the distance per lane in feet.

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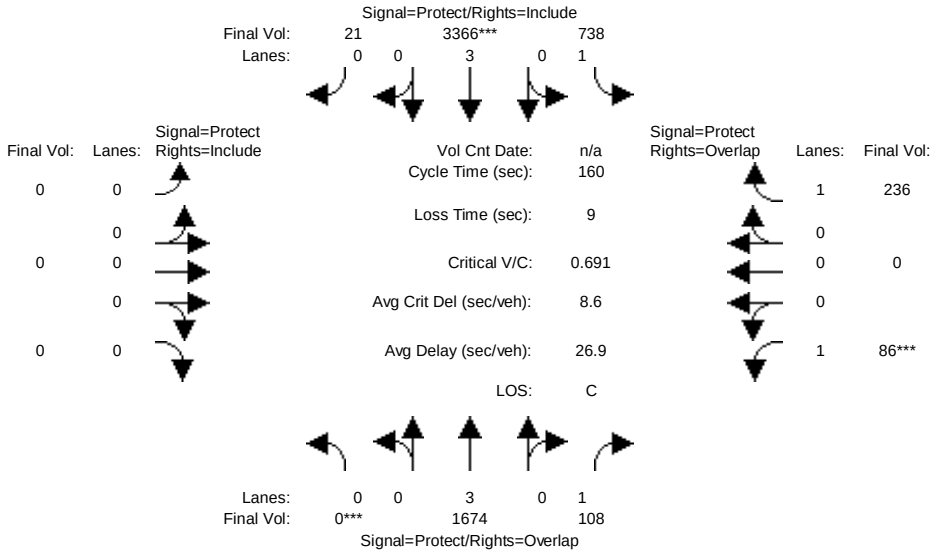
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #56: Lawrence Expressway/Doyle Road



Street Name:	Lawrence Expressway						Doyle Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	31	31	38	141	0	0	0	0	19	0	19
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1540	108	738	3221	21	0	0	0	86	0	236
Growth Adj:	1.00	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	1540	108	738	3221	21	0	0	0	86	0	236
Added Vol:	0	134	0	0	145	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1674	108	738	3366	21	0	0	0	86	0	236
User Adj:	1.00	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	1674	108	738	3366	21	0	0	0	86	0	236
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1674	108	738	3366	21	0	0	0	86	0	236
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1674	108	738	3366	21	0	0	0	86	0	236
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	2.98	0.02	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5565	35	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.29	0.06	0.42	0.60	0.60	0.00	0.00	0.00	0.05	0.00	0.13
Crit Moves:	****				****					****		
Green Time:	0.0	54.8	72.8	78.7	133	133.5	0.0	0.0	0.0	18.0	0.0	96.7
Volume/Cap:	0.00	0.86	0.14	0.86	0.72	0.72	0.00	0.00	0.00	0.44	0.00	0.22
Uniform Del:	0.0	51.7	26.8	37.7	5.9	5.9	0.0	0.0	0.0	70.0	0.0	15.3
IncremntDel:	0.0	5.1	0.4	10.8	1.0	1.0	0.0	0.0	0.0	6.9	0.0	0.5
InitQueuDel:	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	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	56.9	27.1	48.5	6.9	6.9	0.0	0.0	0.0	76.9	0.0	15.8
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	56.9	27.1	48.5	6.9	6.9	0.0	0.0	0.0	76.9	0.0	15.8
LOS by Move:	A	E+	C	D	A	A	A	A	A	E-	A	B
HCM2kAvgQ:	0	719	84	944	628	628	0	0	0	121	0	145

Note: Queue reported is the distance per lane in feet.

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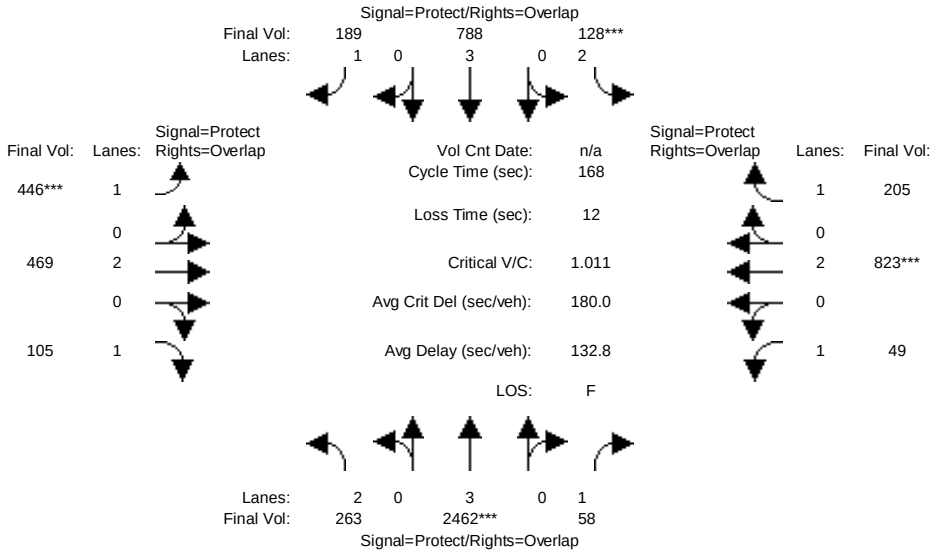
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #57: Lawrence Expressway/Prospect Road



Street Name:	Lawrence Expressway						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	22	57	57	21	56	56	48	75	75	16	43	43
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	263	2423	58	128	764	189	446	469	105	49	823	205
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	263	2423	58	128	764	189	446	469	105	49	823	205
Added Vol:	0	39	0	0	24	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	263	2462	58	128	788	189	446	469	105	49	823	205
User Adj:	1.00	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:	263	2462	58	128	788	189	446	469	105	49	823	205
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	263	2462	58	128	788	189	446	469	105	49	823	205
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	263	2462	58	128	788	189	446	469	105	49	823	205
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.43	0.03	0.04	0.14	0.11	0.25	0.12	0.06	0.03	0.22	0.12
Crit Moves:		****		****			****				****	
Green Time:	20.4	52.9	67.8	19.5	52.0	96.5	44.6	69.6	90.0	14.9	39.9	59.4
Volume/Cap:	0.69	1.37	0.08	0.35	0.45	0.19	0.96	0.30	0.11	0.32	0.91	0.33
Uniform Del:	76.2	62.0	33.3	73.7	50.1	18.4	65.6	35.4	20.7	77.4	67.2	42.8
IncremntDel:	9.7	171	0.2	2.6	0.8	0.4	33.1	0.5	0.2	5.3	15.0	1.4
InitQueuDel:	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:	85.9	233	33.6	76.3	50.9	18.8	98.7	35.9	21.0	82.7	82.1	44.3
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:	85.9	233	33.6	76.3	50.9	18.8	98.7	35.9	21.0	82.7	82.1	44.3
LOS by Move:	F	F	C-	E-	D	B-	F	D+	C+	F	F	D
HCM2kAvgQ:	237	1809	51	103	284	129	766	207	74	74	631	217

Note: Queue reported is the distance per lane in feet.

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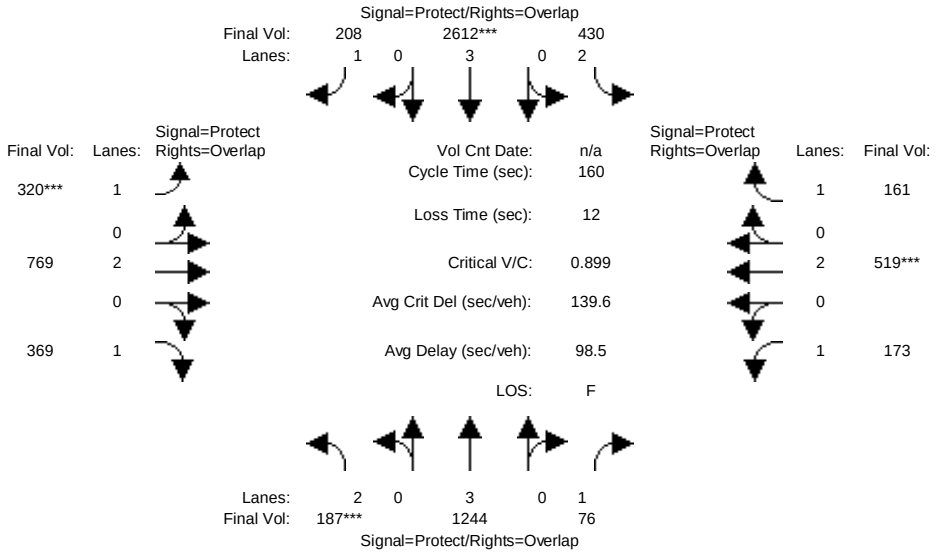
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #57: Lawrence Expressway/Prospect Road



Street Name:	Lawrence Expressway						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	20	49	49	34	62	62	38	52	52	26	39	39
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	187	1110	76	430	2467	208	320	769	369	173	519	161
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	187	1110	76	430	2467	208	320	769	369	173	519	161
Added Vol:	0	134	0	0	145	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	187	1244	76	430	2612	208	320	769	369	173	519	161
User Adj:	1.00	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:	187	1244	76	430	2612	208	320	769	369	173	519	161
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	187	1244	76	430	2612	208	320	769	369	173	519	161
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	187	1244	76	430	2612	208	320	769	369	173	519	161
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.22	0.04	0.14	0.46	0.12	0.18	0.20	0.21	0.10	0.14	0.09
Crit Moves:	****				****		****				****	
Green Time:	18.5	45.9	69.6	31.8	59.2	94.3	35.1	47.5	66.0	23.7	36.1	67.9
Volume/Cap:	0.51	0.76	0.10	0.69	1.24	0.20	0.83	0.68	0.51	0.67	0.61	0.22
Uniform Del:	71.9	56.3	28.9	64.3	54.5	16.5	64.5	53.6	37.9	69.6	60.1	31.6
IncremntDel:	5.1	3.4	0.3	6.0	112	0.4	18.7	3.3	2.6	12.8	3.2	0.7
InitQueuDel:	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:	77.0	59.7	29.1	70.3	166	17.0	83.1	57.0	40.4	82.4	63.3	32.2
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:	77.0	59.7	29.1	70.3	166	17.0	83.1	57.0	40.4	82.4	63.3	32.2
LOS by Move:	E-	E+	C	E	F	B	F	E+	D	F	E	C-
HCM2kAvgQ:	152	523	61	337	1678	133	487	457	384	257	316	140

Note: Queue reported is the distance per lane in feet.

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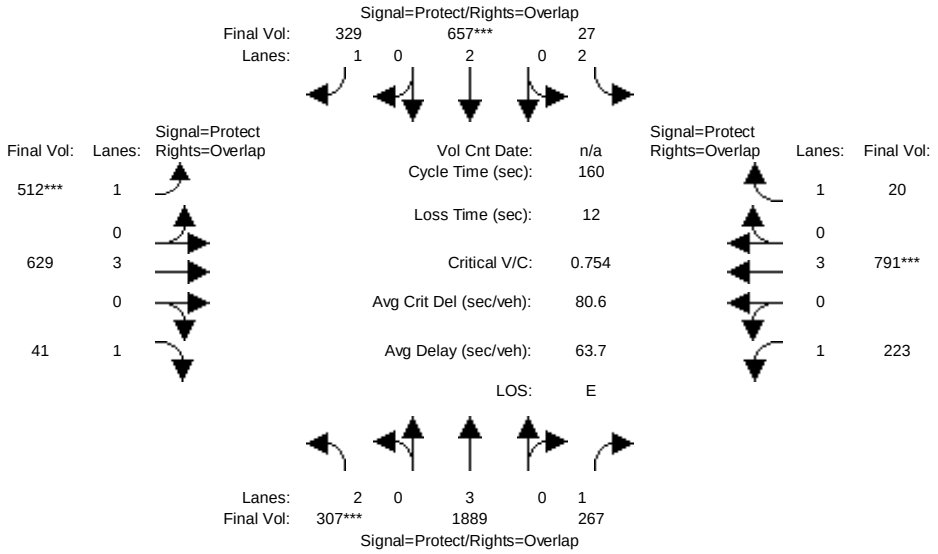
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #58: Lawrence Expressway/Saratoga Avenue



Street Name:	Lawrence Expressway						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	14	61	61	9	55	55	51	61	61	29	39	39
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	307	1865	267	27	643	319	496	629	41	223	791	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	307	1865	267	27	643	319	496	629	41	223	791	20
Added Vol:	0	24	0	0	14	10	16	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	307	1889	267	27	657	329	512	629	41	223	791	20
User Adj:	1.00	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:	307	1889	267	27	657	329	512	629	41	223	791	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	307	1889	267	27	657	329	512	629	41	223	791	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	307	1889	267	27	657	329	512	629	41	223	791	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	5700	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.33	0.15	0.01	0.17	0.19	0.29	0.11	0.02	0.13	0.14	0.01
Crit Moves:	****				****		****				****	
Green Time:	14.0	56.7	83.7	8.4	51.2	98.6	47.4	56.7	70.7	27.0	36.3	44.7
Volume/Cap:	1.12	0.93	0.29	0.16	0.54	0.31	0.99	0.31	0.05	0.76	0.61	0.04
Uniform Del:	78.5	53.6	23.1	77.9	48.1	15.6	60.2	40.3	27.4	68.1	59.7	45.2
IncremntDel:	89.7	9.6	0.8	2.1	1.7	0.7	36.4	0.4	0.1	16.4	2.2	0.2
InitQueuDel:	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:	168.2	63.2	23.9	80.0	49.8	16.3	96.5	40.7	27.6	84.6	61.9	45.4
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:	168.2	63.2	23.9	80.0	49.8	16.3	96.5	40.7	27.6	84.6	61.9	45.4
LOS by Move:	F	E	C	F	D	B	F	D	C	F	E	D
HCM2kAvgQ:	376	889	205	23	351	213	857	193	32	337	320	20

Note: Queue reported is the distance per lane in feet.

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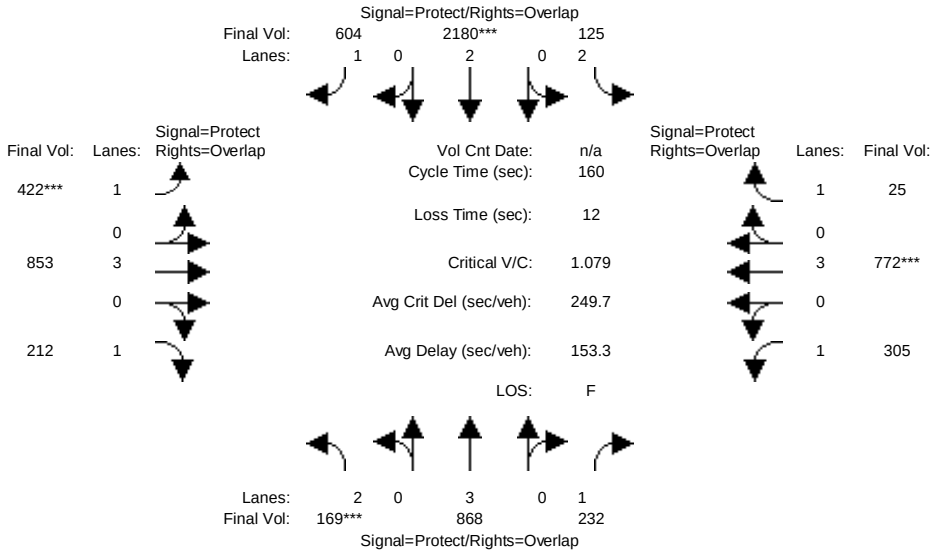
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #58: Lawrence Expressway/Saratoga Avenue



Street Name:	Lawrence Expressway						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	16	56	56	20	60	60	39	46	46	38	46	46
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	169	788	232	125	2093	546	368	853	212	305	772	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	169	788	232	125	2093	546	368	853	212	305	772	25
Added Vol:	0	80	0	0	87	58	54	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	169	868	232	125	2180	604	422	853	212	305	772	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:	169	868	232	125	2180	604	422	853	212	305	772	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	868	232	125	2180	604	422	853	212	305	772	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:	169	868	232	125	2180	604	422	853	212	305	772	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	5700	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.15	0.13	0.04	0.57	0.35	0.24	0.15	0.12	0.17	0.14	0.01
Crit Moves:	****				****		****				****	
Green Time:	14.8	51.8	87.4	18.5	55.5	91.6	36.1	43.0	57.8	35.6	42.5	61.0
Volume/Cap:	0.58	0.47	0.24	0.34	1.65	0.60	1.07	0.56	0.34	0.78	0.51	0.04
Uniform Del:	75.3	46.7	20.6	70.5	56.5	24.2	67.0	54.3	40.1	63.4	53.9	33.6
IncremntDel:	8.2	0.9	0.6	2.6	298	2.7	65.1	1.5	1.4	14.6	1.2	0.1
InitQueuDel:	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:	83.5	47.5	21.2	73.0	354	26.9	132.1	55.8	41.5	78.0	55.1	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:	83.5	47.5	21.2	73.0	354	26.9	132.1	55.8	41.5	78.0	55.1	33.7
LOS by Move:	F	D	C+	E	F	C	F	E+	D	E-	E+	C-
HCM2kAvgQ:	148	299	166	96	2717	552	792	324	213	447	288	21

Note: Queue reported is the distance per lane in feet.

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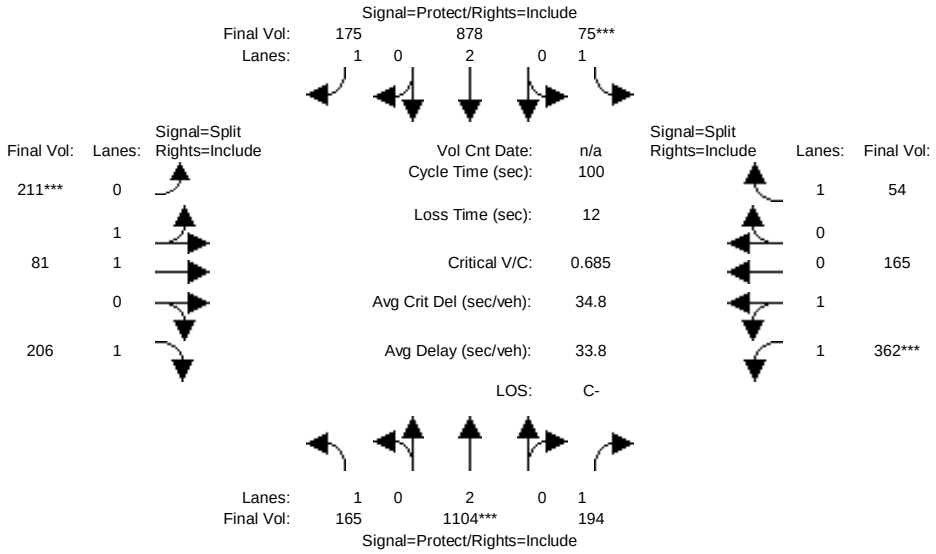
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #59: Saratoga Avenue/Cox Avenue



Street Name:	Cox Avenue						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	165	1088	194	75	868	175	211	81	206	362	165	54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	165	1088	194	75	868	175	211	81	206	362	165	54
Added Vol:	0	16	0	0	10	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	165	1104	194	75	878	175	211	81	206	362	165	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:	165	1104	194	75	878	175	211	81	206	362	165	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	165	1104	194	75	878	175	211	81	206	362	165	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:	165	1104	194	75	878	175	211	81	206	362	165	54
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.38	0.62	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	1900	1750	2438	1111	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.29	0.11	0.04	0.23	0.10	0.12	0.04	0.12	0.15	0.15	0.03
Crit Moves:		****		****			****			****		
Green Time:	14.2	42.1	42.1	7.0	34.8	34.8	17.5	17.5	17.5	21.5	21.5	21.5
Volume/Cap:	0.66	0.69	0.26	0.61	0.66	0.29	0.69	0.24	0.67	0.69	0.69	0.14
Uniform Del:	40.6	23.7	18.9	45.2	27.6	23.6	38.7	35.6	38.6	36.2	36.2	31.8
IncremntDel:	13.1	2.5	0.9	20.7	2.6	1.2	8.9	0.5	11.3	5.1	5.1	0.8
InitQueuDel:	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:	53.7	26.1	19.8	65.9	30.2	24.8	47.7	36.1	49.9	41.3	41.3	32.6
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:	53.7	26.1	19.8	65.9	30.2	24.8	47.7	36.1	49.9	41.3	41.3	32.6
LOS by Move:	D-	C	B-	E	C	C	D	D+	D	D	D	C-
HCM2kAvgQ:	161	365	104	88	305	106	198	56	191	230	230	37

Note: Queue reported is the distance per lane in feet.

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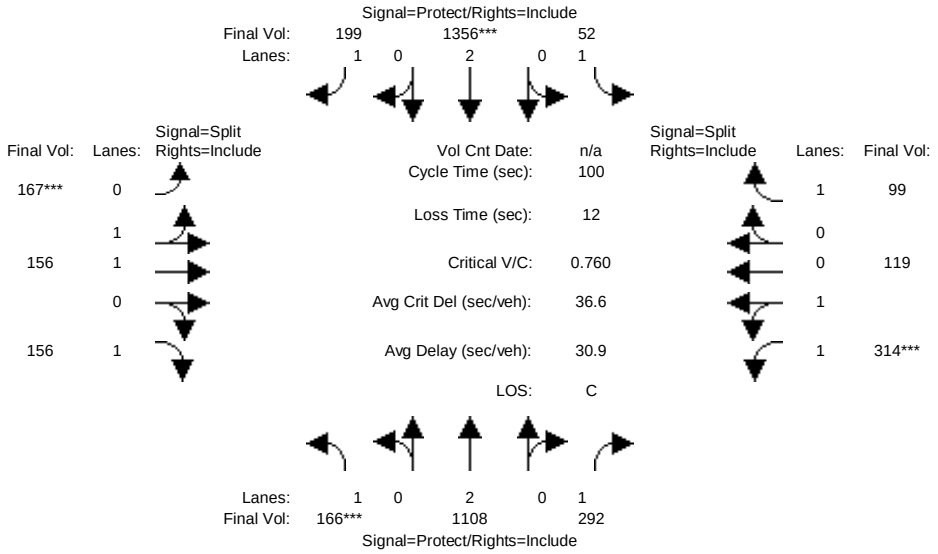
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #59: Saratoga Avenue/Cox Avenue



Street Name:	Cox Avenue						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	166	1054	292	52	1298	199	167	156	156	314	119	99
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	166	1054	292	52	1298	199	167	156	156	314	119	99
Added Vol:	0	54	0	0	58	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	166	1108	292	52	1356	199	167	156	156	314	119	99
User Adj:	1.00	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:	166	1108	292	52	1356	199	167	156	156	314	119	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	166	1108	292	52	1356	199	167	156	156	314	119	99
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	166	1108	292	52	1356	199	167	156	156	314	119	99
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.46	0.54	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	1900	1750	2574	976	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.29	0.17	0.03	0.36	0.11	0.10	0.08	0.09	0.12	0.12	0.06
Crit Moves:	****				****		****			****		
Green Time:	12.5	47.9	47.9	11.5	46.9	46.9	12.6	12.6	12.6	16.0	16.0	16.0
Volume/Cap:	0.76	0.61	0.35	0.26	0.76	0.24	0.76	0.65	0.71	0.76	0.76	0.35
Uniform Del:	42.3	19.2	16.3	40.4	21.9	15.9	42.3	41.7	42.0	40.1	40.1	37.4
IncremntDel:	21.8	1.5	1.1	3.1	3.1	0.7	12.1	6.6	17.7	9.2	9.2	3.5
InitQueuDel:	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:	64.1	20.7	17.4	43.4	25.0	16.6	54.4	48.3	59.7	49.4	49.4	40.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	64.1	20.7	17.4	43.4	25.0	16.6	54.4	48.3	59.7	49.4	49.4	40.8
LOS by Move:	E	C+	B	D	C	B	D-	D	E+	D	D	D
HCM2kAvgQ:	180	321	151	44	460	98	181	144	163	216	216	80

Note: Queue reported is the distance per lane in feet.

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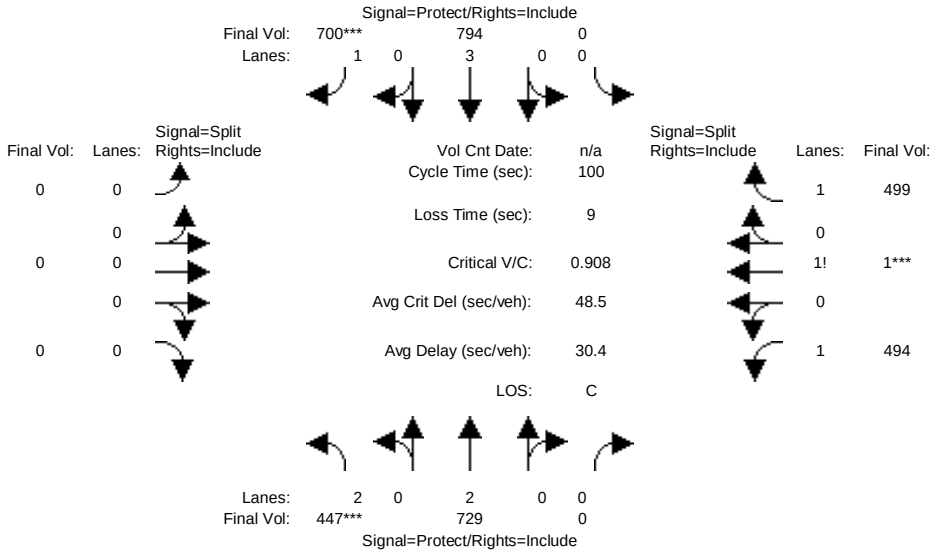
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #60: Saratoga Avenue/SR 85 Ramps North



Street Name:	Saratoga Avenue						SR 85 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	447	729	0	0	784	700	0	0	0	494	1	483
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	447	729	0	0	784	700	0	0	0	494	1	483
Added Vol:	0	0	0	0	10	0	0	0	0	0	0	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	447	729	0	0	794	700	0	0	0	494	1	499
User Adj:	1.00	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:	447	729	0	0	794	700	0	0	0	494	1	499
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	447	729	0	0	794	700	0	0	0	494	1	499
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	447	729	0	0	794	700	0	0	0	494	1	499
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	2.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.49	0.01	1.50
Final Sat.:	3150	3800	0	0	5700	1750	0	0	0	2619	4	2628
Capacity Analysis Module:												
Vol/Sat:	0.14	0.19	0.00	0.00	0.14	0.40	0.00	0.00	0.00	0.19	0.28	0.19
Crit Moves:	****					****					****	
Green Time:	15.6	59.7	0.0	0.0	44.1	44.1	0.0	0.0	0.0	31.3	31.3	31.3
Volume/Cap:	0.91	0.32	0.00	0.00	0.32	0.91	0.00	0.00	0.00	0.60	0.91	0.61
Uniform Del:	41.5	10.1	0.0	0.0	18.2	26.1	0.0	0.0	0.0	29.1	33.0	29.1
IncremntDel:	23.1	0.4	0.0	0.0	0.3	16.5	0.0	0.0	0.0	1.6	12.5	1.7
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	64.6	10.4	0.0	0.0	18.5	42.5	0.0	0.0	0.0	30.7	45.4	30.8
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:	64.6	10.4	0.0	0.0	18.5	42.5	0.0	0.0	0.0	30.7	45.4	30.8
LOS by Move:	E	B+	A	A	B-	D	A	A	A	C	D	C
HCM2kAvgQ:	252	141	0	0	131	643	0	0	0	247	497	249

Note: Queue reported is the distance per lane in feet.

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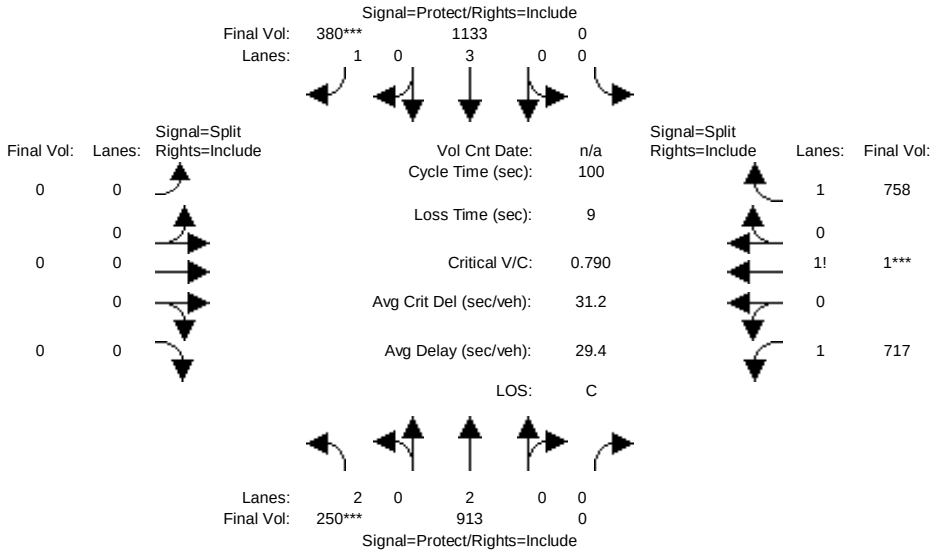
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #60: Saratoga Avenue/SR 85 Ramps North



Street Name:	Saratoga Avenue						SR 85 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	250	913	0	0	1075	380	0	0	0	717	1	704
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	250	913	0	0	1075	380	0	0	0	717	1	704
Added Vol:	0	0	0	0	58	0	0	0	0	0	0	54
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	250	913	0	0	1133	380	0	0	0	717	1	758
User Adj:	1.00	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:	250	913	0	0	1133	380	0	0	0	717	1	758
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	250	913	0	0	1133	380	0	0	0	717	1	758
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	250	913	0	0	1133	380	0	0	0	717	1	758
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	2.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.48	0.01	1.51
Final Sat.:	3150	3800	0	0	5700	1750	0	0	0	2600	2	2648
Capacity Analysis Module:												
Vol/Sat:	0.08	0.24	0.00	0.00	0.20	0.22	0.00	0.00	0.00	0.28	0.42	0.29
Crit Moves:	****					****					****	
Green Time:	10.1	37.6	0.0	0.0	27.5	27.5	0.0	0.0	0.0	53.4	53.4	53.4
Volume/Cap:	0.79	0.64	0.00	0.00	0.72	0.79	0.00	0.00	0.00	0.52	0.79	0.54
Uniform Del:	43.9	25.7	0.0	0.0	32.8	33.6	0.0	0.0	0.0	15.0	18.7	15.2
IncremntDel:	17.9	2.2	0.0	0.0	2.9	12.4	0.0	0.0	0.0	0.7	3.5	0.8
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	61.9	27.9	0.0	0.0	35.7	46.0	0.0	0.0	0.0	15.6	22.2	15.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	61.9	27.9	0.0	0.0	35.7	46.0	0.0	0.0	0.0	15.6	22.2	15.9
LOS by Move:	E	C	A	A	D+	D	A	A	A	B	C+	B
HCM2kAvgQ:	130	298	0	0	295	342	0	0	0	260	532	275

Note: Queue reported is the distance per lane in feet.

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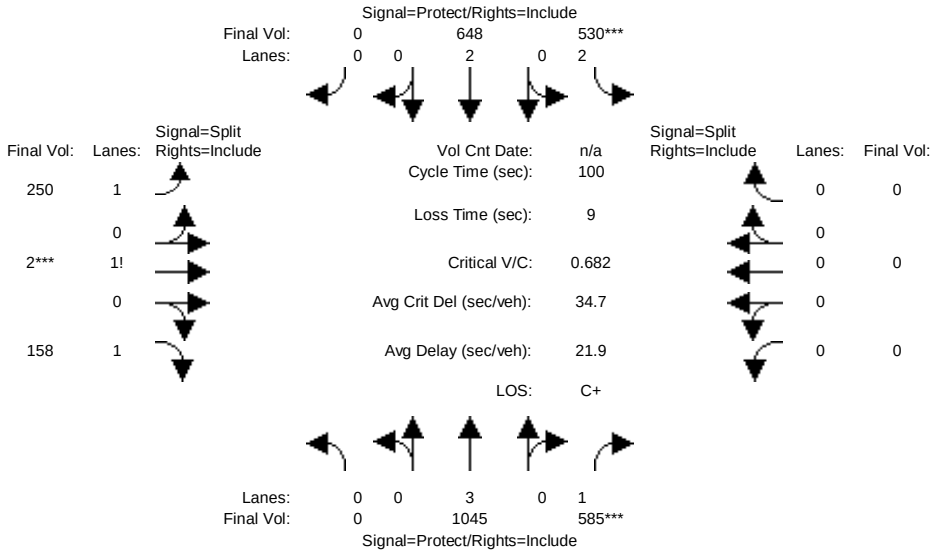
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #61: Saratoga Avenue/SR 85 Ramps South



Street Name:	Saratoga Avenue						SR 85 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1045	585	520	648	0	250	2	158	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1045	585	520	648	0	250	2	158	0	0	0
Added Vol:	0	0	0	10	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1045	585	530	648	0	250	2	158	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	1045	585	530	648	0	250	2	158	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1045	585	530	648	0	250	2	158	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	1045	585	530	648	0	250	2	158	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	1.61	0.01	1.38	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	2812	17	2421	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.33	0.17	0.17	0.00	0.09	0.12	0.07	0.00	0.00	0.00
Crit Moves:			****	****				****				
Green Time:	0.0	49.0	49.0	24.7	73.7	0.0	17.3	17.3	17.3	0.0	0.0	0.0
Volume/Cap:	0.00	0.37	0.68	0.68	0.23	0.00	0.51	0.68	0.38	0.00	0.00	0.00
Uniform Del:	0.0	15.9	19.5	34.1	4.2	0.0	37.6	38.8	36.6	0.0	0.0	0.0
IncremntDel:	0.0	0.4	4.4	4.8	0.2	0.0	2.4	6.1	1.0	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	16.3	23.9	38.9	4.4	0.0	39.9	44.9	37.6	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:	0.0	16.3	23.9	38.9	4.4	0.0	39.9	44.9	37.6	0.0	0.0	0.0
LOS by Move:	A	B	C	D+	A	A	D	D	D+	A	A	A
HCM2kAvgQ:	0	166	388	236	82	0	132	192	91	0	0	0

Note: Queue reported is the distance per lane in feet.

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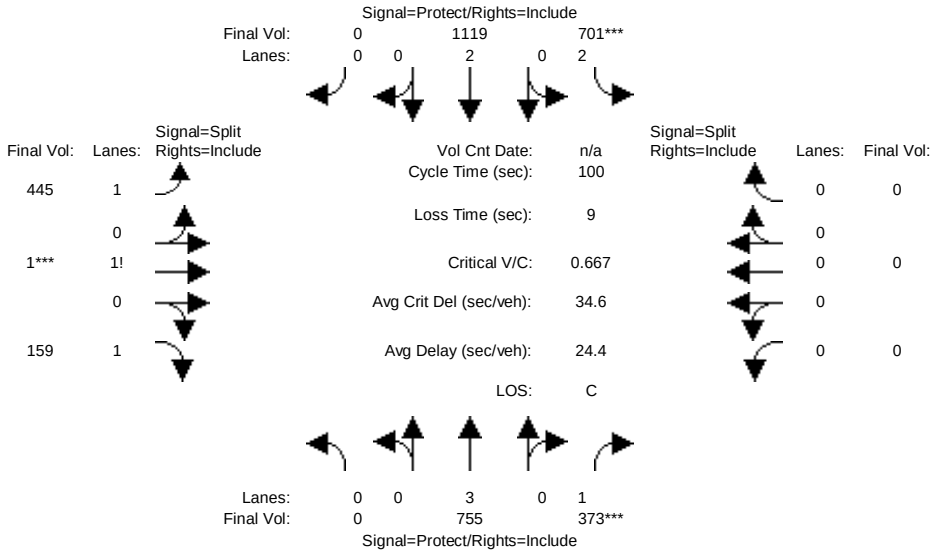
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #61: Saratoga Avenue/SR 85 Ramps South



Street Name:	Saratoga Avenue						SR 85 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	755	373	643	1119	0	445	1	159	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	755	373	643	1119	0	445	1	159	0	0	0
Added Vol:	0	0	0	58	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	755	373	701	1119	0	445	1	159	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	755	373	701	1119	0	445	1	159	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	755	373	701	1119	0	445	1	159	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	755	373	701	1119	0	445	1	159	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.93	0.95	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	1.73	0.01	1.26	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	3074	6	2214	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.13	0.21	0.22	0.29	0.00	0.14	0.17	0.07	0.00	0.00	0.00
Crit Moves:			****	****				****				
Green Time:	0.0	32.0	32.0	33.4	65.3	0.0	25.7	25.7	25.7	0.0	0.0	0.0
Volume/Cap:	0.00	0.41	0.67	0.67	0.45	0.00	0.56	0.67	0.28	0.00	0.00	0.00
Uniform Del:	0.0	26.7	29.4	28.6	8.5	0.0	32.3	33.3	29.7	0.0	0.0	0.0
IncremntDel:	0.0	0.7	6.2	3.4	0.6	0.0	2.1	3.9	0.3	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	27.4	35.6	31.9	9.1	0.0	34.4	37.2	30.1	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	27.4	35.6	31.9	9.1	0.0	34.4	37.2	30.1	0.0	0.0	0.0
LOS by Move:	A	C	D+	C	A	A	C-	D+	C	A	A	A
HCM2kAvgQ:	0	155	290	278	209	0	197	249	85	0	0	0

Note: Queue reported is the distance per lane in feet.

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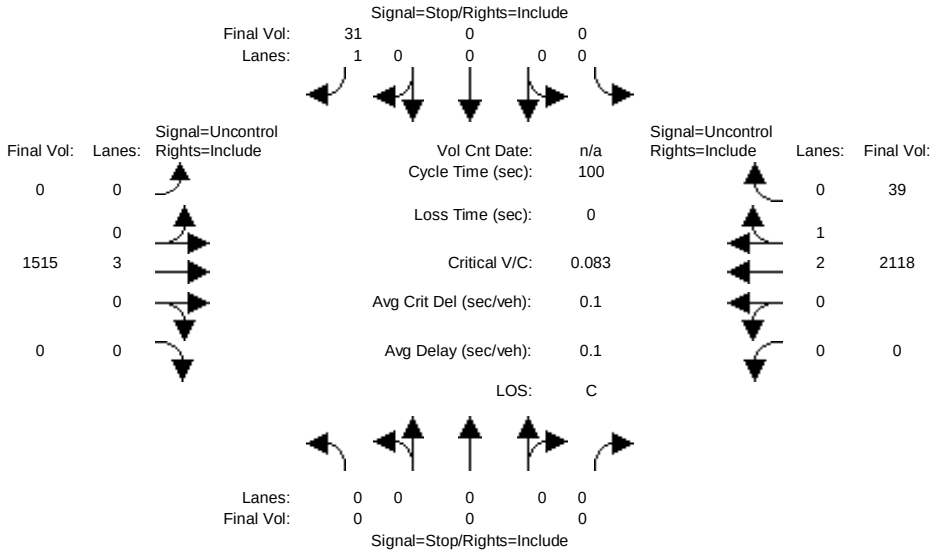
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #62: Stevens Creek Boulevard/Vallco Driveway 5



Street Name:	Vallco Driveway 5						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	0	0	0	0	31	0	1515	0	0	2118	39
Growth Adj:	1.00	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	0	0	31	0	1515	0	0	2118	39
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	0	0	31	0	1515	0	0	2118	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:	0	0	0	0	0	31	0	1515	0	0	2118	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	31	0	1515	0	0	2118	39
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	726	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	372	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	372	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.08	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	6.8	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	15.6	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	C	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			15.6			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	31	0	1515	0	0	2118	39
ApproachDel:	xxxxxx			15.6			xxxxxx			xxxxxx		

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=31]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=3703]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	31	0	1515	0	0	2118	39

Major Street Volume: 3672
Minor Approach Volume: 31
Minor Approach Volume Threshold: -163 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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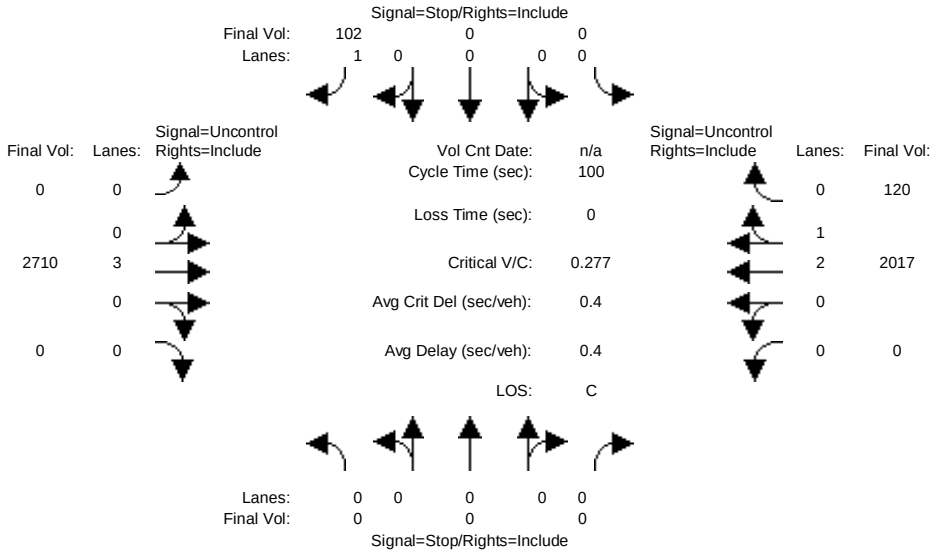
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #62: Stevens Creek Boulevard/Vallco Driveway 5



Street Name:	Vallco Driveway 5						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	0	0	0	0	0	102	0	2710	0	0	2017	120
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	102	0	2710	0	0	2017	120
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	0	0	102	0	2710	0	0	2017	120
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	0	0	102	0	2710	0	0	2017	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	102	0	2710	0	0	2017	120
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	732	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	368	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	368	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.28	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	27.8	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	18.5	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	C	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			18.5			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	102	0	2710	0	0	2017	120
ApproachDel:	xxxxxx			18.5			xxxxxx			xxxxxx		

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.5]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=102]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=4949]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	102	0	2710	0	0	2017	120

Major Street Volume: 4847
Minor Approach Volume: 102
Minor Approach Volume Threshold: -259 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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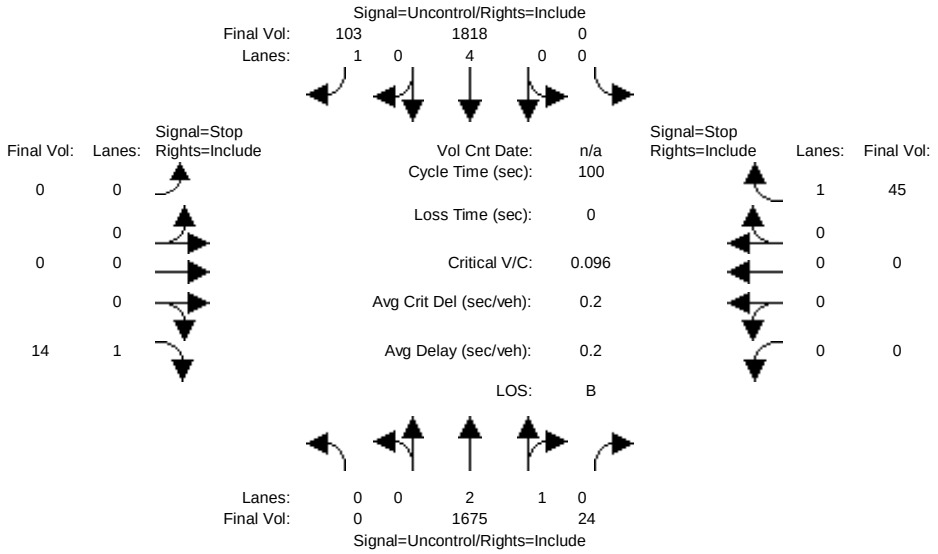
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #1163: Wolfe Road/Vallco Driveway 1



Street Name:	Wolfe Road						Vallco Driveway 1					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	1675	24	0	1818	103	0	0	14	0	0	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1675	24	0	1818	103	0	0	14	0	0	45
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	1675	24	0	1818	103	0	0	14	0	0	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	1675	24	0	1818	103	0	0	14	0	0	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1675	24	0	1818	103	0	0	14	0	0	45
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	455	xxxx	xxxx	570
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	558	xxxx	xxxx	469
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	558	xxxx	xxxx	469
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	0.10
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	1.9	xxxx	xxxx	7.9
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	11.6	xxxxx	xxxx	13.5
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			11.6			13.5		
ApproachLOS:	*			*			B			B		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #1163 Wolfe Road/Vallco Driveway 1

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 4	0	1	0 0 0	0	1	0 0 0	0	1
Initial Vol:	0 1675	24		0 1818	103		0	0	14	0	0	45
ApproachDel:	xxxxxx			xxxxxx			11.6			13.5		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=14]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3679]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=45]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3679]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1163 Wolfe Road/Vallco Driveway 1

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 4	0	1	0 0 0	0	1	0 0 0	0	1
Initial Vol:	0 1675	24		0 1818	103		0	0	14	0	0	45

Major Street Volume: 3620
Minor Approach Volume: 45
Minor Approach Volume Threshold: -158 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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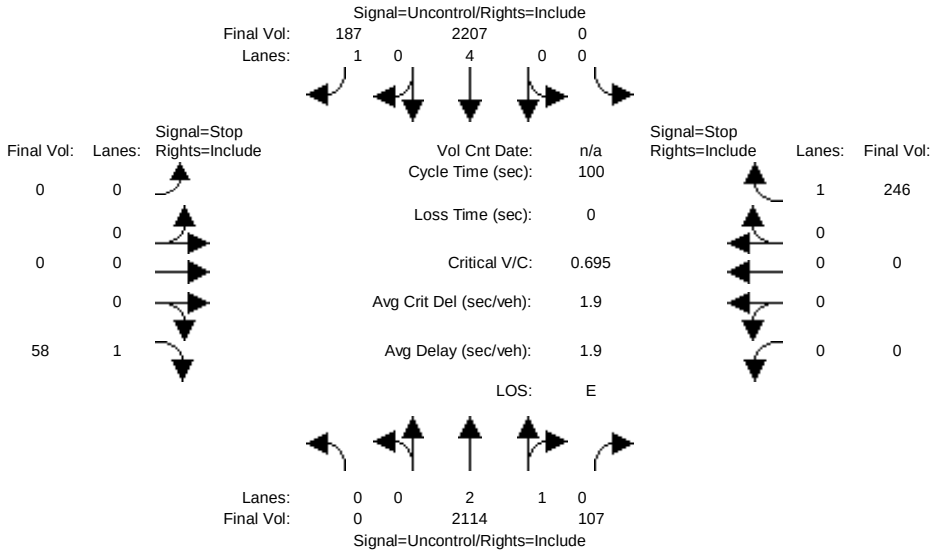
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #1163: Wolfe Road/Vallco Driveway 1



Street Name:	Wolfe Road						Vallco Driveway 1					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	0	2114	107	0	2207	187	0	0	58	0	0	246
Growth Adj:	1.00	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	2114	107	0	2207	187	0	0	58	0	0	246
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	2114	107	0	2207	187	0	0	58	0	0	246
User Adj:	1.00	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	2114	107	0	2207	187	0	0	58	0	0	246
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	2114	107	0	2207	187	0	0	58	0	0	246
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	552	xxxx	xxxx	758
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	483	xxxx	xxxx	354
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	483	xxxx	xxxx	354
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.12	xxxx	xxxx	0.70
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	10.2	xxxx	xxxx	124.8
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	13.5	xxxxx	xxxx	35.4
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	E
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			13.5			35.4		
ApproachLOS:	*			*			B			E		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #1163 Wolfe Road/Vallco Driveway 1

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 4	0	1	0 0 0	0	1	0 0 0	0	1
Initial Vol:	0 2114	107		0 2207	187		0	0	58	0	0	246
ApproachDel:	xxxxxx			xxxxxx			13.5			35.4		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=58]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=4919]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=2.4]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=246]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=4919]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1163 Wolfe Road/Vallco Driveway 1

****

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 4	0	1	0 0 0	0	1	0 0 0	0	1
Initial Vol:	0 2114	107		0 2207	187		0	0	58	0	0	246

Major Street Volume: 4615
Minor Approach Volume: 246
Minor Approach Volume Threshold: -242 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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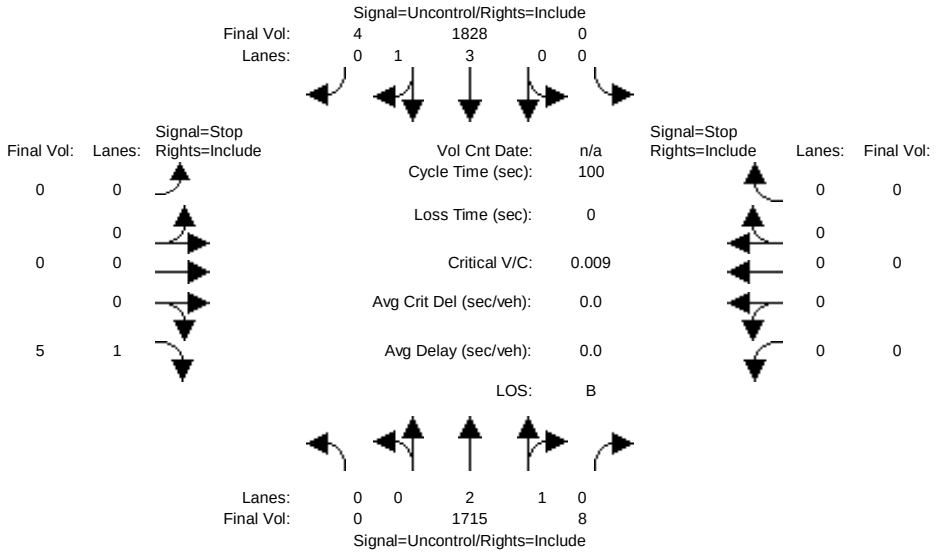
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #64: Wolfe Road/Vallco Driveway 2



Street Name:	Wolfe Road						Vallco Driveway 2					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	1715	8	0	1828	4	0	0	5	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1715	8	0	1828	4	0	0	5	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1715	8	0	1828	4	0	0	5	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	1715	8	0	1828	4	0	0	5	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1715	8	0	1828	4	0	0	5	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	459	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	554	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	554	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.7	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	11.6	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			11.6			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #64 Wolfe Road/Vallco Driveway 2

****

Future Volume Alternative: Peak Hour Warrant NOT Met

 Copyright (c) 2008 Dowling Associates, Inc.

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 3	1	0	0 0 0	0	1	0 0 0	0	0
Initial Vol:	0 1715	8		0 1828	4		0 0	5		0 0	0	
ApproachDel:	xxxxxx			xxxxxx			11.6			xxxxxx		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=5]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=3560]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #64 Wolfe Road/Vallco Driveway 2

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 3	1	0	0 0 0	0	1	0 0 0	0	0
Initial Vol:	0 1715	8		0 1828	4		0 0	5		0 0	0	

Major Street Volume: 3555
Minor Approach Volume: 5
Minor Approach Volume Threshold: -152 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
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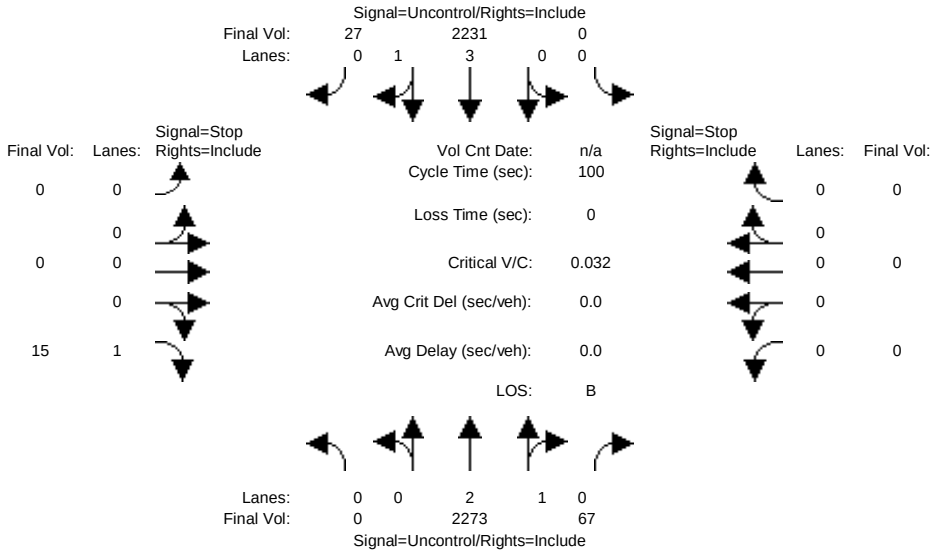
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #64: Wolfe Road/Vallco Driveway 2



Street Name:	Wolfe Road						Vallco Driveway 2					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	2273	67	0	2231	27	0	0	15	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2273	67	0	2231	27	0	0	15	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2273	67	0	2231	27	0	0	15	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	2273	67	0	2231	27	0	0	15	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	2273	67	0	2231	27	0	0	15	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	571	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	469	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	469	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	2.5	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	12.9	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			12.9			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #64 Wolfe Road/Vallco Driveway 2

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 3	1	0	0 0 0	0	1	0 0 0	0	0
Initial Vol:	0 2273	67		0 2231	27		0 0		15	0 0		0
ApproachDel:	xxxxxx			xxxxxx			12.9			xxxxxx		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=15]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=4613]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #64 Wolfe Road/Vallco Driveway 2

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 3	1	0	0 0 0	0	1	0 0 0	0	0
Initial Vol:	0 2273	67		0 2231	27		0 0		15	0 0		0

Major Street Volume: 4598
Minor Approach Volume: 15
Minor Approach Volume Threshold: -241 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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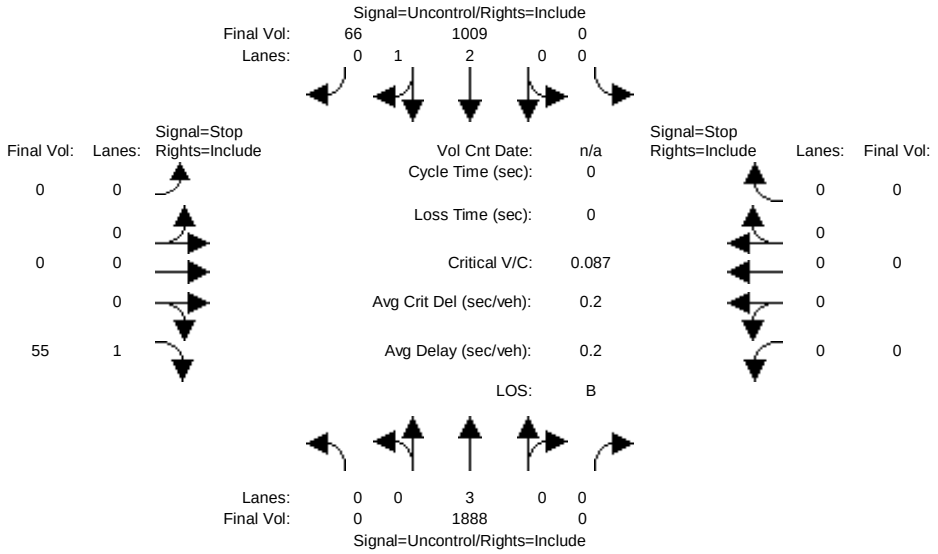
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #65: Wolfe Road/Vallco Driveway 3



Street Name:	Wolfe Road						Vallco Driveway 3					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	1888	0	0	1009	66	0	0	55	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1888	0	0	1009	66	0	0	55	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1888	0	0	1009	66	0	0	55	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	1888	0	0	1009	66	0	0	55	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1888	0	0	1009	66	0	0	55	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	369	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	634	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	634	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.09	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	7.1	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	11.2	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			11.2			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 2	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0 1888	0		0 1009	66		0	0	55	0	0	0
ApproachDel:	xxxxxx			xxxxxx			11.2			xxxxxx		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=55]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=3018]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 2	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0 1888	0		0 1009	66		0	0	55	0	0	0

Major Street Volume: 2963
Minor Approach Volume: 55
Minor Approach Volume Threshold: -89 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
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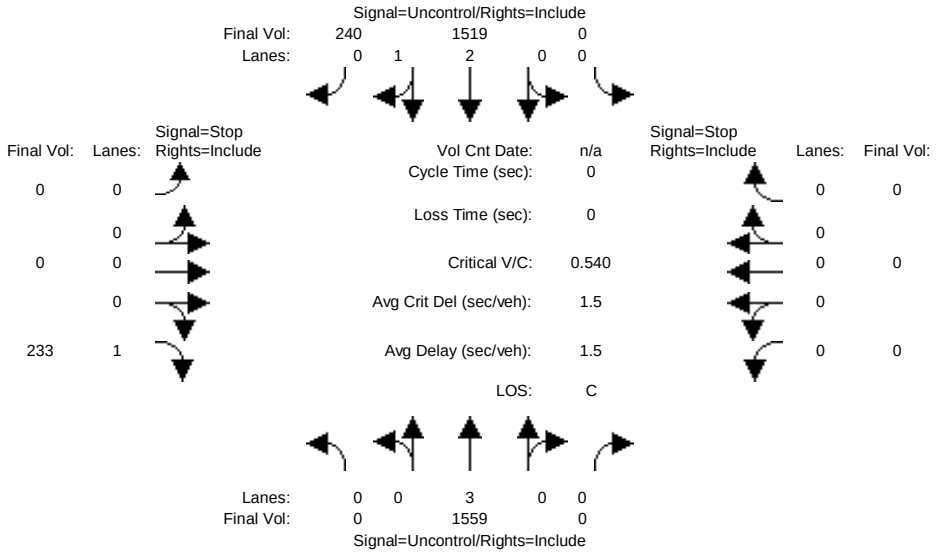
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #65: Wolfe Road/Vallco Driveway 3



Street Name:	Wolfe Road						Vallco Driveway 3					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	1559	0	0	1519	240	0	0	233	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1559	0	0	1519	240	0	0	233	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1559	0	0	1519	240	0	0	233	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	1559	0	0	1519	240	0	0	233	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1559	0	0	1519	240	0	0	233	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	626	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	432	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	432	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.54	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	78.1	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	22.7	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	C	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			22.7			xxxxxx		
ApproachLOS:	*			*			C			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 2	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0 1559	0		0 1519	240		0	0	233	0	0	0
ApproachDel:	xxxxxx			xxxxxx			22.7			xxxxxx		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.5]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=233]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=3551]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 2	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0 1559	0		0 1519	240		0	0	233	0	0	0

Major Street Volume: 3318
Minor Approach Volume: 233
Minor Approach Volume Threshold: -128 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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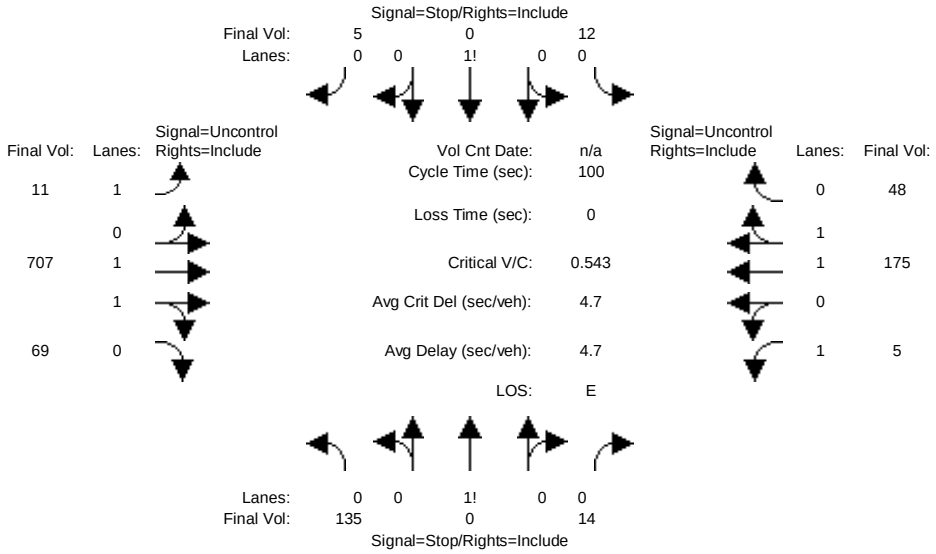
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #66: Vallco Parkway/Vallco Driveway 4



Street Name:	Vallco Driveway 4						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	135	0	14	12	0	5	11	707	69	5	175	48
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	135	0	14	12	0	5	11	707	69	5	175	48
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:	135	0	14	12	0	5	11	707	69	5	175	48
User Adj:	1.00	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:	135	0	14	12	0	5	11	707	69	5	175	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	135	0	14	12	0	5	11	707	69	5	175	48
Critical Gap Module:												
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	861	997	388	585	1007	112	223	xxxx	xxxxx	776	xxxx	xxxxx
Potent Cap.:	253	246	616	399	243	927	1358	xxxx	xxxxx	849	xxxx	xxxxx
Move Cap.:	249	243	616	386	239	927	1358	xxxx	xxxxx	849	xxxx	xxxxx
Volume/Cap:	0.54	0.00	0.02	0.03	0.00	0.01	0.01	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.6	xxxx	xxxxx	0.4	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx	9.3	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	263	xxxxx	xxxx	466	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	3.2	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	35.1	xxxxx	xxxxx	13.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	E	*	*	B	*	*	*	*	*	*	*
ApproachDel:		35.1			13.0		xxxxx			xxxxx		
ApproachLOS:		E			B		*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Copyright (c) 2008 Dowling Associates, Inc.

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			1 0 1 1 0			1 0 1 1 0		
Initial Vol:	135	0	14	12	0	5	11	707	69	5	175	48
ApproachDel:	35.1			13.0			xxxxxx			xxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.5]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=149]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1181]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=17]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1181]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			1 0 1 1 0			1 0 1 1 0		
Initial Vol:	135	0	14	12	0	5	11	707	69	5	175	48

Major Street Volume: 1015
Minor Approach Volume: 149
Minor Approach Volume Threshold: 280

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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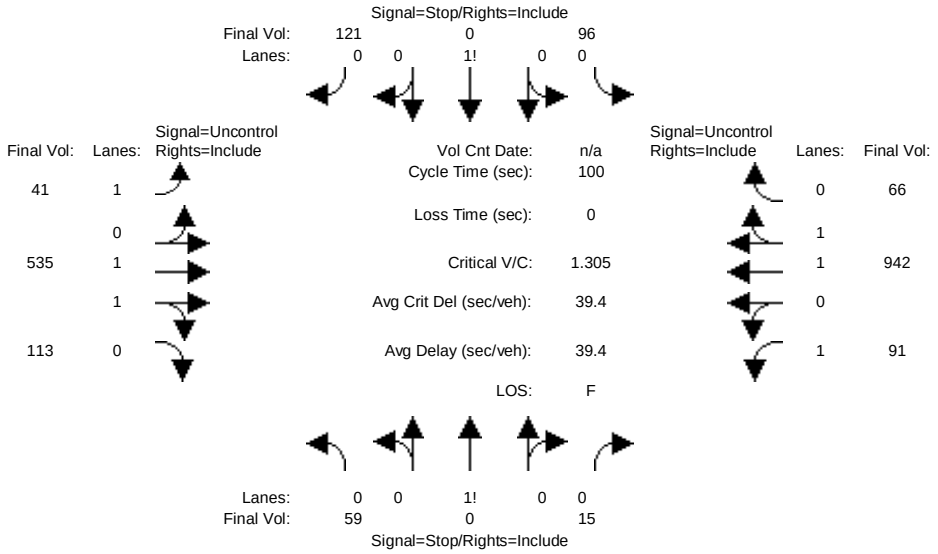
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #66: Vallco Parkway/Vallco Driveway 4



Street Name:	Vallco Driveway 4						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	59	0	15	96	0	121	41	535	113	91	942	66
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	59	0	15	96	0	121	41	535	113	91	942	66
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:	59	0	15	96	0	121	41	535	113	91	942	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:	59	0	15	96	0	121	41	535	113	91	942	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	59	0	15	96	0	121	41	535	113	91	942	66
Critical Gap Module:												
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1327	1864	324	1507	1887	504	1008	xxxx	xxxxx	648	xxxx	xxxxx
Potent Cap.:	115	74	678	85	71	518	695	xxxx	xxxxx	947	xxxx	xxxxx
Move Cap.:	78	63	678	74	61	518	695	xxxx	xxxxx	947	xxxx	xxxxx
Volume/Cap:	0.75	0.00	0.02	1.31	0.00	0.23	0.06	xxxx	xxxx	0.10	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	4.7	xxxx	xxxxx	7.9	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.5	xxxx	xxxxx	9.2	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	95	xxxxx	xxxx	141	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	4.1	xxxxx	xxxxx	14.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	117	xxxxx	xxxxx	332	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	F	*	*	F	*	*	*	*	*	*	*
ApproachDel:	117.4			331.7			xxxxxx			xxxxxx		
ApproachLOS:	F			F			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1	0	1 0	1	0
Initial Vol:	59	0	15	96	0	121	41	535	113	91	942	66
ApproachDel:	117.4			331.7			xxxxx			xxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=2.4]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=74]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=2079]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=20.0]
SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=217]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=2079]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1	0	1 0	1	0
Initial Vol:	59	0	15	96	0	121	41	535	113	91	942	66

Major Street Volume: 1788
Minor Approach Volume: 217
Minor Approach Volume Threshold: 85 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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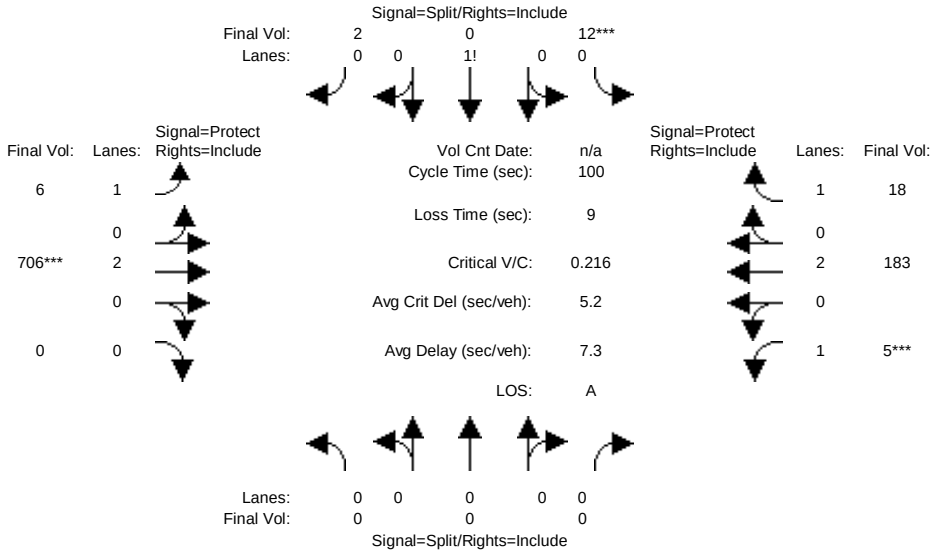
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending AM

Intersection #67: Vallco Parkway/Perimeter Road



Street Name:	Perimeter Road						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	0	0	10	0	10	7	10	0	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	12	0	2	6	706	0	5	183	18
Growth Adj:	1.00	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	12	0	2	6	706	0	5	183	18
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	12	0	2	6	706	0	5	183	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:	0	0	0	12	0	2	6	706	0	5	183	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	12	0	2	6	706	0	5	183	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:	0	0	0	12	0	2	6	706	0	5	183	18
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	0.86	0.00	0.14	1.00	2.00	0.00	1.00	2.00	1.00
Final Sat.:	0	0	0	1500	0	250	1750	3800	0	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.19	0.00	0.00	0.05	0.01
Crit Moves:				****				****		****		
Green Time:	0.0	0.0	0.0	10.0	0.0	10.0	33.4	74.0	0.0	7.0	47.6	47.6
Volume/Cap:	0.00	0.00	0.00	0.08	0.00	0.08	0.01	0.25	0.00	0.04	0.10	0.02
Uniform Del:	0.0	0.0	0.0	40.8	0.0	40.8	22.3	4.2	0.0	43.4	14.4	13.8
IncremntDel:	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00
Delay/Veh:	0.0	0.0	0.0	41.0	0.0	41.0	22.3	4.2	0.0	43.5	14.4	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:	0.0	0.0	0.0	41.0	0.0	41.0	22.3	4.2	0.0	43.5	14.4	13.9
LOS by Move:	A	A	A	D	A	D	C+	A	A	D	B	B
HCM2kAvgQ:	0	0	0	12	0	12	3	86	0	5	38	8

Note: Queue reported is the distance per lane in feet.

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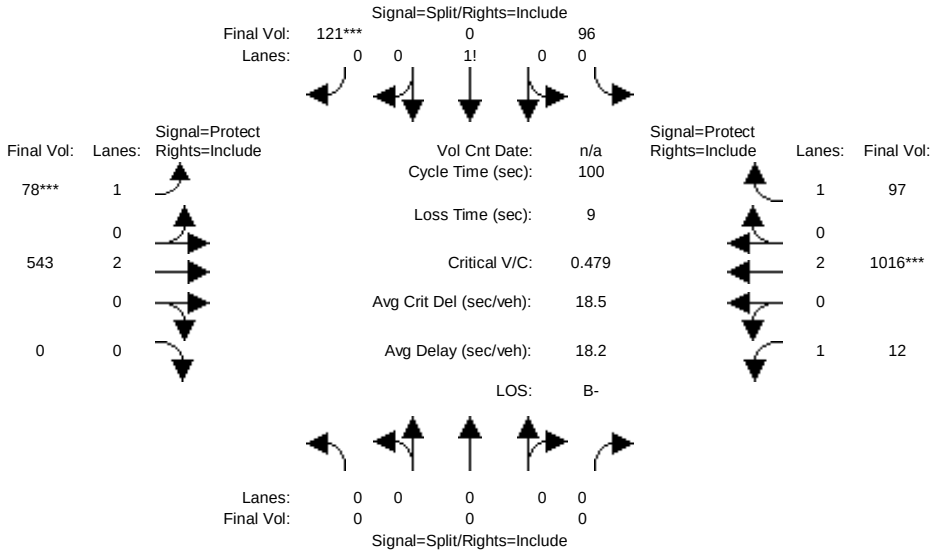
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pending PM

Intersection #67: Vallco Parkway/Perimeter Road



Street Name:	Perimeter Road						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	0	0	10	0	10	7	10	0	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	96	0	121	78	543	0	12	1016	97
Growth Adj:	1.00	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	96	0	121	78	543	0	12	1016	97
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	96	0	121	78	543	0	12	1016	97
User Adj:	1.00	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	96	0	121	78	543	0	12	1016	97
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	96	0	121	78	543	0	12	1016	97
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	96	0	121	78	543	0	12	1016	97
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	0.44	0.00	0.56	1.00	2.00	0.00	1.00	2.00	1.00
Final Sat.:	0	0	0	774	0	976	1750	3800	0	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.12	0.00	0.12	0.04	0.14	0.00	0.01	0.27	0.06
Crit Moves:						****	****				****	
Green Time:	0.0	0.0	0.0	25.9	0.0	25.9	9.3	43.7	0.0	21.4	55.8	55.8
Volume/Cap:	0.00	0.00	0.00	0.48	0.00	0.48	0.48	0.33	0.00	0.03	0.48	0.10
Uniform Del:	0.0	0.0	0.0	31.4	0.0	31.4	43.0	18.5	0.0	31.1	13.3	10.3
IncremntDel:	0.0	0.0	0.0	0.8	0.0	0.8	2.2	0.1	0.0	0.0	0.2	0.0
InitQueuDel:	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	1.00	1.00	1.00
Delay/Veh:	0.0	0.0	0.0	32.2	0.0	32.2	45.3	18.6	0.0	31.1	13.5	10.4
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	32.2	0.0	32.2	45.3	18.6	0.0	31.1	13.5	10.4
LOS by Move:	A	A	A	C-	A	C-	D	B-	A	C	B	B+
HCM2kAvgQ:	0	0	0	161	0	161	62	132	0	8	235	37

Note: Queue reported is the distance per lane in feet.

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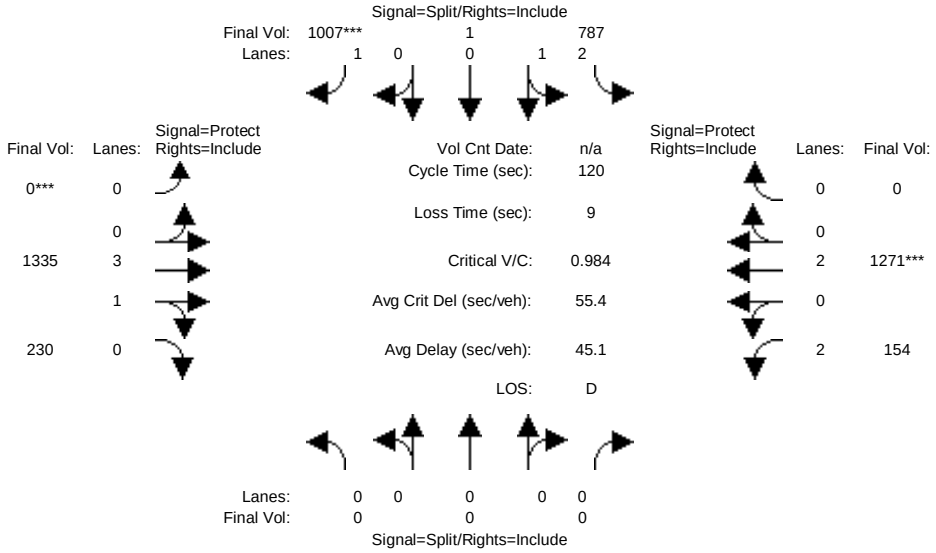
Traffix Output

Cumulative Conditions Plus Specific Plan

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #1: Stevens Creek Boulevard/SR 85 Ramps West



Street Name:	SR 85 Ramps West						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	627	1	1007	0	1308	230	154	1263	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	627	1	1007	0	1308	230	154	1263	0
Added Vol:	0	0	0	160	0	0	0	27	0	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	787	1	1007	0	1335	230	154	1271	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	0	0	787	1	1007	0	1335	230	154	1271	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	787	1	1007	0	1335	230	154	1271	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	787	1	1007	0	1335	230	154	1271	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.87	0.95	0.92	0.92	0.99	0.95	0.83	1.00	0.92
Lanes:	0.00	0.00	0.00	2.99	0.01	1.00	0.00	3.39	0.61	2.00	2.00	0.00
Final Sat.:	0	0	0	4944	6	1750	0	6396	1102	3150	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.16	0.16	0.58	0.00	0.21	0.21	0.05	0.33	0.00
Crit Moves:						****	****				****	
Green Time:	0.0	0.0	0.0	70.2	70.2	70.2	0.0	31.9	31.9	8.9	40.8	0.0
Volume/Cap:	0.00	0.00	0.00	0.27	0.27	0.98	0.00	0.79	0.79	0.66	0.98	0.00
Uniform Del:	0.0	0.0	0.0	12.3	12.3	24.3	0.0	40.9	40.9	54.1	39.3	0.0
IncremntDel:	0.0	0.0	0.0	0.2	0.2	24.5	0.0	3.2	3.2	13.6	21.4	0.0
InitQueuDel:	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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	0.0	0.0	0.0	12.5	12.5	48.8	0.0	44.1	44.1	67.7	60.7	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	12.5	12.5	48.8	0.0	44.1	44.1	67.7	60.7	0.0
LOS by Move:	A	A	A	B	B	D	A	D	D	E	E	A
HCM2kAvgQ:	0	0	0	134	134	1156	0	382	382	77	588	0

Note: Queue reported is the distance per lane in feet.

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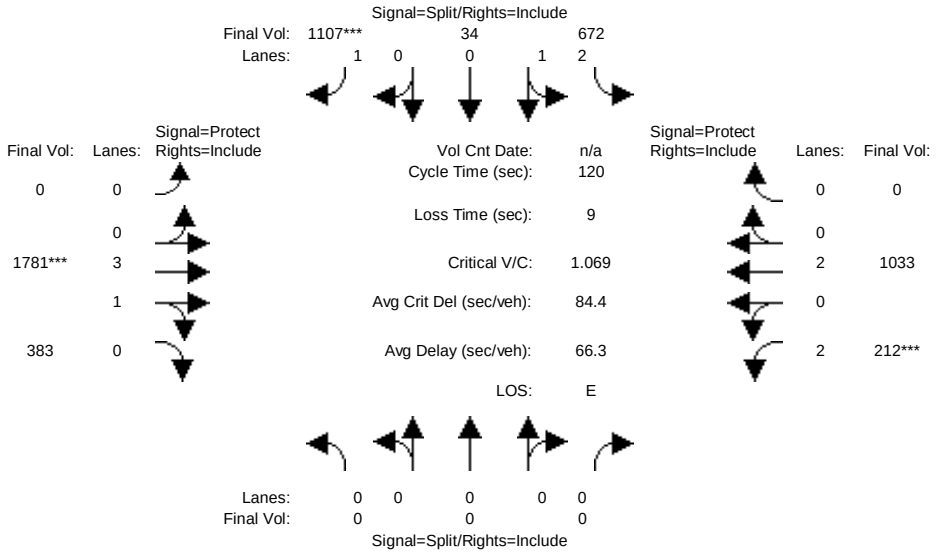
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #1: Stevens Creek Boulevard/SR 85 Ramps West



Street Name:	SR 85 Ramps West						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	0	0	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	584	34	1107	0	1766	383	212	1004	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	584	34	1107	0	1766	383	212	1004	0
Added Vol:	0	0	0	88	0	0	0	15	0	0	29	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	672	34	1107	0	1781	383	212	1033	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	0	0	672	34	1107	0	1781	383	212	1033	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	672	34	1107	0	1781	383	212	1033	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	672	34	1107	0	1781	383	212	1033	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.86	0.95	0.92	0.92	1.00	0.95	0.83	1.00	0.92
Lanes:	0.00	0.00	0.00	2.87	0.13	1.00	0.00	3.26	0.74	2.00	2.00	0.00
Final Sat.:	0	0	0	4710	238	1750	0	6170	1327	3150	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.14	0.14	0.63	0.00	0.29	0.29	0.07	0.27	0.00
Crit Moves:						****		****		****		
Green Time:	0.0	0.0	0.0	71.0	71.0	71.0	0.0	32.4	32.4	7.6	40.0	0.0
Volume/Cap:	0.00	0.00	0.00	0.24	0.24	1.07	0.00	1.07	1.07	1.07	0.82	0.00
Uniform Del:	0.0	0.0	0.0	11.7	11.7	24.5	0.0	43.8	43.8	56.2	36.7	0.0
IncremntDel:	0.0	0.0	0.0	0.2	0.2	48.2	0.0	41.3	41.3	83.3	5.9	0.0
InitQueuDel:	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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	0.0	0.0	0.0	11.8	11.8	72.7	0.0	85.1	85.1	139.5	42.5	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	11.8	11.8	72.7	0.0	85.1	85.1	139.5	42.5	0.0
LOS by Move:	A	A	A	B+	B+	E	A	F	F	F	D	A
HCM2kAvgQ:	0	0	0	115	115	1452	0	726	726	162	445	0

Note: Queue reported is the distance per lane in feet.

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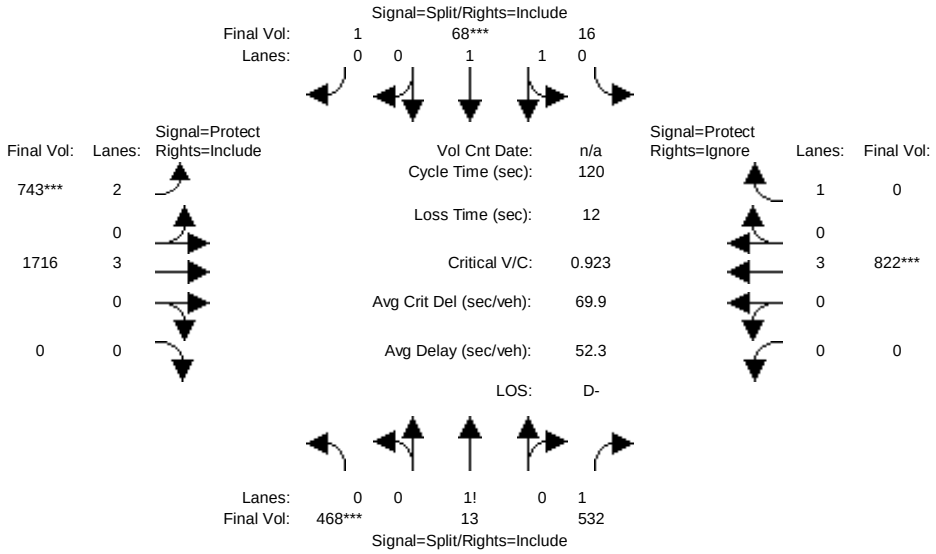
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #2: Stevens Creek Boulevard/SR 85 Ramps East



Street Name:	SR 85 Ramps East						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	0	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	468	13	532	16	68	1	743	1530	0	0	814	501
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	468	13	532	16	68	1	743	1530	0	0	814	501
Added Vol:	0	0	0	0	0	0	0	186	0	0	8	47
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	468	13	532	16	68	1	743	1716	0	0	822	548
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	0.00
PHF Volume:	468	13	532	16	68	1	743	1716	0	0	822	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	468	13	532	16	68	1	743	1716	0	0	822	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	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	468	13	532	16	68	1	743	1716	0	0	822	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.95	0.95	0.95	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	0.63	0.02	1.35	0.38	1.60	0.02	2.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	1096	30	2373	678	2880	42	3150	5700	0	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.43	0.43	0.22	0.02	0.02	0.02	0.24	0.30	0.00	0.00	0.14	0.00
Crit Moves:	****				****		****				****	
Green Time:	51.8	51.8	51.8	10.0	10.0	10.0	28.6	46.2	0.0	0.0	17.5	0.0
Volume/Cap:	0.99	0.99	0.52	0.28	0.28	0.28	0.99	0.78	0.00	0.00	0.99	0.00
Uniform Del:	33.8	33.8	25.0	51.6	51.6	51.6	45.5	32.5	0.0	0.0	51.1	0.0
IncremntDel:	25.4	25.4	1.0	2.4	2.4	2.4	30.1	2.9	0.0	0.0	28.5	0.0
InitQueuDel:	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	0.00	0.00	1.00	0.00
Delay/Veh:	59.2	59.2	25.9	54.0	54.0	54.0	75.6	35.4	0.0	0.0	79.6	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:	59.2	59.2	25.9	54.0	54.0	54.0	75.6	35.4	0.0	0.0	79.6	0.0
LOS by Move:	E+	E+	C	D-	D-	D-	E-	D+	A	A	E-	A
HCM2kAvgQ:	907	907	286	45	45	45	485	468	0	0	369	0

Note: Queue reported is the distance per lane in feet.

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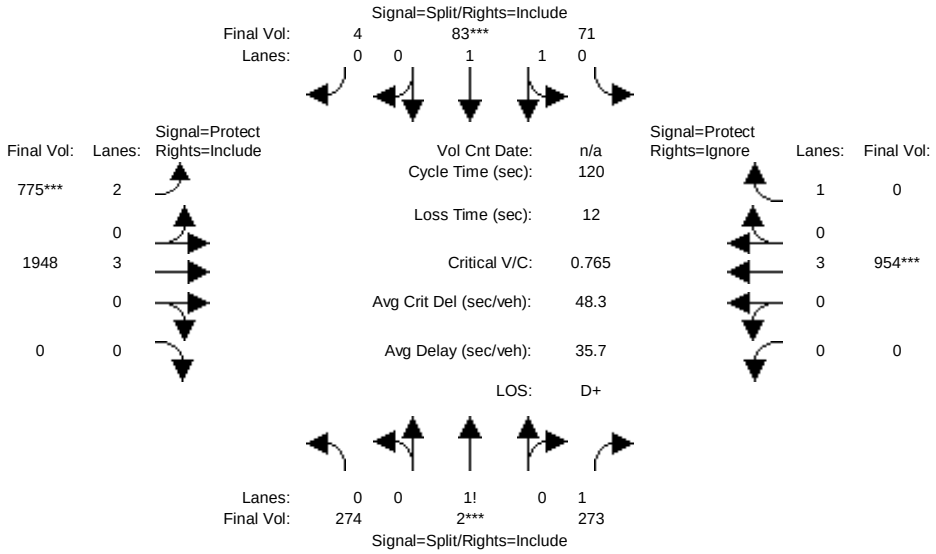
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #2: Stevens Creek Boulevard/SR 85 Ramps East



Street Name:	SR 85 Ramps East						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	0	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	274	2	273	71	83	4	775	1845	0	0	925	560
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	274	2	273	71	83	4	775	1845	0	0	925	560
Added Vol:	0	0	0	0	0	0	0	103	0	0	29	174
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	274	2	273	71	83	4	775	1948	0	0	954	734
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	0.00
PHF Volume:	274	2	273	71	83	4	775	1948	0	0	954	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	274	2	273	71	83	4	775	1948	0	0	954	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	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	274	2	273	71	83	4	775	1948	0	0	954	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.95	0.95	0.95	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	0.66	0.01	1.33	0.90	1.05	0.05	2.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	1184	9	2340	1618	1891	91	3150	5700	0	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.23	0.23	0.12	0.04	0.04	0.04	0.25	0.34	0.00	0.00	0.17	0.00
Crit Moves:		****			****		****				****	
Green Time:	35.2	35.2	35.2	10.0	10.0	10.0	37.4	62.8	0.0	0.0	25.4	0.0
Volume/Cap:	0.79	0.79	0.40	0.53	0.53	0.53	0.79	0.65	0.00	0.00	0.79	0.00
Uniform Del:	39.0	39.0	33.9	52.7	52.7	52.7	37.7	20.7	0.0	0.0	44.7	0.0
IncremntDel:	8.9	8.9	0.9	6.5	6.5	6.5	6.4	1.1	0.0	0.0	5.3	0.0
InitQueuDel:	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	0.00	0.00	1.00	0.00
Delay/Veh:	47.9	47.9	34.8	59.2	59.2	59.2	44.1	21.8	0.0	0.0	50.0	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:	47.9	47.9	34.8	59.2	59.2	59.2	44.1	21.8	0.0	0.0	50.0	0.0
LOS by Move:	D	D	C-	E+	E+	E+	D	C+	A	A	D	A
HCM2kAvgQ:	414	414	164	92	92	92	364	397	0	0	324	0

Note: Queue reported is the distance per lane in feet.

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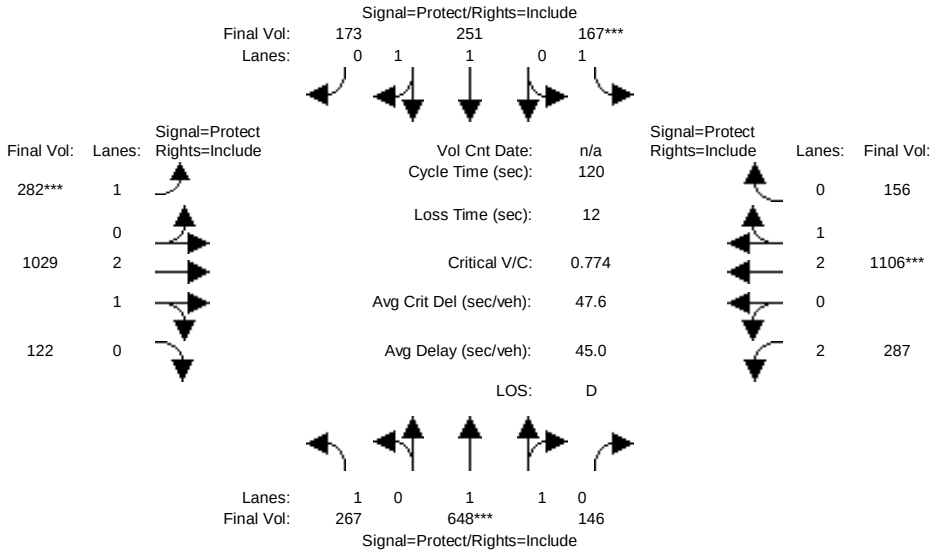
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #3: Stevens Creek Boulevard/Stelling Road



Street Name:	Stelling Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	267	648	133	154	251	173	282	843	122	283	1052	152
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	267	648	133	154	251	173	282	843	122	283	1052	152
Added Vol:	0	0	13	13	0	0	0	186	0	4	54	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	267	648	146	167	251	173	282	1029	122	287	1106	156
User Adj:	1.00	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:	267	648	146	167	251	173	282	1029	122	287	1106	156
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	267	648	146	167	251	173	282	1029	122	287	1106	156
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	267	648	146	167	251	173	282	1029	122	287	1106	156
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.99	0.95	0.92	0.99	0.95	0.83	0.99	0.95
Lanes:	1.00	1.62	0.38	1.00	1.16	0.84	1.00	2.67	0.33	2.00	2.62	0.38
Final Sat.:	1750	3019	680	1750	2189	1509	1750	5006	593	3150	4907	692
Capacity Analysis Module:												
Vol/Sat:	0.15	0.21	0.21	0.10	0.11	0.11	0.16	0.21	0.21	0.09	0.23	0.23
Crit Moves:		****		****			****				****	
Green Time:	27.4	33.3	33.3	14.8	20.6	20.6	25.0	41.5	41.5	18.4	34.9	34.9
Volume/Cap:	0.67	0.77	0.77	0.77	0.67	0.67	0.77	0.59	0.59	0.59	0.77	0.77
Uniform Del:	42.1	39.9	39.9	51.0	46.5	46.5	44.8	32.3	32.3	47.3	38.9	38.9
IncremntDel:	8.5	5.7	5.7	23.3	5.5	5.5	14.8	1.3	1.3	5.3	3.6	3.6
InitQueuDel:	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:	50.6	45.6	45.6	74.2	52.0	52.0	59.6	33.6	33.6	52.6	42.6	42.6
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:	50.6	45.6	45.6	74.2	52.0	52.0	59.6	33.6	33.6	52.6	42.6	42.6
LOS by Move:	D	D	D	E	D-	D-	E+	C-	C-	D-	D	D
HCM2kAvgQ:	265	384	384	209	214	214	310	303	303	168	399	399

Note: Queue reported is the distance per lane in feet.

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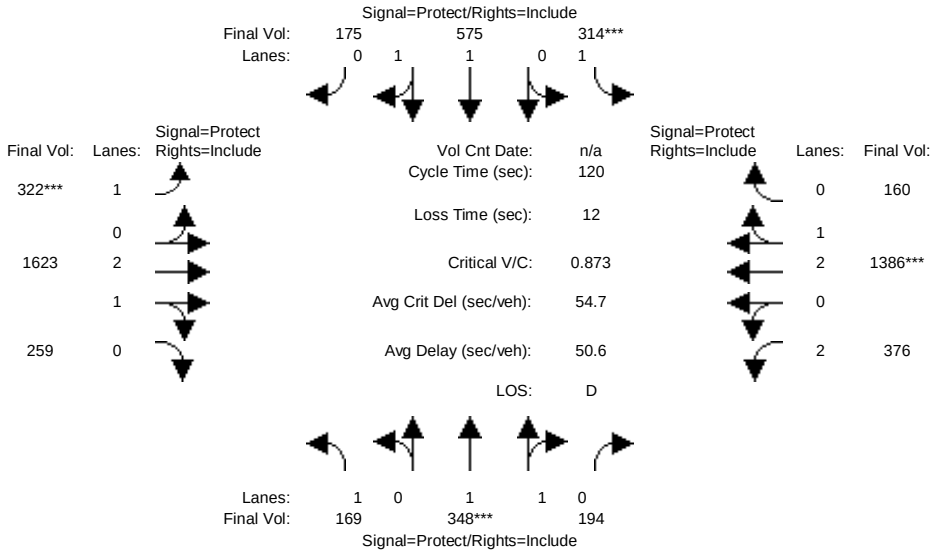
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #3: Stevens Creek Boulevard/Stelling Road



Street Name:	Stelling Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	169	348	187	307	575	175	322	1520	259	361	1183	145
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	169	348	187	307	575	175	322	1520	259	361	1183	145
Added Vol:	0	0	7	7	0	0	0	103	0	15	203	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	169	348	194	314	575	175	322	1623	259	376	1386	160
User Adj:	1.00	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:	169	348	194	314	575	175	322	1623	259	376	1386	160
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	348	194	314	575	175	322	1623	259	376	1386	160
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	169	348	194	314	575	175	322	1623	259	376	1386	160
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	0.98	0.95	0.92	0.99	0.95	0.83	0.99	0.95
Lanes:	1.00	1.26	0.74	1.00	1.52	0.48	1.00	2.57	0.43	2.00	2.68	0.32
Final Sat.:	1750	2375	1324	1750	2836	863	1750	4828	771	3150	5020	579
Capacity Analysis Module:												
Vol/Sat:	0.10	0.15	0.15	0.18	0.20	0.20	0.18	0.34	0.34	0.12	0.28	0.28
Crit Moves:		****		****			****				****	
Green Time:	14.4	20.1	20.1	24.7	30.3	30.3	25.3	46.6	46.6	16.6	37.9	37.9
Volume/Cap:	0.80	0.87	0.87	0.87	0.80	0.80	0.87	0.86	0.86	0.86	0.87	0.87
Uniform Del:	51.4	48.7	48.7	46.2	42.0	42.0	45.8	33.8	33.8	50.6	38.8	38.8
IncremntDel:	26.6	15.7	15.7	24.2	7.2	7.2	23.8	4.9	4.9	19.9	6.3	6.3
InitQueuDel:	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:	78.0	64.4	64.4	70.4	49.2	49.2	69.6	38.7	38.7	70.5	45.1	45.1
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:	78.0	64.4	64.4	70.4	49.2	49.2	69.6	38.7	38.7	70.5	45.1	45.1
LOS by Move:	E-	E	E	E	D	D	E	D+	D+	E	D	D
HCM2kAvgQ:	217	324	324	378	381	381	386	606	606	274	529	529

Note: Queue reported is the distance per lane in feet.

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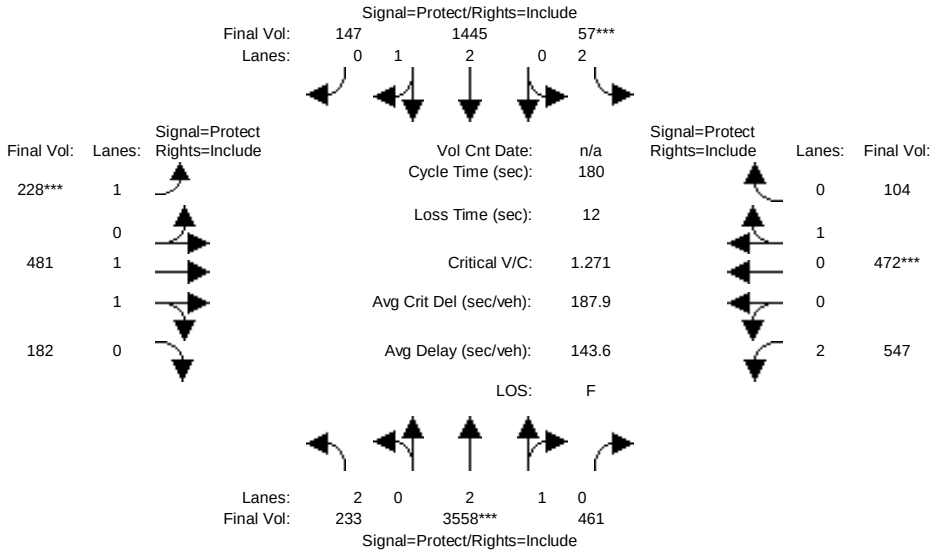
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #4: Sunnyvale Saratoga Road/Remington Drive



Street Name:	Sunnyvale Saratoga Road						Remington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	231	3546	459	57	1405	147	228	481	175	540	472	104
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	231	3546	459	57	1405	147	228	481	175	540	472	104
Added Vol:	2	12	2	0	40	0	0	0	7	7	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	233	3558	461	57	1445	147	228	481	182	547	472	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:	233	3558	461	57	1445	147	228	481	182	547	472	104
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	233	3558	461	57	1445	147	228	481	182	547	472	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:	233	3558	461	57	1445	147	228	481	182	547	472	104
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	0.99	0.95	0.92	0.98	0.95	0.83	0.95	0.95
Lanes:	2.00	2.64	0.36	2.00	2.71	0.29	1.00	1.44	0.56	2.00	0.82	0.18
Final Sat.:	3150	4957	642	3150	5082	517	1750	2684	1015	3150	1475	325
Capacity Analysis Module:												
Vol/Sat:	0.07	0.72	0.72	0.02	0.28	0.28	0.13	0.18	0.18	0.17	0.32	0.32
Crit Moves:		****			****			****			****	
Green Time:	21.9	98.9	98.9	7.0	84.1	84.1	18.0	31.5	31.5	30.5	44.1	44.1
Volume/Cap:	0.61	1.31	1.31	0.47	0.61	0.61	1.31	1.02	1.02	1.02	1.31	1.31
Uniform Del:	75.0	40.5	40.5	84.7	35.7	35.7	81.0	74.2	74.2	74.7	67.9	67.9
IncremntDel:	7.0	140	140.1	12.2	1.1	1.1	172.7	41.4	41.4	45.0	153	153.3
InitQueuDel:	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:	82.0	181	180.7	96.8	36.8	36.8	253.8	116	115.7	119.7	221	221.3
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:	82.0	181	180.7	96.8	36.8	36.8	253.8	116	115.7	119.7	221	221.3
LOS by Move:	F	F	F	F	D+	D+	F	F	F	F	F	F
HCM2kAvgQ:	201	2800	2800	61	540	540	566	601	601	585	1294	1294

Note: Queue reported is the distance per lane in feet.

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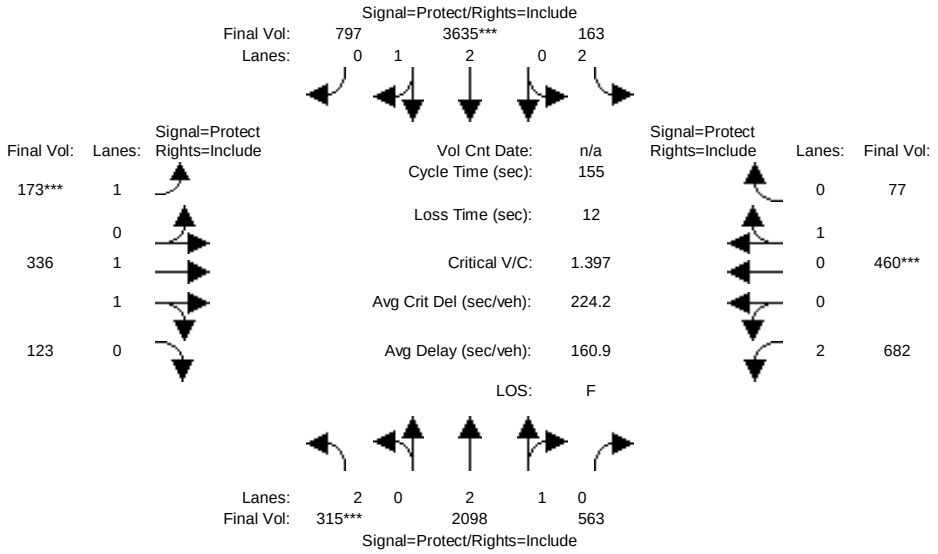
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #4: Sunnyvale Saratoga Road/Remington Drive



Street Name:	Sunnyvale Saratoga Road						Remington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	308	2054	556	163	3613	797	173	336	119	678	460	77
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	308	2054	556	163	3613	797	173	336	119	678	460	77
Added Vol:	7	44	7	0	22	0	0	0	4	4	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	315	2098	563	163	3635	797	173	336	123	682	460	77
User Adj:	1.00	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:	315	2098	563	163	3635	797	173	336	123	682	460	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	315	2098	563	163	3635	797	173	336	123	682	460	77
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	315	2098	563	163	3635	797	173	336	123	682	460	77
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	0.99	0.95	0.92	0.98	0.95	0.83	0.95	0.95
Lanes:	2.00	2.34	0.66	2.00	2.44	0.56	1.00	1.45	0.55	2.00	0.86	0.14
Final Sat.:	3150	4414	1184	3150	4592	1007	1750	2708	991	3150	1542	258
Capacity Analysis Module:												
Vol/Sat:	0.10	0.48	0.48	0.05	0.79	0.79	0.10	0.12	0.12	0.22	0.30	0.30
Crit Moves:	****				****		****				****	
Green Time:	11.1	89.2	89.2	9.7	87.8	87.8	11.0	16.1	16.1	28.0	33.1	33.1
Volume/Cap:	1.40	0.83	0.83	0.83	1.40	1.40	1.40	1.20	1.20	1.20	1.40	1.40
Uniform Del:	72.0	26.6	26.6	71.8	33.6	33.6	72.0	69.5	69.5	63.5	60.9	60.9
IncremntDel:	203.3	2.6	2.6	31.0	181	180.6	220.2	112	111.7	105.3	194	193.8
InitQueuDel:	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:	275.3	29.2	29.2	102.8	214	214.2	292.2	181	181.2	168.8	255	254.8
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:	275.3	29.2	29.2	102.8	214	214.2	292.2	181	181.2	168.8	255	254.8
LOS by Move:	F	C	C	F	F	F	F	F	F	F	F	F
HCM2kAvgQ:	437	888	888	166	3038	3038	433	463	463	757	1190	1190

Note: Queue reported is the distance per lane in feet.

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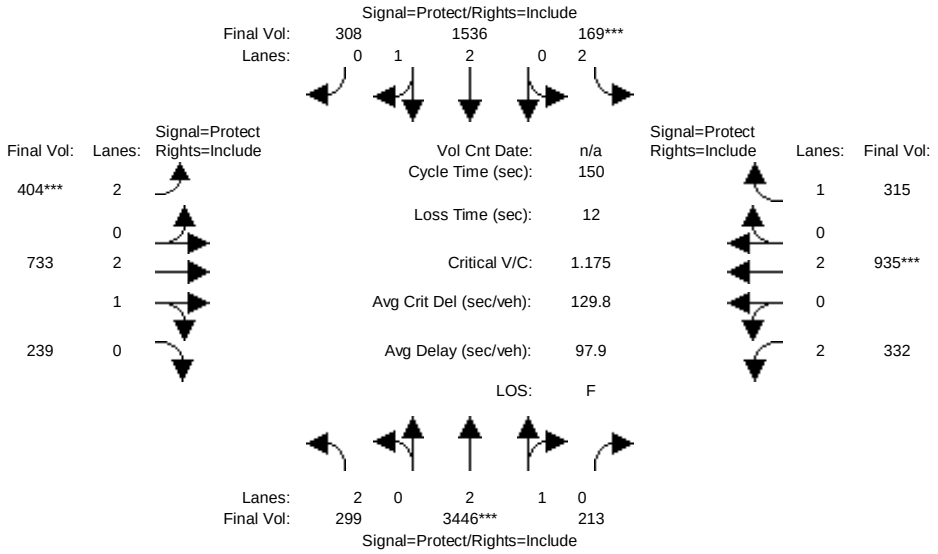
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #5: Sunnyvale Saratoga Road/Fremont Avenue



Street Name:	Sunnyvale Saratoga Road						Fremont Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	295	3434	213	156	1496	308	404	733	226	332	935	311
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	295	3434	213	156	1496	308	404	733	226	332	935	311
Added Vol:	4	12	0	13	40	0	0	0	13	0	0	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	299	3446	213	169	1536	308	404	733	239	332	935	315
User Adj:	1.00	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:	299	3446	213	169	1536	308	404	733	239	332	935	315
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	299	3446	213	169	1536	308	404	733	239	332	935	315
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	299	3446	213	169	1536	308	404	733	239	332	935	315
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.98	0.95	0.83	0.99	0.95	0.83	0.99	0.95	0.83	1.00	0.92
Lanes:	2.00	2.82	0.18	2.00	2.48	0.52	2.00	2.24	0.76	2.00	2.00	1.00
Final Sat.:	3150	5274	326	3150	4663	935	3150	4221	1376	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.65	0.65	0.05	0.33	0.33	0.13	0.17	0.17	0.11	0.25	0.18
Crit Moves:		****		****			****				****	
Green Time:	20.2	83.3	83.3	7.0	70.1	70.1	16.3	29.7	29.7	18.0	31.4	31.4
Volume/Cap:	0.70	1.18	1.18	1.15	0.70	0.70	1.18	0.88	0.88	0.88	1.18	0.86
Uniform Del:	62.1	33.4	33.4	71.5	31.7	31.7	66.8	58.4	58.4	64.9	59.3	57.2
IncremntDel:	9.5	83.2	83.2	120.1	1.6	1.6	105.8	9.9	9.9	23.8	92.5	22.4
InitQueuDel:	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:	71.5	117	116.6	191.6	33.4	33.4	172.6	68.2	68.2	88.7	152	79.6
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:	71.5	117	116.6	191.6	33.4	33.4	172.6	68.2	68.2	88.7	152	79.6
LOS by Move:	E	F	F	F	C-	C-	F	E	E	F	F	E-
HCM2kAvgQ:	229	2011	2011	219	574	574	460	437	437	294	817	442

Note: Queue reported is the distance per lane in feet.

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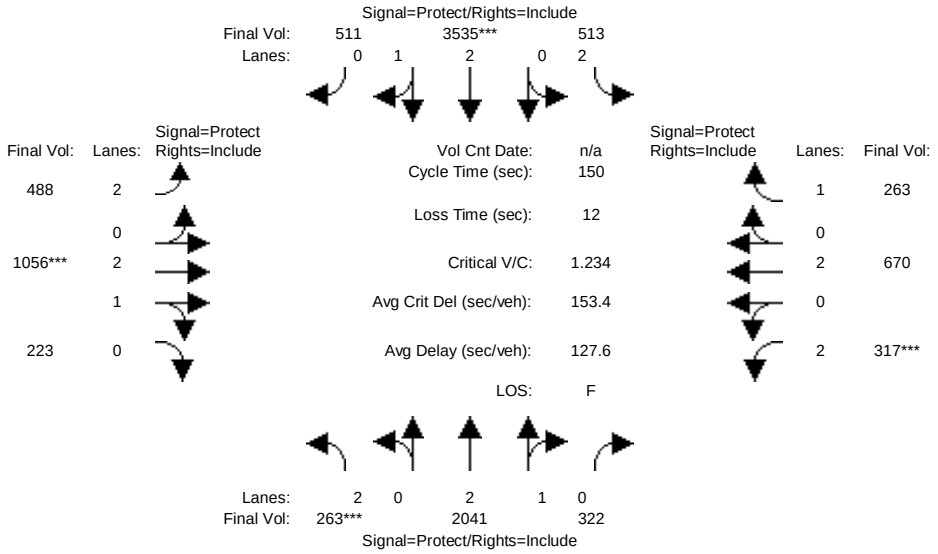
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #5: Sunnyvale Saratoga Road/Fremont Avenue



Street Name:	Sunnyvale Saratoga Road						Fremont Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	248	1997	322	506	3513	511	488	1056	216	317	670	248
Growth Adj:	1.00	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	1997	322	506	3513	511	488	1056	216	317	670	248
Added Vol:	15	44	0	7	22	0	0	0	7	0	0	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	263	2041	322	513	3535	511	488	1056	223	317	670	263
User Adj:	1.00	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:	263	2041	322	513	3535	511	488	1056	223	317	670	263
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	263	2041	322	513	3535	511	488	1056	223	317	670	263
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	263	2041	322	513	3535	511	488	1056	223	317	670	263
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	0.99	0.95	0.83	0.99	0.95	0.83	1.00	0.92
Lanes:	2.00	2.58	0.42	2.00	2.61	0.39	2.00	2.46	0.54	2.00	2.00	1.00
Final Sat.:	3150	4836	763	3150	4892	707	3150	4622	976	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.42	0.42	0.16	0.72	0.72	0.15	0.23	0.23	0.10	0.18	0.15
Crit Moves:	****				****			****			****	
Green Time:	10.1	70.7	70.7	27.3	87.8	87.8	18.7	27.8	27.8	12.2	21.3	21.3
Volume/Cap:	1.23	0.90	0.90	0.90	1.23	1.23	1.24	1.23	1.23	1.23	1.24	1.06
Uniform Del:	69.9	36.3	36.3	60.0	31.1	31.1	65.6	61.1	61.1	68.9	64.4	64.4
IncremntDel:	139.0	5.2	5.2	19.1	108	108.1	128.8	114	113.7	134.3	124	73.4
InitQueuDel:	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:	208.9	41.5	41.5	79.1	139	139.2	194.4	175	174.9	203.1	188	137.8
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:	208.9	41.5	41.5	79.1	139	139.2	194.4	175	174.9	203.1	188	137.8
LOS by Move:	F	D	D	E-	F	F	F	F	F	F	F	F
HCM2kAvgQ:	333	908	908	424	2359	2359	572	805	805	391	642	474

Note: Queue reported is the distance per lane in feet.

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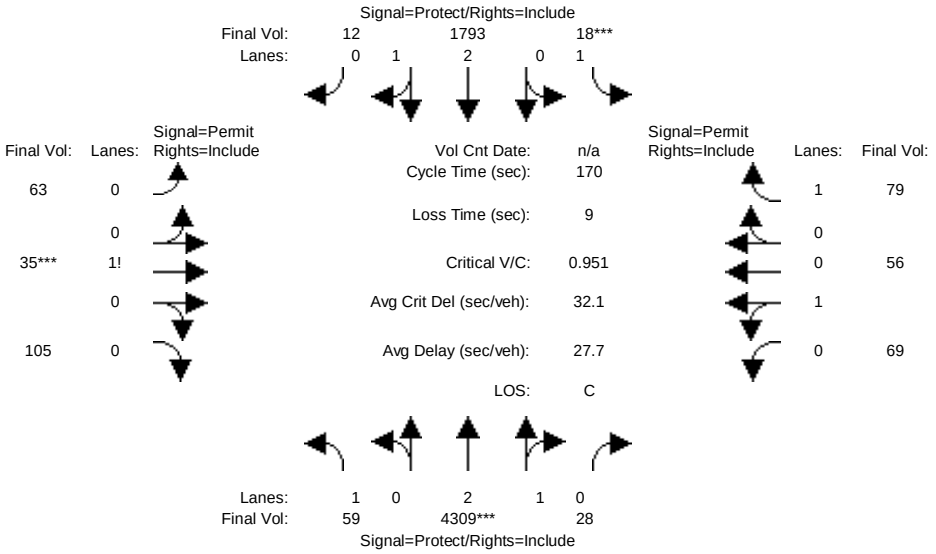
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #6: Sunnyvale Saratoga Road/Cheyenne Drive



Street Name:	Sunnyvale Saratoga Road						Cheyenne Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	59	4293	28	18	1740	12	63	35	105	69	56	79
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	59	4293	28	18	1740	12	63	35	105	69	56	79
Added Vol:	0	16	0	0	53	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	59	4309	28	18	1793	12	63	35	105	69	56	79
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	59	4309	28	18	1793	12	63	35	105	69	56	79
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	4309	28	18	1793	12	63	35	105	69	56	79
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	59	4309	28	18	1793	12	63	35	105	69	56	79
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.92	0.92	0.95	0.95	0.92
Lanes:	1.00	2.98	0.02	1.00	2.98	0.02	0.31	0.17	0.52	0.55	0.45	1.00
Final Sat.:	1750	5564	36	1750	5563	37	543	302	905	994	806	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.77	0.77	0.01	0.32	0.32	0.12	0.12	0.12	0.07	0.07	0.05
Crit Moves:		****		****				****				
Green Time:	16.0	134	133.9	7.0	125	125.0	20.1	20.1	20.1	20.1	20.1	20.1
Volume/Cap:	0.36	0.98	0.98	0.25	0.44	0.44	0.98	0.98	0.98	0.59	0.59	0.38
Uniform Del:	72.2	17.0	17.0	79.0	8.8	8.8	74.8	74.8	74.8	71.1	71.1	69.2
IncremntDel:	6.0	10.1	10.1	8.1	0.3	0.3	58.4	58.4	58.4	11.4	11.4	5.3
InitQueuDel:	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:	78.2	27.1	27.1	87.1	9.1	9.1	133.2	133	133.2	82.5	82.5	74.5
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:	78.2	27.1	27.1	87.1	9.1	9.1	133.2	133	133.2	82.5	82.5	74.5
LOS by Move:	E-	C	C	F	A	A	F	F	F	F	F	E
HCM2kAvgQ:	84	1936	1936	30	302	302	385	385	385	180	180	109

Note: Queue reported is the distance per lane in feet.

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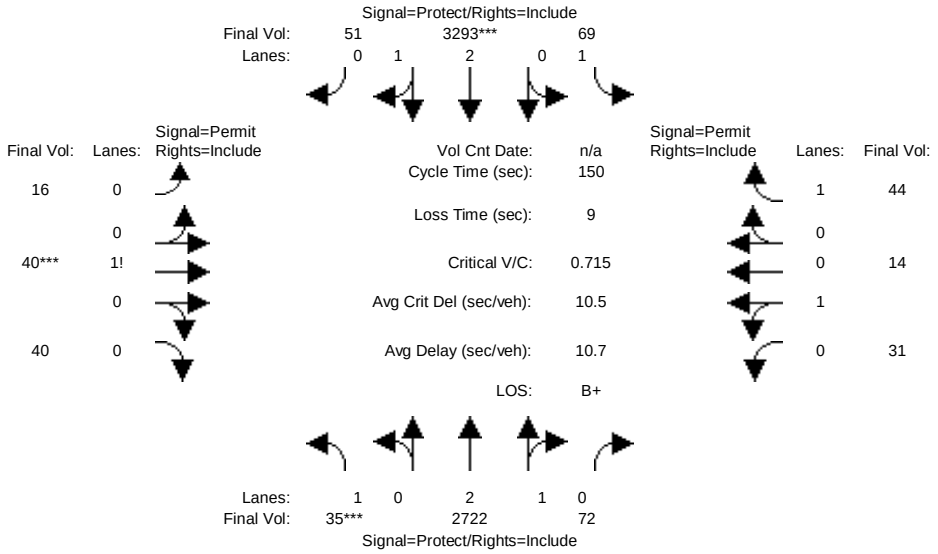
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #6: Sunnyvale Saratoga Road/Cheyenne Drive



Street Name:	Sunnyvale Saratoga Road						Cheyenne Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	35	2664	72	69	3264	51	16	40	40	31	14	44
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	35	2664	72	69	3264	51	16	40	40	31	14	44
Added Vol:	0	58	0	0	29	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	35	2722	72	69	3293	51	16	40	40	31	14	44
User Adj:	1.00	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	2722	72	69	3293	51	16	40	40	31	14	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	2722	72	69	3293	51	16	40	40	31	14	44
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	2722	72	69	3293	51	16	40	40	31	14	44
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.92	0.92	0.95	0.95	0.92
Lanes:	1.00	2.92	0.08	1.00	2.95	0.05	0.16	0.42	0.42	0.69	0.31	1.00
Final Sat.:	1750	5455	144	1750	5514	85	292	729	729	1240	560	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.50	0.50	0.04	0.60	0.60	0.05	0.05	0.05	0.03	0.03	0.03
Crit Moves:	****				****			****				
Green Time:	7.0	119	118.6	11.1	123	122.7	11.3	11.3	11.3	11.3	11.3	11.3
Volume/Cap:	0.43	0.63	0.63	0.53	0.73	0.73	0.73	0.73	0.73	0.33	0.33	0.33
Uniform Del:	69.6	6.5	6.5	67.0	6.2	6.2	67.9	67.9	67.9	65.8	65.8	65.8
IncremntDel:	15.6	0.7	0.7	14.8	1.1	1.1	29.7	29.7	29.7	6.5	6.5	6.7
InitQueuDel:	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:	85.1	7.2	7.2	81.8	7.2	7.2	97.6	97.6	97.6	72.3	72.3	72.5
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:	85.1	7.2	7.2	81.8	7.2	7.2	97.6	97.6	97.6	72.3	72.3	72.5
LOS by Move:	F	A	A	F	A	A	F	F	F	E	E	E
HCM2kAvgQ:	55	454	454	101	598	598	154	154	154	59	59	59

Note: Queue reported is the distance per lane in feet.

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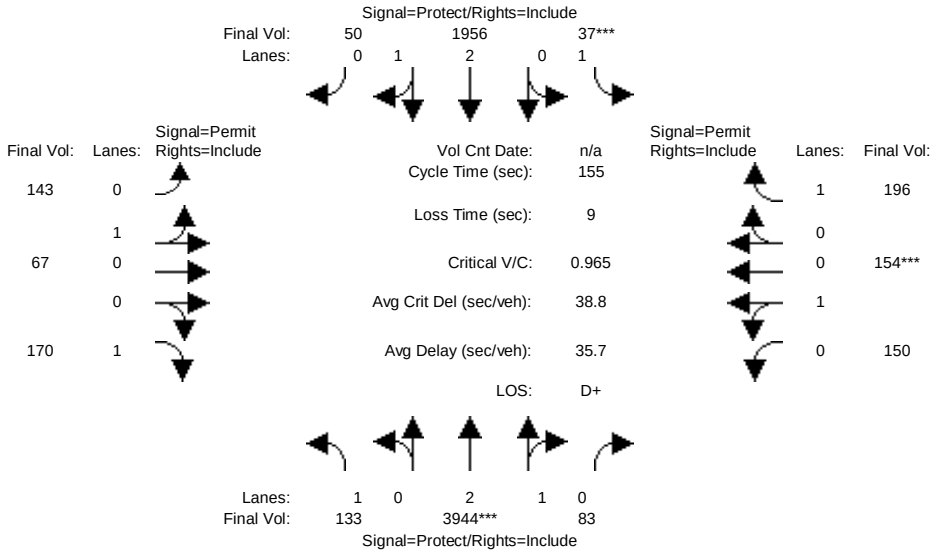
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #7: Sunnyvale Saratoga Road/Alberta Avenue



Street Name:	Sunnyvale Saratoga Road						Alberta Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	133	3928	83	37	1903	50	143	67	170	150	154	196
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	133	3928	83	37	1903	50	143	67	170	150	154	196
Added Vol:	0	16	0	0	53	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	133	3944	83	37	1956	50	143	67	170	150	154	196
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	133	3944	83	37	1956	50	143	67	170	150	154	196
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	133	3944	83	37	1956	50	143	67	170	150	154	196
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	133	3944	83	37	1956	50	143	67	170	150	154	196
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.94	0.06	1.00	2.92	0.08	0.68	0.32	1.00	0.49	0.51	1.00
Final Sat.:	1750	5484	115	1750	5460	140	1226	574	1750	888	912	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.72	0.72	0.02	0.36	0.36	0.12	0.12	0.10	0.17	0.17	0.11
Crit Moves:		****		****							****	
Green Time:	20.9	113	112.6	7.0	98.6	98.6	26.4	26.4	26.4	26.4	26.4	26.4
Volume/Cap:	0.56	0.99	0.99	0.47	0.56	0.56	0.68	0.68	0.57	0.99	0.99	0.66
Uniform Del:	62.8	20.7	20.7	72.2	16.0	16.0	60.4	60.4	59.1	64.2	64.2	60.0
IncremntDel:	9.4	12.0	12.0	18.6	0.6	0.6	11.7	11.7	7.7	49.0	49.0	10.8
InitQueuDel:	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:	72.1	32.7	32.7	90.8	16.6	16.6	72.1	72.1	66.7	113.1	113	70.8
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:	72.1	32.7	32.7	90.8	16.6	16.6	72.1	72.1	66.7	113.1	113	70.8
LOS by Move:	E	C-	C-	F	B	B	E	E	E	F	F	E
HCM2kAvgQ:	175	1740	1740	62	447	447	271	271	213	498	498	257

Note: Queue reported is the distance per lane in feet.

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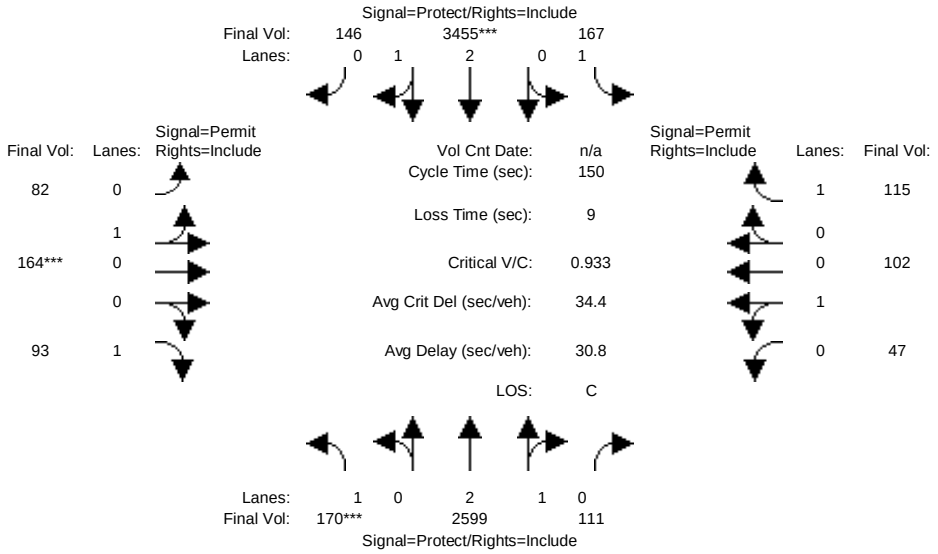
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #7: Sunnyvale Saratoga Road/Alberta Avenue



Street Name:	Sunnyvale Saratoga Road						Alberta Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	170	2541	111	167	3426	146	82	164	93	47	102	115
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	170	2541	111	167	3426	146	82	164	93	47	102	115
Added Vol:	0	58	0	0	29	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	170	2599	111	167	3455	146	82	164	93	47	102	115
User Adj:	1.00	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:	170	2599	111	167	3455	146	82	164	93	47	102	115
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	170	2599	111	167	3455	146	82	164	93	47	102	115
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	170	2599	111	167	3455	146	82	164	93	47	102	115
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.87	0.13	1.00	2.87	0.13	0.33	0.67	1.00	0.32	0.68	1.00
Final Sat.:	1750	5370	229	1750	5373	227	600	1200	1750	568	1232	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.48	0.48	0.10	0.64	0.64	0.14	0.14	0.05	0.08	0.08	0.07
Crit Moves:	****				****			****				
Green Time:	15.6	99.4	99.4	19.6	103	103.4	22.0	22.0	22.0	22.0	22.0	22.0
Volume/Cap:	0.93	0.73	0.73	0.73	0.93	0.93	0.93	0.93	0.36	0.57	0.57	0.45
Uniform Del:	66.7	16.5	16.5	62.7	20.3	20.3	63.3	63.3	57.7	59.6	59.6	58.5
IncremntDel:	51.0	1.3	1.3	18.5	5.5	5.5	40.5	40.5	3.9	8.5	8.5	5.6
InitQueuDel:	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:	117.7	17.8	17.8	81.1	25.8	25.8	103.8	104	61.6	68.1	68.1	64.1
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:	117.7	17.8	17.8	81.1	25.8	25.8	103.8	104	61.6	68.1	68.1	64.1
LOS by Move:	F	B	B	F	C	C	F	F	E	E	E	E
HCM2kAvgQ:	292	690	690	235	1308	1308	384	384	109	183	183	138

Note: Queue reported is the distance per lane in feet.

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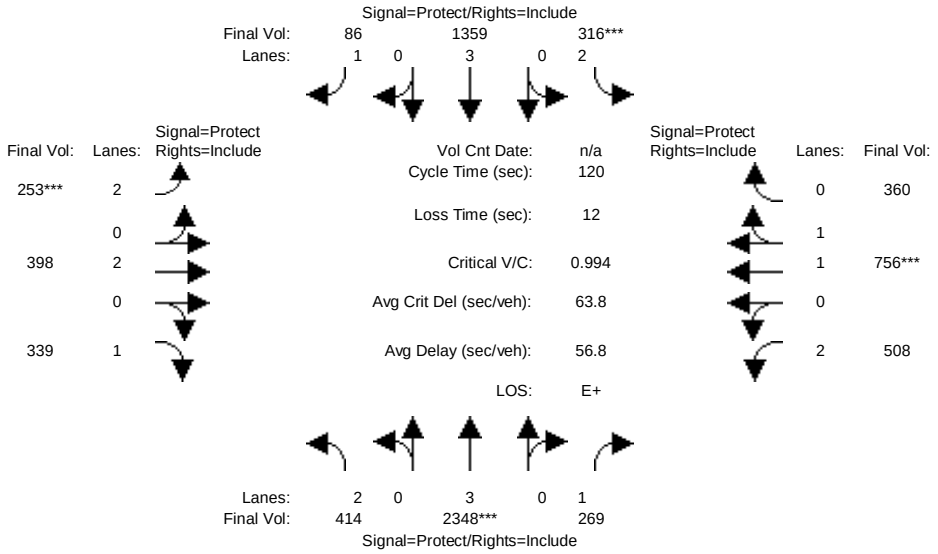
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #8: De Anza Boulevard/Homestead Road



Street Name:	De Anza Boulevard						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	410	2344	269	276	1346	86	253	385	326	508	752	348
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	410	2344	269	276	1346	86	253	385	326	508	752	348
Added Vol:	4	4	0	40	13	0	0	13	13	0	4	12
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	414	2348	269	316	1359	86	253	398	339	508	756	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:	414	2348	269	316	1359	86	253	398	339	508	756	360
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	414	2348	269	316	1359	86	253	398	339	508	756	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:	414	2348	269	316	1359	86	253	398	339	508	756	360
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	1.34	0.66
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	2506	1193
Capacity Analysis Module:												
Vol/Sat:	0.13	0.41	0.15	0.10	0.24	0.05	0.08	0.10	0.19	0.16	0.30	0.30
Crit Moves:		****			****			****			****	
Green Time:	22.0	49.7	49.7	12.1	39.9	39.9	9.7	25.2	25.2	21.0	36.4	36.4
Volume/Cap:	0.72	0.99	0.37	0.99	0.72	0.15	0.99	0.50	0.92	0.92	0.99	0.99
Uniform Del:	46.1	35.0	24.3	53.9	35.1	28.1	55.1	41.8	46.5	48.7	41.7	41.7
IncremntDel:	7.5	17.1	1.5	48.9	2.4	0.5	54.8	2.2	31.1	23.4	25.4	25.4
InitQueuDel:	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:	53.6	52.1	25.8	102.8	37.5	28.7	109.9	44.1	77.5	72.2	67.0	67.0
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:	53.6	52.1	25.8	102.8	37.5	28.7	109.9	44.1	77.5	72.2	67.0	67.0
LOS by Move:	D-	D-	C	F	D+	C	F	D	E-	E	E	E
HCM2kAvgQ:	250	889	183	279	388	59	235	170	429	371	682	682

Note: Queue reported is the distance per lane in feet.

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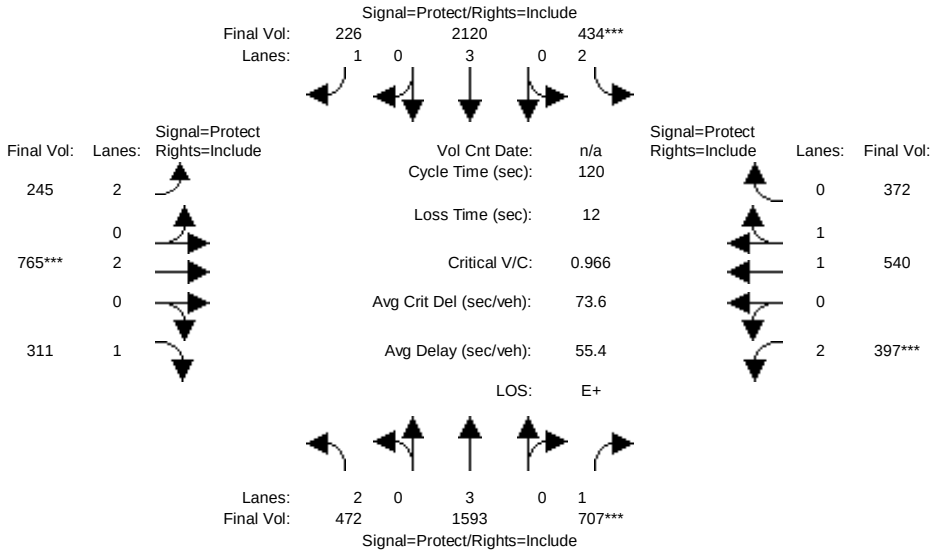
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #8: De Anza Boulevard/Homestead Road



Street Name:	De Anza Boulevard						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	457	1578	707	412	2113	226	245	758	304	397	525	328
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	457	1578	707	412	2113	226	245	758	304	397	525	328
Added Vol:	15	15	0	22	7	0	0	7	7	0	15	44
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	472	1593	707	434	2120	226	245	765	311	397	540	372
User Adj:	1.00	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:	472	1593	707	434	2120	226	245	765	311	397	540	372
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	472	1593	707	434	2120	226	245	765	311	397	540	372
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	472	1593	707	434	2120	226	245	765	311	397	540	372
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	1.16	0.84
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	2190	1508
Capacity Analysis Module:												
Vol/Sat:	0.15	0.28	0.40	0.14	0.37	0.13	0.08	0.20	0.18	0.13	0.25	0.25
Crit Moves:			****	****				****		****		
Green Time:	19.3	50.2	50.2	17.1	48.0	48.0	9.8	25.0	25.0	15.7	30.9	30.9
Volume/Cap:	0.93	0.67	0.97	0.97	0.93	0.32	0.96	0.97	0.85	0.97	0.96	0.96
Uniform Del:	49.7	28.2	34.1	51.1	34.4	24.8	54.9	47.1	45.7	51.9	43.9	43.9
IncremntDel:	25.9	1.5	25.9	34.7	8.3	1.2	46.2	24.6	21.5	36.6	20.4	20.4
InitQueuDel:	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:	75.5	29.7	59.9	85.9	42.7	26.0	101.1	71.7	67.2	88.5	64.3	64.3
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:	75.5	29.7	59.9	85.9	42.7	26.0	101.1	71.7	67.2	88.5	64.3	64.3
LOS by Move:	E-	C	E+	F	D	C	F	E	E	F	E	E
HCM2kAvgQ:	353	405	830	346	729	153	220	469	366	323	546	546

Note: Queue reported is the distance per lane in feet.

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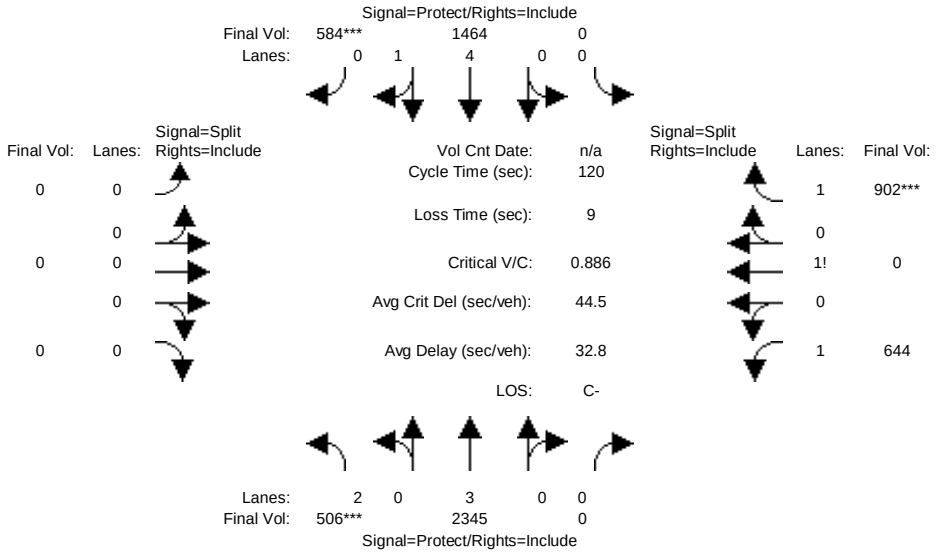
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #9: De Anza Boulevard/I-280 Ramps North



Street Name:	De Anza Boulevard						I-280 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	480	2337	0	0	1437	584	0	0	0	644	0	902
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	480	2337	0	0	1437	584	0	0	0	644	0	902
Added Vol:	26	8	0	0	27	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	506	2345	0	0	1464	584	0	0	0	644	0	902
User Adj:	1.00	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:	506	2345	0	0	1464	584	0	0	0	644	0	902
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	506	2345	0	0	1464	584	0	0	0	644	0	902
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	506	2345	0	0	1464	584	0	0	0	644	0	902
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	0.00	0.00	4.00	1.00	0.00	0.00	0.00	1.42	0.00	1.58
Final Sat.:	3150	5700	0	0	7600	1750	0	0	0	2479	0	2771
Capacity Analysis Module:												
Vol/Sat:	0.16	0.41	0.00	0.00	0.19	0.33	0.00	0.00	0.00	0.26	0.00	0.33
Crit Moves:	****					****						****
Green Time:	21.7	66.9	0.0	0.0	45.2	45.2	0.0	0.0	0.0	44.1	0.0	44.1
Volume/Cap:	0.89	0.74	0.00	0.00	0.51	0.89	0.00	0.00	0.00	0.71	0.00	0.89
Uniform Del:	47.9	19.9	0.0	0.0	28.9	35.0	0.0	0.0	0.0	32.5	0.0	35.6
IncremntDel:	18.1	1.6	0.0	0.0	0.5	5.5	0.0	0.0	0.0	2.0	0.0	7.1
InitQueuDel:	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	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	66.1	21.5	0.0	0.0	29.4	40.5	0.0	0.0	0.0	34.4	0.0	42.7
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:	66.1	21.5	0.0	0.0	29.4	40.5	0.0	0.0	0.0	34.4	0.0	42.7
LOS by Move:	E	C+	A	A	C	D	A	A	A	C-	A	D
HCM2kAvgQ:	279	519	0	0	261	624	0	0	0	407	0	612

Note: Queue reported is the distance per lane in feet.

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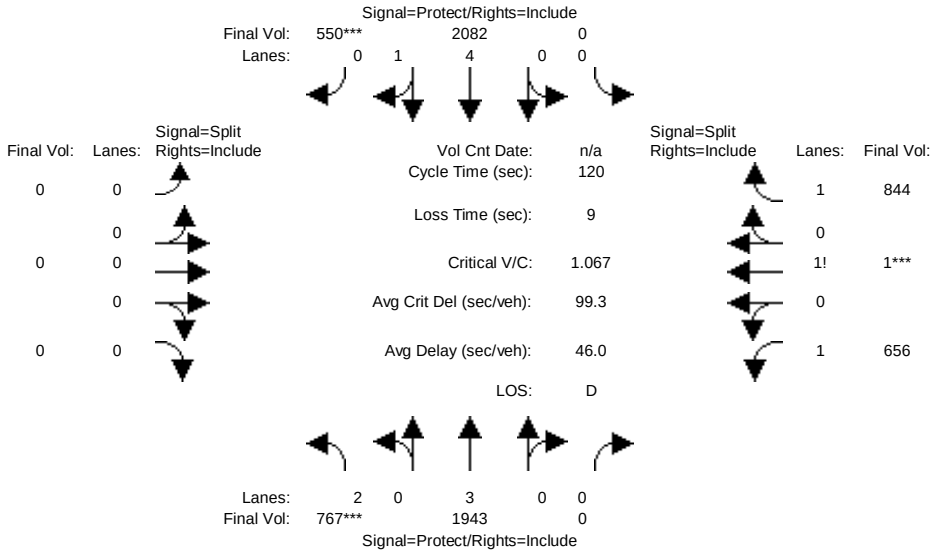
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #9: De Anza Boulevard/I-280 Ramps North



Street Name:	De Anza Boulevard						I-280 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	32	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	669	1914	0	0	2067	550	0	0	0	656	1	844
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	669	1914	0	0	2067	550	0	0	0	656	1	844
Added Vol:	98	29	0	0	15	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	767	1943	0	0	2082	550	0	0	0	656	1	844
User Adj:	1.00	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:	767	1943	0	0	2082	550	0	0	0	656	1	844
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	767	1943	0	0	2082	550	0	0	0	656	1	844
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	767	1943	0	0	2082	550	0	0	0	656	1	844
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	2.00	3.00	0.00	0.00	4.00	1.00	0.00	0.00	0.00	1.43	0.01	1.56
Final Sat.:	3150	5700	0	0	7600	1750	0	0	0	2514	2	2733
Capacity Analysis Module:												
Vol/Sat:	0.24	0.34	0.00	0.00	0.27	0.31	0.00	0.00	0.00	0.26	0.43	0.31
Crit Moves:	****					****					****	
Green Time:	32.0	65.4	0.0	0.0	33.4	33.4	0.0	0.0	0.0	45.6	45.6	45.6
Volume/Cap:	0.91	0.63	0.00	0.00	0.98	1.13	0.00	0.00	0.00	0.69	1.13	0.81
Uniform Del:	42.7	18.8	0.0	0.0	43.0	43.3	0.0	0.0	0.0	31.2	37.2	33.4
IncremntDel:	16.0	1.0	0.0	0.0	14.1	64.3	0.0	0.0	0.0	1.8	68.2	4.0
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	58.6	19.8	0.0	0.0	57.1	107.6	0.0	0.0	0.0	33.0	105	37.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	58.6	19.8	0.0	0.0	57.1	107.6	0.0	0.0	0.0	33.0	105	37.4
LOS by Move:	E+	B-	A	A	E+	F	A	A	A	C-	F	D+
HCM2kAvgQ:	485	423	0	0	620	845	0	0	0	398	1117	528

Note: Queue reported is the distance per lane in feet.

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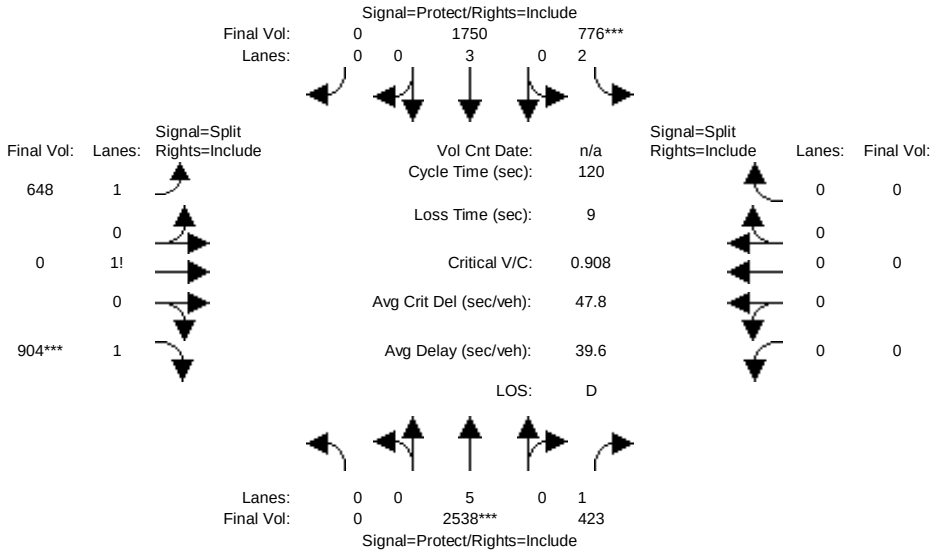
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #10: De Anza Boulevard/I-280 Ramps South



Street Name:	De Anza Boulevard						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	7	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	2504	423	776	1723	0	648	0	795	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2504	423	776	1723	0	648	0	795	0	0	0
Added Vol:	0	34	0	0	27	0	0	0	109	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2538	423	776	1750	0	648	0	904	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	2538	423	776	1750	0	648	0	904	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2538	423	776	1750	0	648	0	904	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	2538	423	776	1750	0	648	0	904	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	5.00	1.00	2.00	3.00	0.00	1.42	0.00	1.58	0.00	0.00	0.00
Final Sat.:	0	9500	1750	3150	5700	0	2481	0	2769	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.24	0.25	0.31	0.00	0.26	0.00	0.33	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green Time:	0.0	35.3	35.3	32.6	67.9	0.0	43.1	0.0	43.1	0.0	0.0	0.0
Volume/Cap:	0.00	0.91	0.82	0.91	0.54	0.00	0.73	0.00	0.91	0.00	0.00	0.00
Uniform Del:	0.0	40.8	39.4	42.3	16.3	0.0	33.3	0.0	36.5	0.0	0.0	0.0
IncremntDel:	0.0	5.6	13.7	15.2	0.7	0.0	2.2	0.0	8.6	0.0	0.0	0.0
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	46.4	53.2	57.5	17.0	0.0	35.5	0.0	45.2	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:	0.0	46.4	53.2	57.5	17.0	0.0	35.5	0.0	45.2	0.0	0.0	0.0
LOS by Move:	A	D	D-	E+	B	A	D+	A	D	A	A	A
HCM2kAvgQ:	0	542	446	484	341	0	419	0	634	0	0	0

Note: Queue reported is the distance per lane in feet.

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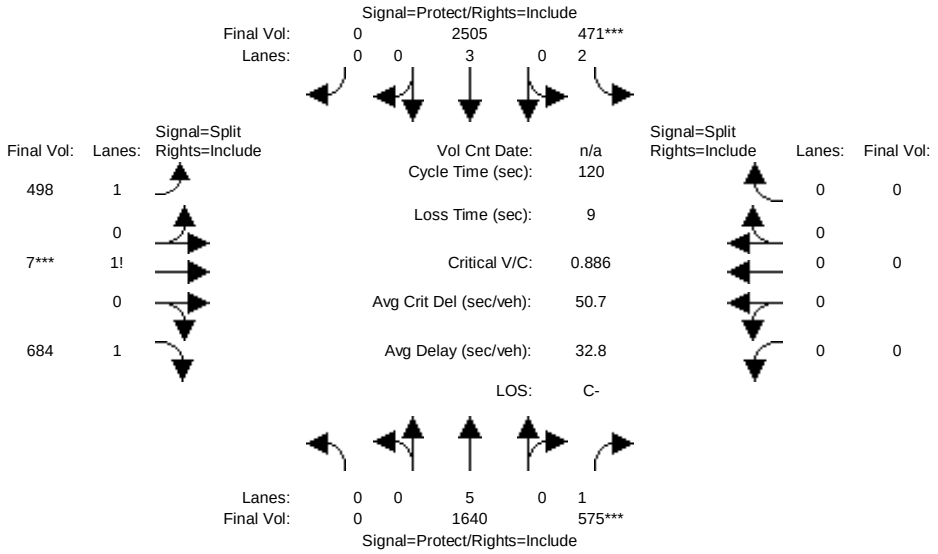
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #10: De Anza Boulevard/I-280 Ramps South



Street Name:	De Anza Boulevard						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	7	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1513	575	471	2490	0	498	7	624	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1513	575	471	2490	0	498	7	624	0	0	0
Added Vol:	0	127	0	0	15	0	0	0	60	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1640	575	471	2505	0	498	7	684	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	1640	575	471	2505	0	498	7	684	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1640	575	471	2505	0	498	7	684	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	1640	575	471	2505	0	498	7	684	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92
Lanes:	0.00	5.00	1.00	2.00	3.00	0.00	1.42	0.01	1.57	0.00	0.00	0.00
Final Sat.:	0	9500	1750	3150	5700	0	2479	20	2751	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.17	0.33	0.15	0.44	0.00	0.20	0.34	0.25	0.00	0.00	0.00
Crit Moves:			****	****				****				
Green Time:	0.0	44.5	44.5	20.2	64.7	0.0	46.3	46.3	46.3	0.0	0.0	0.0
Volume/Cap:	0.00	0.47	0.89	0.89	0.81	0.00	0.52	0.89	0.64	0.00	0.00	0.00
Uniform Del:	0.0	28.7	35.4	48.8	22.7	0.0	28.3	34.4	30.1	0.0	0.0	0.0
IncremntDel:	0.0	0.4	16.4	19.2	2.5	0.0	0.9	8.9	1.8	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	29.2	51.8	67.9	25.2	0.0	29.2	43.3	31.9	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:	0.0	29.2	51.8	67.9	25.2	0.0	29.2	43.3	31.9	0.0	0.0	0.0
LOS by Move:	A	C	D-	E	C	A	C	D	C	A	A	A
HCM2kAvgQ:	0	229	616	245	591	0	271	635	365	0	0	0

Note: Queue reported is the distance per lane in feet.

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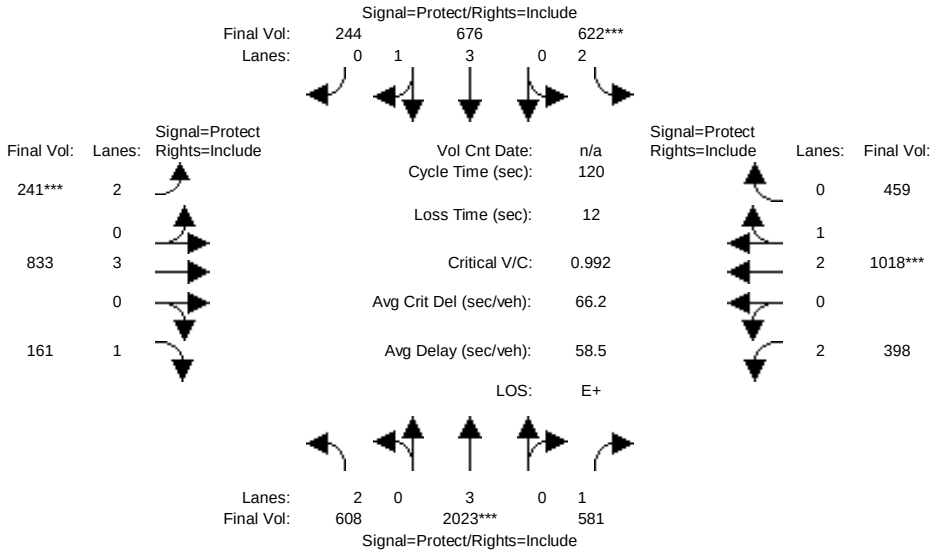
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #11: De Anza Boulevard/Stevens Creek Boulevard



Street Name:	De Anza Boulevard						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	608	2023	322	460	676	244	241	620	161	322	956	417
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	608	2023	322	460	676	244	241	620	161	322	956	417
Added Vol:	0	0	259	162	0	0	0	213	0	76	62	42
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	608	2023	581	622	676	244	241	833	161	398	1018	459
User Adj:	1.00	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:	608	2023	581	622	676	244	241	833	161	398	1018	459
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	608	2023	581	622	676	244	241	833	161	398	1018	459
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	608	2023	581	622	676	244	241	833	161	398	1018	459
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.95
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.03	0.97
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	5700	1750	3150	3857	1739
Capacity Analysis Module:												
Vol/Sat:	0.19	0.35	0.33	0.20	0.12	0.14	0.08	0.15	0.09	0.13	0.26	0.26
Crit Moves:		****		****			****				****	
Green Time:	38.8	42.9	42.9	23.9	28.0	28.0	9.3	22.1	22.1	19.1	31.9	31.9
Volume/Cap:	0.60	0.99	0.93	0.99	0.51	0.60	0.99	0.79	0.50	0.79	0.99	0.99
Uniform Del:	34.0	38.4	37.0	48.0	40.0	41.0	55.3	46.8	44.0	48.6	43.9	43.9
IncremntDel:	2.6	18.1	22.0	34.0	1.0	1.7	55.7	6.2	5.5	12.2	21.5	21.5
InitQueuDel:	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:	36.6	56.5	59.1	82.0	41.0	42.7	111.1	53.0	49.4	60.8	65.4	65.4
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:	36.6	56.5	59.1	82.0	41.0	42.7	111.1	53.0	49.4	60.8	65.4	65.4
LOS by Move:	D+	E+	E+	F	D	D	F	D-	D	E	E	E
HCM2kAvgQ:	292	781	664	479	188	231	226	294	155	263	608	608

Note: Queue reported is the distance per lane in feet.

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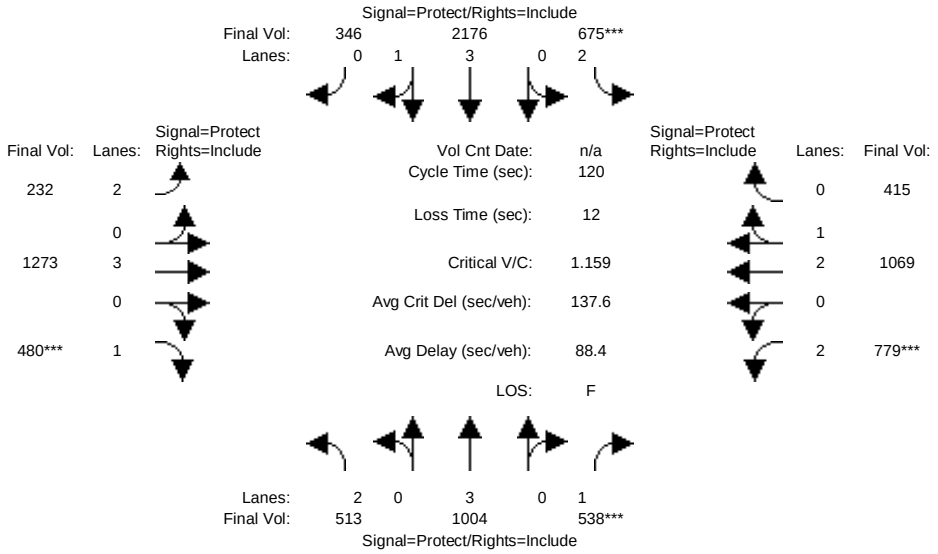
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #11: De Anza Boulevard/Stevens Creek Boulevard



Street Name:	De Anza Boulevard						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	513	1004	395	586	2176	346	232	1155	480	496	837	259
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	513	1004	395	586	2176	346	232	1155	480	496	837	259
Added Vol:	0	0	143	89	0	0	0	118	0	283	232	156
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	513	1004	538	675	2176	346	232	1273	480	779	1069	415
User Adj:	1.00	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:	513	1004	538	675	2176	346	232	1273	480	779	1069	415
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	513	1004	538	675	2176	346	232	1273	480	779	1069	415
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	513	1004	538	675	2176	346	232	1273	480	779	1069	415
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.99	0.95	0.83	1.00	0.92	0.83	1.00	0.95
Lanes:	2.00	3.00	1.00	2.00	3.43	0.57	2.00	3.00	1.00	2.00	2.13	0.87
Final Sat.:	3150	5700	1750	3150	6469	1029	3150	5700	1750	3150	4032	1565
Capacity Analysis Module:												
Vol/Sat:	0.16	0.18	0.31	0.21	0.34	0.34	0.07	0.22	0.27	0.25	0.27	0.27
Crit Moves:			****	****					****	****		
Green Time:	17.6	31.8	31.8	22.2	36.4	36.4	11.7	28.4	28.4	25.6	42.3	42.3
Volume/Cap:	1.11	0.66	1.16	1.16	1.11	1.11	0.75	0.94	1.16	1.16	0.75	0.75
Uniform Del:	51.2	39.3	44.1	48.9	41.8	41.8	52.7	45.0	45.8	47.2	34.3	34.3
IncremntDel:	75.0	2.3	93.3	89.6	56.2	56.2	15.6	14.3	95.4	87.6	2.7	2.7
InitQueuDel:	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:	126.2	41.6	137.4	138.5	98.0	98.0	68.3	59.3	141.2	134.8	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:	126.2	41.6	137.4	138.5	98.0	98.0	68.3	59.3	141.2	134.8	37.0	37.0
LOS by Move:	F	D	F	F	F	F	E	E+	F	F	D+	D+
HCM2kAvgQ:	468	294	860	625	875	875	169	494	777	709	437	437

Note: Queue reported is the distance per lane in feet.

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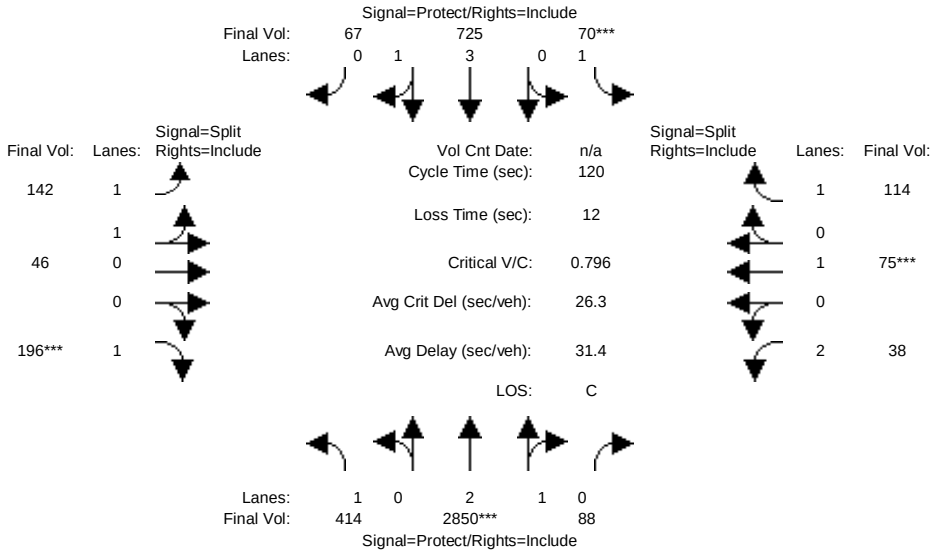
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #12: De Anza Boulevard/McClellan Road



Street Name:	De Anza Boulevard						McClellan Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	414	2591	88	70	649	67	142	46	196	38	75	114
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	414	2591	88	70	649	67	142	46	196	38	75	114
Added Vol:	0	259	0	0	76	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	414	2850	88	70	725	67	142	46	196	38	75	114
User Adj:	1.00	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:	414	2850	88	70	725	67	142	46	196	38	75	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	414	2850	88	70	725	67	142	46	196	38	75	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	414	2850	88	70	725	67	142	46	196	38	75	114
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.99	0.95	0.93	0.95	0.92	0.83	1.00	0.92
Lanes:	1.00	2.91	0.09	1.00	3.65	0.35	1.52	0.48	1.00	2.00	1.00	1.00
Final Sat.:	1750	5432	168	1750	6864	634	2681	869	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.24	0.52	0.52	0.04	0.11	0.11	0.05	0.05	0.11	0.01	0.04	0.07
Crit Moves:		****		****					****		****	
Green Time:	56.7	75.0	75.0	7.0	25.3	25.3	16.0	16.0	16.0	10.0	10.0	10.0
Volume/Cap:	0.50	0.84	0.84	0.69	0.50	0.50	0.40	0.40	0.84	0.14	0.47	0.78
Uniform Del:	21.9	17.8	17.8	55.4	41.8	41.8	47.6	47.6	50.7	51.0	52.5	53.9
IncremntDel:	2.2	2.6	2.6	31.5	1.1	1.1	2.5	2.5	28.8	1.2	9.8	33.1
InitQueuDel:	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:	24.0	20.4	20.4	86.9	42.9	42.9	50.1	50.1	79.6	52.2	62.3	87.0
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:	24.0	20.4	20.4	86.9	42.9	42.9	50.1	50.1	79.6	52.2	62.3	87.0
LOS by Move:	C	C+	C+	F	D	D	D	D	E-	D-	E	F
HCM2kAvgQ:	284	766	766	102	172	172	93	93	253	22	80	159

Note: Queue reported is the distance per lane in feet.

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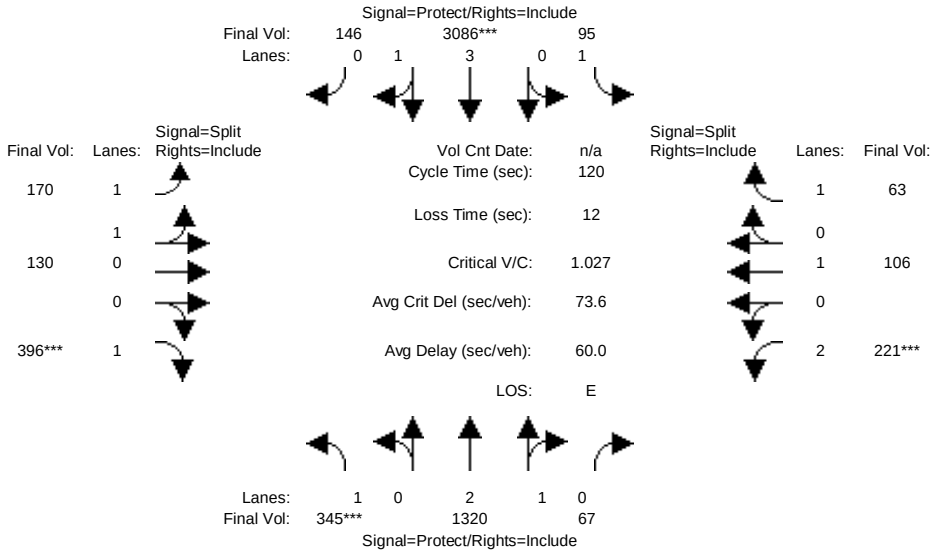
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #12: De Anza Boulevard/McClellan Road



Street Name:	De Anza Boulevard						McClellan Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	345	1177	67	95	2803	146	170	130	396	221	106	63
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	345	1177	67	95	2803	146	170	130	396	221	106	63
Added Vol:	0	143	0	0	283	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	345	1320	67	95	3086	146	170	130	396	221	106	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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:	345	1320	67	95	3086	146	170	130	396	221	106	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	345	1320	67	95	3086	146	170	130	396	221	106	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	345	1320	67	95	3086	146	170	130	396	221	106	63
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.99	0.95	0.92	0.95	0.92	0.83	1.00	0.92
Lanes:	1.00	2.85	0.15	1.00	3.81	0.19	1.15	0.85	1.00	2.00	1.00	1.00
Final Sat.:	1750	5329	270	1750	7161	339	2011	1538	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.20	0.25	0.25	0.05	0.43	0.43	0.08	0.08	0.23	0.07	0.06	0.04
Crit Moves:	****				****				****	****		
Green Time:	22.6	58.3	58.3	13.7	49.4	49.4	26.0	26.0	26.0	10.0	10.0	10.0
Volume/Cap:	1.05	0.51	0.51	0.47	1.05	1.05	0.39	0.39	1.05	0.84	0.67	0.43
Uniform Del:	48.7	21.1	21.1	49.8	35.3	35.3	40.3	40.3	47.0	54.2	53.4	52.3
IncremntDel:	62.1	0.7	0.7	7.9	29.9	29.9	1.5	1.5	58.8	26.6	20.3	9.1
InitQueuDel:	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:	110.8	21.8	21.8	57.6	65.2	65.2	41.7	41.7	105.9	80.8	73.7	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:	110.8	21.8	21.8	57.6	65.2	65.2	41.7	41.7	105.9	80.8	73.7	61.4
LOS by Move:	F	C+	C+	E+	E	E	D	D	F	F	E	E
HCM2kAvgQ:	511	294	294	102	998	998	130	130	574	180	126	72

Note: Queue reported is the distance per lane in feet.

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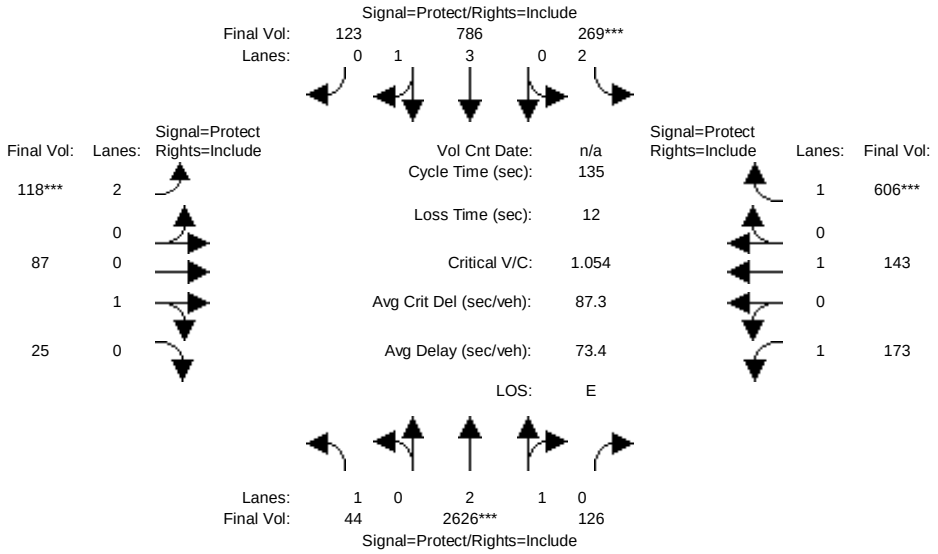
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #13: De Anza Boulevard/Bollinger Road



Street Name:	De Anza Boulevard						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	44	2373	126	269	712	121	111	80	25	173	141	606
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	44	2373	126	269	712	121	111	80	25	173	141	606
Added Vol:	0	253	0	0	74	2	7	7	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	2626	126	269	786	123	118	87	25	173	143	606
User Adj:	1.00	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:	44	2626	126	269	786	123	118	87	25	173	143	606
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	2626	126	269	786	123	118	87	25	173	143	606
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	44	2626	126	269	786	123	118	87	25	173	143	606
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.83	0.99	0.95	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	2.86	0.14	2.00	3.44	0.56	2.00	0.78	0.22	1.00	1.00	1.00
Final Sat.:	1750	5343	256	3150	6483	1015	3150	1398	402	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.49	0.49	0.09	0.12	0.12	0.04	0.06	0.06	0.10	0.08	0.35
Crit Moves:		****		****			****					****
Green Time:	21.7	61.8	61.8	10.7	50.8	50.8	7.0	21.6	21.6	28.9	43.5	43.5
Volume/Cap:	0.16	1.07	1.07	1.07	0.32	0.32	0.72	0.39	0.39	0.46	0.23	1.07
Uniform Del:	48.8	36.6	36.6	62.1	29.9	29.9	63.0	50.8	50.8	46.3	33.5	45.7
IncremntDel:	1.2	41.6	41.6	78.0	0.3	0.3	24.1	3.9	3.9	4.1	0.9	59.4
InitQueuDel:	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:	49.9	78.2	78.2	140.1	30.2	30.2	87.1	54.7	54.7	50.4	34.4	105.2
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:	49.9	78.2	78.2	140.1	30.2	30.2	87.1	54.7	54.7	50.4	34.4	105.2
LOS by Move:	D	E-	E-	F	C	C	F	D-	D-	D	C-	F
HCM2kAvgQ:	43	1265	1265	284	165	165	109	115	115	174	106	926

Note: Queue reported is the distance per lane in feet.

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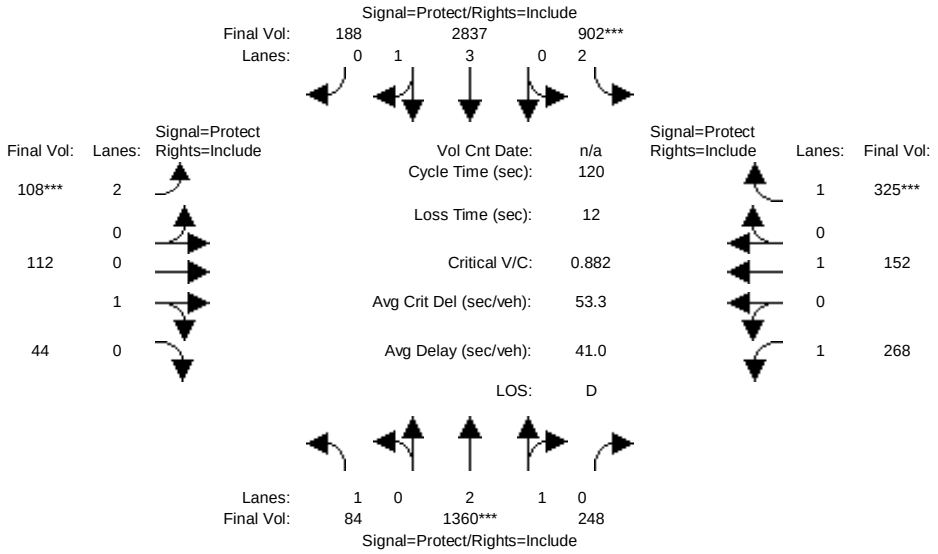
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #13: De Anza Boulevard/Bollinger Road



Street Name:	De Anza Boulevard						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	40	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	84	1220	248	902	2561	181	104	108	44	268	145	325
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	84	1220	248	902	2561	181	104	108	44	268	145	325
Added Vol:	0	140	0	0	276	7	4	4	0	0	7	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	84	1360	248	902	2837	188	108	112	44	268	152	325
User Adj:	1.00	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:	84	1360	248	902	2837	188	108	112	44	268	152	325
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	1360	248	902	2837	188	108	112	44	268	152	325
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	84	1360	248	902	2837	188	108	112	44	268	152	325
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	0.99	0.95	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	2.52	0.48	2.00	3.74	0.26	2.00	0.72	0.28	1.00	1.00	1.00
Final Sat.:	1750	4735	863	3150	7033	466	3150	1292	508	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.29	0.29	0.29	0.40	0.40	0.03	0.09	0.09	0.15	0.08	0.19
Crit Moves:		****		****			****					****
Green Time:	9.7	37.0	37.0	40.0	67.3	67.3	7.0	11.2	11.2	19.8	24.0	24.0
Volume/Cap:	0.59	0.93	0.93	0.86	0.72	0.72	0.59	0.93	0.93	0.93	0.40	0.93
Uniform Del:	53.2	40.2	40.2	37.4	19.4	19.4	55.1	54.0	54.0	49.4	41.8	47.2
IncremntDel:	16.8	10.4	10.4	9.1	1.1	1.1	13.0	53.0	53.0	37.7	3.1	33.3
InitQueuDel:	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:	70.1	50.7	50.7	46.5	20.5	20.5	68.1	107	107.0	87.1	44.9	80.5
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:	70.1	50.7	50.7	46.5	20.5	20.5	68.1	107	107.0	87.1	44.9	80.5
LOS by Move:	E	D	D	D	C+	C+	E	F	F	F	D	F
HCM2kAvgQ:	105	593	593	533	530	530	82	232	232	359	127	419

Note: Queue reported is the distance per lane in feet.

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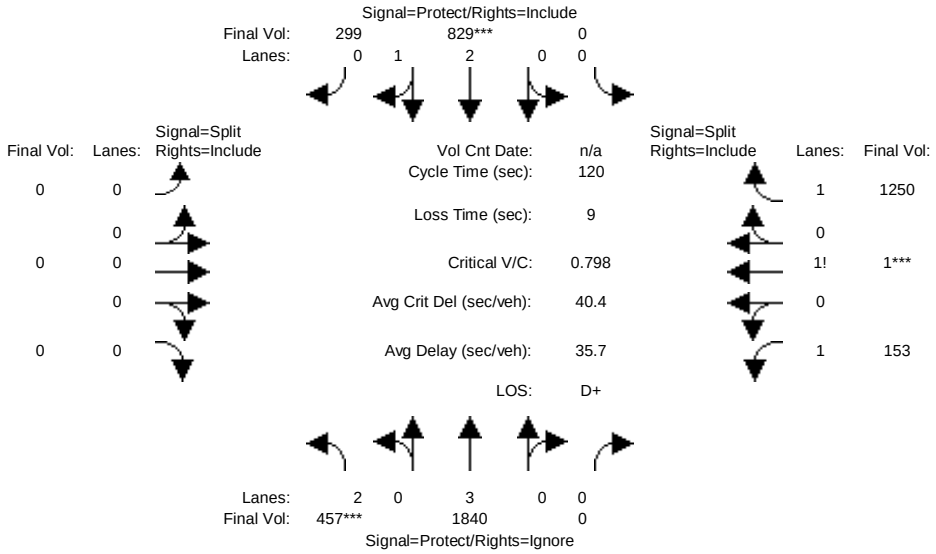
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #14: De Anza Boulevard/SR 85 Ramps North



Street Name:	De Anza Boulevard						SR 85 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	457	1773	0	0	755	299	0	0	0	153	1	1064
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	457	1773	0	0	755	299	0	0	0	153	1	1064
Added Vol:	0	67	0	0	74	0	0	0	0	0	0	186
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	457	1840	0	0	829	299	0	0	0	153	1	1250
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	457	1840	0	0	829	299	0	0	0	153	1	1250
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	457	1840	0	0	829	299	0	0	0	153	1	1250
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	457	1840	0	0	829	299	0	0	0	153	1	1250
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.95	0.92	1.00	0.92	0.92	0.95	0.95
Lanes:	2.00	3.00	0.00	0.00	2.18	0.82	0.00	0.00	0.00	1.11	0.01	1.88
Final Sat.:	3150	5700	0	0	4114	1484	0	0	0	1945	3	3396
Capacity Analysis Module:												
Vol/Sat:	0.15	0.32	0.00	0.00	0.20	0.20	0.00	0.00	0.00	0.08	0.39	0.37
Crit Moves:	****				****						****	
Green Time:	21.8	52.1	0.0	0.0	30.3	30.3	0.0	0.0	0.0	58.9	58.9	58.9
Volume/Cap:	0.80	0.74	0.00	0.00	0.80	0.80	0.00	0.00	0.00	0.16	0.80	0.75
Uniform Del:	47.0	28.3	0.0	0.0	42.0	42.0	0.0	0.0	0.0	16.9	25.6	24.6
IncremntDel:	11.1	2.1	0.0	0.0	4.8	4.8	0.0	0.0	0.0	0.0	3.9	2.8
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	58.0	30.4	0.0	0.0	46.8	46.8	0.0	0.0	0.0	16.9	29.5	27.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	58.0	30.4	0.0	0.0	46.8	46.8	0.0	0.0	0.0	16.9	29.5	27.4
LOS by Move:	E+	C	A	A	D	D	A	A	A	B	C	C
HCM2kAvgQ:	253	475	0	0	377	377	0	0	0	74	605	538

Note: Queue reported is the distance per lane in feet.

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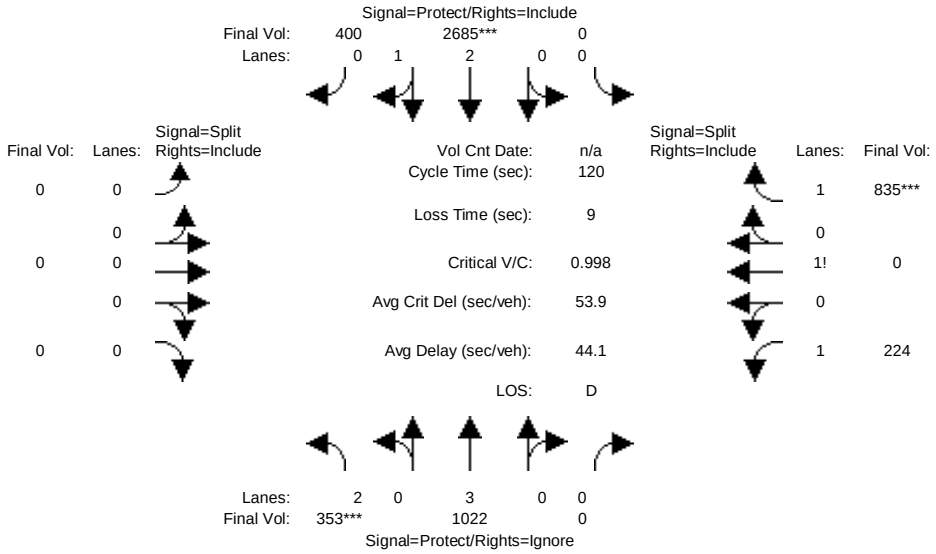
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #14: De Anza Boulevard/SR 85 Ramps North



Street Name:	De Anza Boulevard						SR 85 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	353	985	0	0	2409	400	0	0	0	224	0	732
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	353	985	0	0	2409	400	0	0	0	224	0	732
Added Vol:	0	37	0	0	276	0	0	0	0	0	0	103
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	353	1022	0	0	2685	400	0	0	0	224	0	835
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	353	1022	0	0	2685	400	0	0	0	224	0	835
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	353	1022	0	0	2685	400	0	0	0	224	0	835
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	353	1022	0	0	2685	400	0	0	0	224	0	835
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.95
Lanes:	2.00	3.00	0.00	0.00	2.60	0.40	0.00	0.00	0.00	1.22	0.00	1.78
Final Sat.:	3150	5700	0	0	4873	726	0	0	0	2128	0	3211
Capacity Analysis Module:												
Vol/Sat:	0.11	0.18	0.00	0.00	0.55	0.55	0.00	0.00	0.00	0.11	0.00	0.26
Crit Moves:	****				****							****
Green Time:	13.5	79.7	0.0	0.0	66.3	66.3	0.0	0.0	0.0	31.3	0.0	31.3
Volume/Cap:	1.00	0.27	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.40	0.00	1.00
Uniform Del:	53.2	8.2	0.0	0.0	26.8	26.8	0.0	0.0	0.0	36.7	0.0	44.3
IncremntDel:	47.4	0.2	0.0	0.0	15.7	15.7	0.0	0.0	0.0	0.5	0.0	27.1
InitQueuDel:	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	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	100.6	8.4	0.0	0.0	42.5	42.5	0.0	0.0	0.0	37.1	0.0	71.5
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:	100.6	8.4	0.0	0.0	42.5	42.5	0.0	0.0	0.0	37.1	0.0	71.5
LOS by Move:	F	A	A	A	D	D	A	A	A	D+	A	E
HCM2kAvgQ:	234	122	0	0	1153	1153	0	0	0	154	0	606

Note: Queue reported is the distance per lane in feet.

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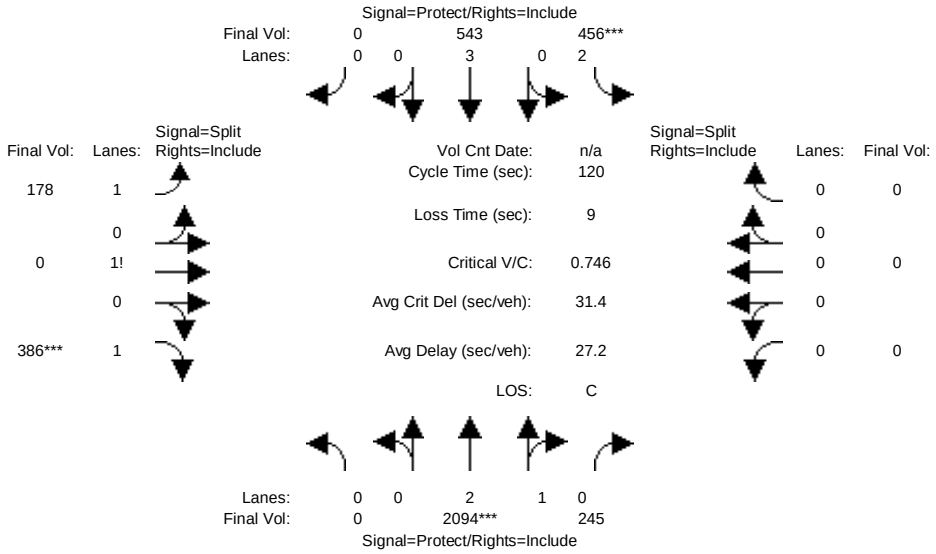
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #15: De Anza Boulevard/SR 85 Ramps South



Street Name:	De Anza Boulevard						SR 85 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	2027	245	402	524	0	178	0	386	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2027	245	402	524	0	178	0	386	0	0	0
Added Vol:	0	67	0	54	19	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2094	245	456	543	0	178	0	386	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	2094	245	456	543	0	178	0	386	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2094	245	456	543	0	178	0	386	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	2094	245	456	543	0	178	0	386	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.92	1.00	0.95	0.92	1.00	0.92
Lanes:	0.00	2.67	0.33	2.00	3.00	0.00	1.32	0.00	1.68	0.00	0.00	0.00
Final Sat.:	0	5013	586	3150	5700	0	2313	0	3021	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.42	0.42	0.14	0.10	0.00	0.08	0.00	0.13	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green Time:	0.0	67.2	67.2	23.3	90.5	0.0	20.5	0.0	20.5	0.0	0.0	0.0
Volume/Cap:	0.00	0.75	0.75	0.75	0.13	0.00	0.45	0.00	0.75	0.00	0.00	0.00
Uniform Del:	0.0	20.0	20.0	45.6	4.0	0.0	44.6	0.0	47.2	0.0	0.0	0.0
IncremntDel:	0.0	1.7	1.7	8.1	0.1	0.0	1.2	0.0	6.6	0.0	0.0	0.0
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	21.6	21.6	53.7	4.1	0.0	45.8	0.0	53.9	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:	0.0	21.6	21.6	53.7	4.1	0.0	45.8	0.0	53.9	0.0	0.0	0.0
LOS by Move:	A	C+	C+	D-	A	A	D	A	D-	A	A	A
HCM2kAvgQ:	0	568	568	240	44	0	129	0	252	0	0	0

Note: Queue reported is the distance per lane in feet.

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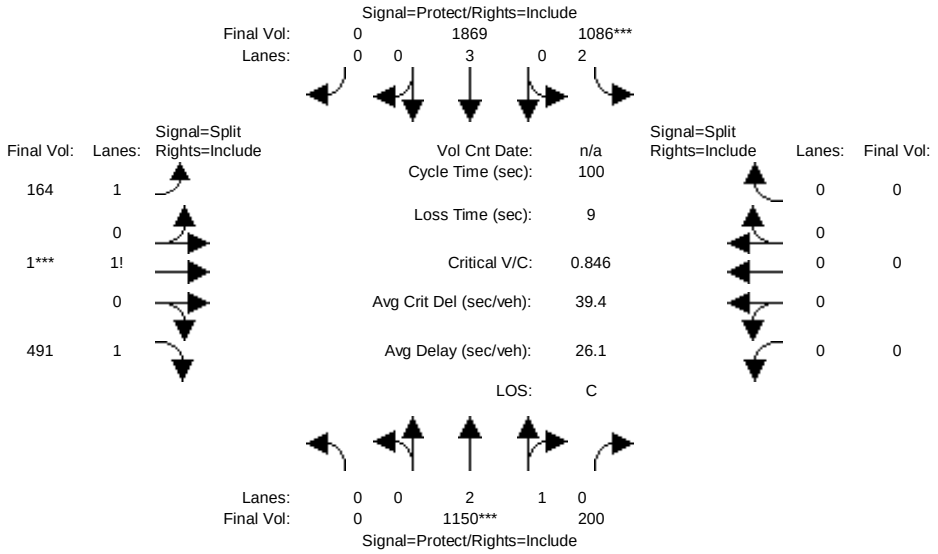
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #15: De Anza Boulevard/SR 85 Ramps South



Street Name:	De Anza Boulevard						SR 85 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1113	200	883	1796	0	164	1	491	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1113	200	883	1796	0	164	1	491	0	0	0
Added Vol:	0	37	0	203	73	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1150	200	1086	1869	0	164	1	491	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	1150	200	1086	1869	0	164	1	491	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1150	200	1086	1869	0	164	1	491	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	1150	200	1086	1869	0	164	1	491	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	0.00	2.54	0.46	2.00	3.00	0.00	1.25	0.01	1.74	0.00	0.00	0.00
Final Sat.:	0	4769	829	3150	5700	0	2196	5	3136	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.24	0.24	0.34	0.33	0.00	0.07	0.18	0.16	0.00	0.00	0.00
Crit Moves:		****		****				****				
Green Time:	0.0	28.5	28.5	40.8	69.3	0.0	21.7	21.7	21.7	0.0	0.0	0.0
Volume/Cap:	0.00	0.85	0.85	0.85	0.47	0.00	0.34	0.85	0.72	0.00	0.00	0.00
Uniform Del:	0.0	33.7	33.7	26.8	7.0	0.0	33.1	37.5	36.3	0.0	0.0	0.0
IncremntDel:	0.0	5.7	5.7	7.0	0.4	0.0	0.5	11.0	4.9	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	39.4	39.4	33.8	7.4	0.0	33.6	48.5	41.2	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:	0.0	39.4	39.4	33.8	7.4	0.0	33.6	48.5	41.2	0.0	0.0	0.0
LOS by Move:	A	D	D	C-	A	A	C-	D	D	A	A	A
HCM2kAvgQ:	0	399	399	424	201	0	96	326	248	0	0	0

Note: Queue reported is the distance per lane in feet.

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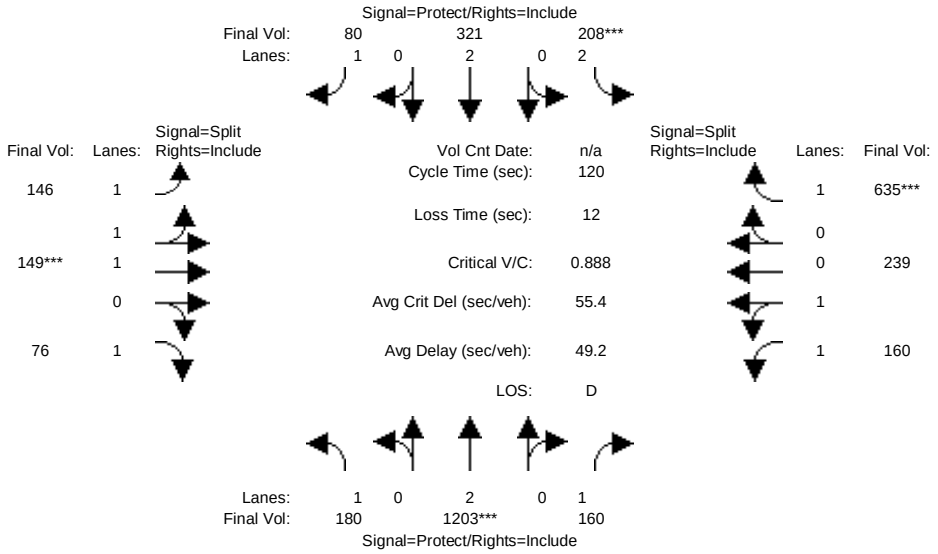
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #16: Saratoga Sunnyvale Road/Prospect Road



Street Name:	Saratoga Sunnyvale Road						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	180	1163	160	208	309	72	119	149	76	160	239	635
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	180	1163	160	208	309	72	119	149	76	160	239	635
Added Vol:	0	40	0	0	12	8	27	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	180	1203	160	208	321	80	146	149	76	160	239	635
User Adj:	1.00	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:	180	1203	160	208	321	80	146	149	76	160	239	635
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	180	1203	160	208	321	80	146	149	76	160	239	635
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	180	1203	160	208	321	80	146	149	76	160	239	635
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.93	0.98	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.53	1.47	1.00	1.00	1.00	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	2695	2751	1750	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.32	0.09	0.07	0.08	0.05	0.05	0.05	0.04	0.09	0.13	0.36
Crit Moves:		****		****				****				****
Green Time:	27.6	41.6	41.6	8.7	22.7	22.7	10.0	10.0	10.0	47.7	47.7	47.7
Volume/Cap:	0.45	0.91	0.26	0.91	0.45	0.24	0.65	0.65	0.52	0.23	0.32	0.91
Uniform Del:	39.6	37.5	28.2	55.3	43.1	41.4	53.3	53.3	52.7	24.0	24.9	34.2
IncremntDel:	3.6	11.1	1.1	40.6	2.0	1.7	7.1	7.1	12.7	0.3	0.7	18.4
InitQueuDel:	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:	43.2	48.6	29.2	95.9	45.1	43.1	60.4	60.4	65.4	24.3	25.6	52.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.2	48.6	29.2	95.9	45.1	43.1	60.4	60.4	65.4	24.3	25.6	52.6
LOS by Move:	D	D	C	F	D	D	E	E	E	C	C	D-
HCM2kAvgQ:	159	624	113	186	138	69	121	121	91	103	149	694

Note: Queue reported is the distance per lane in feet.

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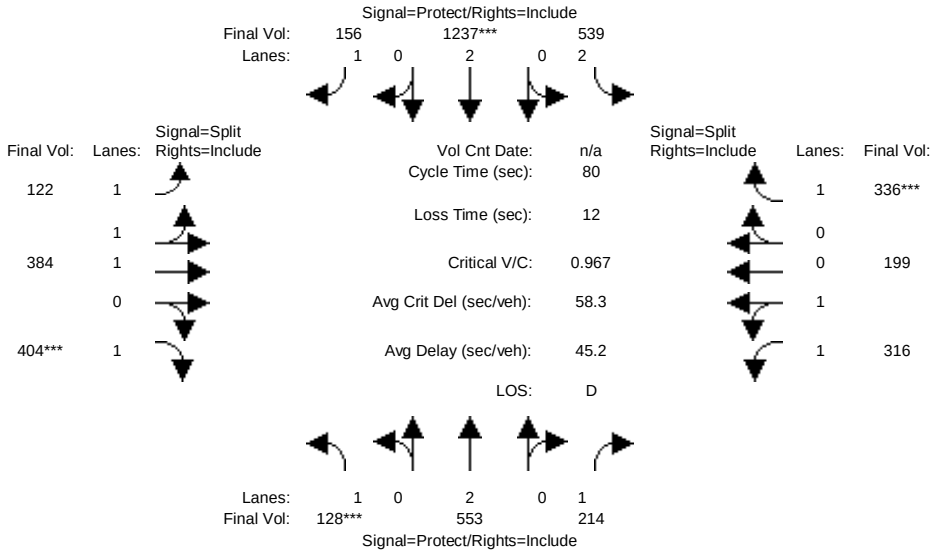
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #16: Saratoga Sunnyvale Road/Prospect Road



Street Name:	Saratoga Sunnyvale Road						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	128	531	214	539	1193	127	107	384	404	316	199	336
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	128	531	214	539	1193	127	107	384	404	316	199	336
Added Vol:	0	22	0	0	44	29	15	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	128	553	214	539	1237	156	122	384	404	316	199	336
User Adj:	1.00	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:	128	553	214	539	1237	156	122	384	404	316	199	336
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	128	553	214	539	1237	156	122	384	404	316	199	336
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	128	553	214	539	1237	156	122	384	404	316	199	336
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00	1.24	0.76	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	1750	3800	1750	2178	1372	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.15	0.12	0.17	0.33	0.09	0.07	0.10	0.23	0.15	0.15	0.19
Crit Moves:	****				****				****			****
Green Time:	7.0	15.4	15.4	18.1	26.5	26.5	18.8	18.8	18.8	15.6	15.6	15.6
Volume/Cap:	0.84	0.76	0.63	0.76	0.98	0.27	0.30	0.43	0.98	0.74	0.74	0.98
Uniform Del:	35.9	30.5	29.7	28.9	26.5	19.6	25.1	26.0	30.4	30.3	30.3	32.0
IncremntDel:	39.1	7.1	8.8	7.3	21.3	1.1	0.4	1.1	40.0	7.0	7.0	44.2
InitQueuDel:	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:	75.1	37.6	38.5	36.2	47.8	20.8	25.6	27.2	70.4	37.3	37.3	76.2
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:	75.1	37.6	38.5	36.2	47.8	20.8	25.6	27.2	70.4	37.3	37.3	76.2
LOS by Move:	E-	D+	D+	D+	D	C+	C	C	E	D+	D+	E-
HCM2kAvgQ:	146	208	158	233	543	78	71	109	415	204	204	360

Note: Queue reported is the distance per lane in feet.

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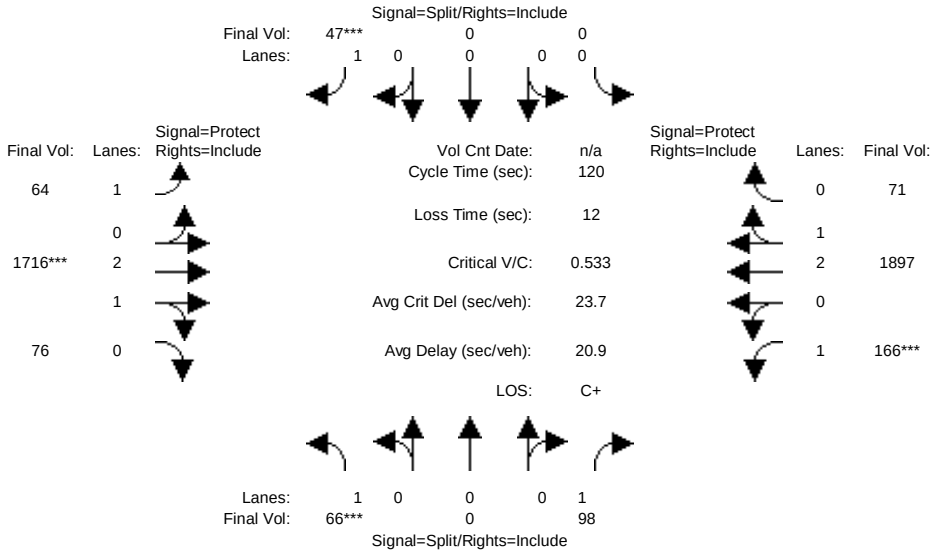
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #17: Stevens Creek Boulevard/Torre Avenue



Street Name:	Torre Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	66	0	98	0	0	47	64	1082	76	166	1717	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	66	0	98	0	0	47	64	1082	76	166	1717	71
Added Vol:	0	0	0	0	0	0	0	634	0	0	180	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	66	0	98	0	0	47	64	1716	76	166	1897	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:	66	0	98	0	0	47	64	1716	76	166	1897	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	0	98	0	0	47	64	1716	76	166	1897	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:	66	0	98	0	0	47	64	1716	76	166	1897	71
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	0.00	1.00	0.00	0.00	1.00	1.00	2.87	0.13	1.00	2.89	0.11
Final Sat.:	1750	0	1750	0	0	1750	1750	5362	237	1750	5398	202
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.06	0.00	0.00	0.03	0.04	0.32	0.32	0.09	0.35	0.35
Crit Moves:	****					****		****		****		
Green Time:	12.6	0.0	12.6	0.0	0.0	10.0	12.2	65.9	65.9	19.5	73.2	73.2
Volume/Cap:	0.36	0.00	0.53	0.00	0.00	0.32	0.36	0.58	0.58	0.58	0.58	0.58
Uniform Del:	49.9	0.0	50.9	0.0	0.0	51.8	50.3	18.0	18.0	46.5	14.1	14.1
IncremntDel:	5.4	0.0	10.6	0.0	0.0	5.8	5.6	0.8	0.8	8.5	0.7	0.7
InitQueuDel:	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	55.3	0.0	61.5	0.0	0.0	57.6	55.9	18.8	18.8	54.9	14.8	14.8
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:	55.3	0.0	61.5	0.0	0.0	57.6	55.9	18.8	18.8	54.9	14.8	14.8
LOS by Move:	E+	A	E	A	A	E+	E+	B-	B-	D-	B	B
HCM2kAvgQ:	69	0	110	0	0	52	68	370	370	171	368	368

Note: Queue reported is the distance per lane in feet.

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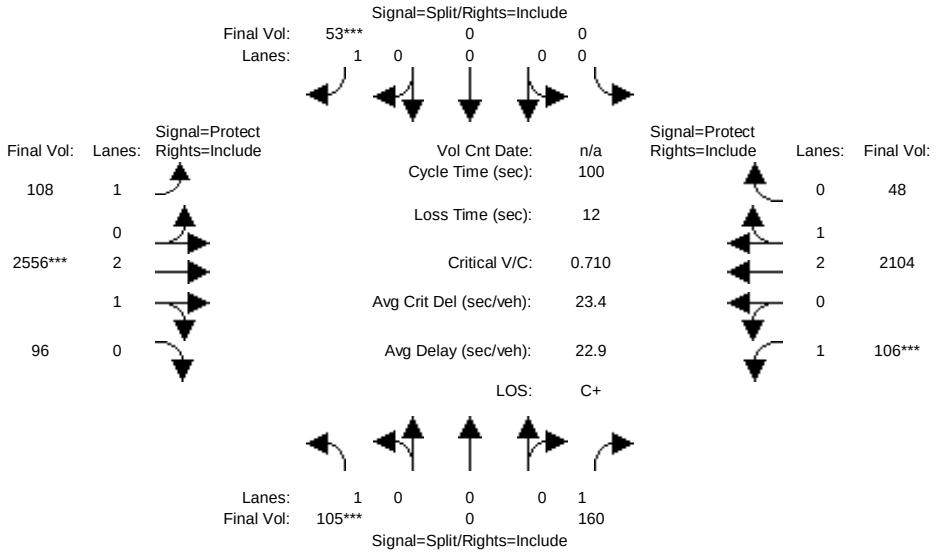
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #17: Stevens Creek Boulevard/Torre Avenue



Street Name:	Torre Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	105	0	160	0	0	53	108	2205	96	106	1433	48
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	105	0	160	0	0	53	108	2205	96	106	1433	48
Added Vol:	0	0	0	0	0	0	0	351	0	0	671	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	105	0	160	0	0	53	108	2556	96	106	2104	48
User Adj:	1.00	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:	105	0	160	0	0	53	108	2556	96	106	2104	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	105	0	160	0	0	53	108	2556	96	106	2104	48
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	105	0	160	0	0	53	108	2556	96	106	2104	48
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	0.00	1.00	0.00	0.00	1.00	1.00	2.89	0.11	1.00	2.93	0.07
Final Sat.:	1750	0	1750	0	0	1750	1750	5397	203	1750	5475	125
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.09	0.00	0.00	0.03	0.06	0.47	0.47	0.06	0.38	0.38
Crit Moves:	****					****		****			****	
Green Time:	12.9	0.0	12.9	0.0	0.0	10.0	10.0	57.7	57.7	7.4	55.1	55.1
Volume/Cap:	0.47	0.00	0.71	0.00	0.00	0.30	0.62	0.82	0.82	0.82	0.70	0.70
Uniform Del:	40.4	0.0	41.8	0.0	0.0	41.8	43.1	17.0	17.0	45.7	16.4	16.4
IncremntDel:	6.8	0.0	17.2	0.0	0.0	4.4	15.1	2.5	2.5	41.9	1.3	1.3
InitQueuDel:	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	47.1	0.0	59.0	0.0	0.0	46.2	58.2	19.4	19.4	87.5	17.7	17.7
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:	47.1	0.0	59.0	0.0	0.0	46.2	58.2	19.4	19.4	87.5	17.7	17.7
LOS by Move:	D	A	E+	A	A	D	E+	B-	B-	F	B	B
HCM2kAvgQ:	94	0	166	0	0	48	113	600	600	142	425	425

Note: Queue reported is the distance per lane in feet.

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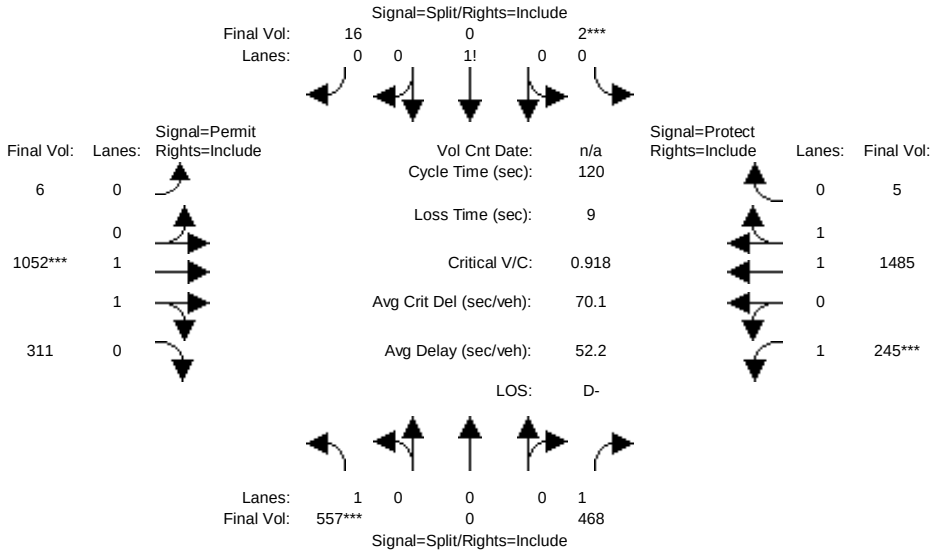
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #18: Homestead Road/Blaney Avenue



Street Name:	Homestead Road						Blaney Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	553	0	468	2	0	16	6	1012	298	245	1473	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:	553	0	468	2	0	16	6	1012	298	245	1473	5
Added Vol:	4	0	0	0	0	0	0	40	13	0	12	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	557	0	468	2	0	16	6	1052	311	245	1485	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:	557	0	468	2	0	16	6	1052	311	245	1485	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	557	0	468	2	0	16	6	1052	311	245	1485	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:	557	0	468	2	0	16	6	1052	311	245	1485	5
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.97	0.95
Lanes:	1.00	0.00	1.00	0.11	0.00	0.89	0.01	1.54	0.45	1.00	1.99	0.01
Final Sat.:	1750	0	1750	194	0	1556	16	2766	818	1750	3688	12
Capacity Analysis Module:												
Vol/Sat:	0.32	0.00	0.27	0.01	0.00	0.01	0.38	0.38	0.38	0.14	0.40	0.40
Crit Moves:	****			****				****		****		
Green Time:	38.3	0.0	38.3	10.0	0.0	10.0	45.8	45.8	45.8	16.9	62.7	62.7
Volume/Cap:	1.00	0.00	0.84	0.12	0.00	0.12	1.00	1.00	1.00	1.00	0.77	0.77
Uniform Del:	40.8	0.0	37.9	50.9	0.0	50.9	37.0	37.0	37.0	51.5	22.9	22.9
IncremntDel:	37.2	0.0	13.9	1.7	0.0	1.7	23.4	23.4	23.4	56.5	3.0	3.0
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	77.9	0.0	51.8	52.7	0.0	52.7	60.4	60.4	60.4	108.0	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:	77.9	0.0	51.8	52.7	0.0	52.7	60.4	60.4	60.4	108.0	26.0	26.0
LOS by Move:	E-	A	D-	D-	A	D-	E	E	E	F	C	C
HCM2kAvgQ:	717	0	491	19	0	19	834	834	834	364	586	586

Note: Queue reported is the distance per lane in feet.

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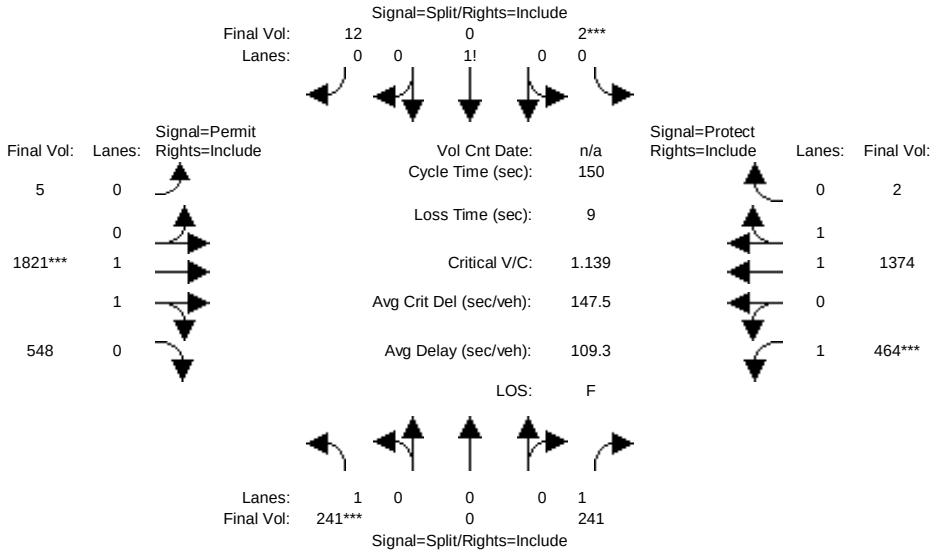
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #18: Homestead Road/Blaney Avenue



Street Name:	Homestead Road						Blaney Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	0	10	10	10	10	10	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	226	0	241	2	0	12	5	1799	541	464	1330	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	226	0	241	2	0	12	5	1799	541	464	1330	2
Added Vol:	15	0	0	0	0	0	0	22	7	0	44	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	241	0	241	2	0	12	5	1821	548	464	1374	2
User Adj:	1.00	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:	241	0	241	2	0	12	5	1821	548	464	1374	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	241	0	241	2	0	12	5	1821	548	464	1374	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	241	0	241	2	0	12	5	1821	548	464	1374	2
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.97	0.95
Lanes:	1.00	0.00	1.00	0.14	0.00	0.86	0.01	1.53	0.46	1.00	1.99	0.01
Final Sat.:	1750	0	1750	250	0	1500	8	2761	831	1750	3695	5
Capacity Analysis Module:												
Vol/Sat:	0.14	0.00	0.14	0.01	0.00	0.01	0.66	0.66	0.66	0.27	0.37	0.37
Crit Moves:	****			****				****		****		
Green Time:	17.0	0.0	17.0	10.0	0.0	10.0	81.3	81.3	81.3	32.7	114	114.0
Volume/Cap:	1.22	0.00	1.22	0.12	0.00	0.12	1.22	1.22	1.22	1.22	0.49	0.49
Uniform Del:	66.5	0.0	66.5	65.9	0.0	65.9	34.3	34.3	34.3	58.7	6.9	6.9
IncremntDel:	134.4	0.0	134.4	2.1	0.0	2.1	102.3	102	102.3	119.1	0.6	0.6
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	200.9	0.0	200.9	68.0	0.0	68.0	136.6	137	136.6	177.7	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:	200.9	0.0	200.9	68.0	0.0	68.0	136.6	137	136.6	177.7	7.5	7.5
LOS by Move:	F	A	F	E	A	E	F	F	F	F	A	A
HCM2kAvgQ:	506	0	506	18	0	18	2122	2122	2122	908	305	305

Note: Queue reported is the distance per lane in feet.

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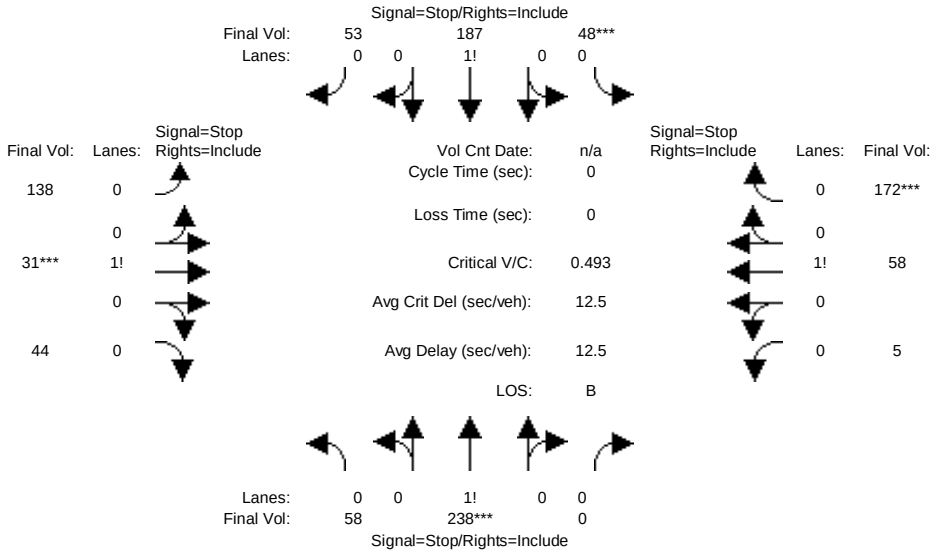
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #19: Blaney Avenue/Merritt Drive



Street Name:	Blaney Avenue						Merritt Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	58	226	0	48	147	53	138	31	44	5	58	172
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	58	226	0	48	147	53	138	31	44	5	58	172
Added Vol:	0	12	0	0	40	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	58	238	0	48	187	53	138	31	44	5	58	172
User Adj:	1.00	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:	58	238	0	48	187	53	138	31	44	5	58	172
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	238	0	48	187	53	138	31	44	5	58	172
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	58	238	0	48	187	53	138	31	44	5	58	172
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.20	0.80	0.00	0.17	0.65	0.18	0.65	0.14	0.21	0.02	0.25	0.73
Final Sat.:	118	482	0	101	395	112	362	81	115	13	149	442
Capacity Analysis Module:												
Vol/Sat:	0.49	0.49	xxxx	0.47	0.47	0.47	0.38	0.38	0.38	0.39	0.39	0.39
Crit Moves:		****		****				****				****
Delay/Veh:	13.4	13.4	0.0	12.9	12.9	12.9	12.0	12.0	12.0	11.4	11.4	11.4
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
AdjDel/Veh:	13.4	13.4	0.0	12.9	12.9	12.9	12.0	12.0	12.0	11.4	11.4	11.4
LOS by Move:	B	B	*	B	B	B	B	B	B	B	B	B
ApproachDel:		13.4			12.9			12.0			11.4	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		13.4			12.9			12.0			11.4	
LOS by Appr:		B			B			B			B	
AllWayAvgQ:	19.9	19.9	19.9	18.3	18.3	18.3	12.0	12.0	12.0	12.3	12.3	12.3

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #19 Blaney Avenue/Merritt Drive

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 1	0	0 0	0	0 1!	0 0	0 0	1!	0 0	0 0	1!	0 0
Initial Vol:	58	238	0	48	187	53	138	31	44	5	58	172

Major Street Volume: 584
Minor Approach Volume: 235
Minor Approach Volume Threshold: 363

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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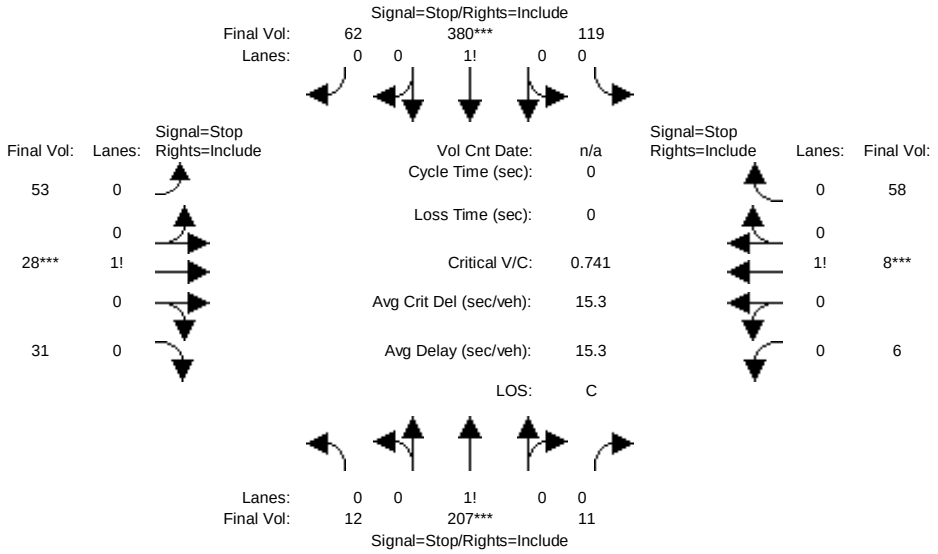
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #19: Blaney Avenue/Merritt Drive



Street Name:	Blaney Avenue						Merritt Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	12	163	11	119	358	62	53	28	31	6	8	58
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	163	11	119	358	62	53	28	31	6	8	58
Added Vol:	0	44	0	0	22	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	207	11	119	380	62	53	28	31	6	8	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:	12	207	11	119	380	62	53	28	31	6	8	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	207	11	119	380	62	53	28	31	6	8	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:	12	207	11	119	380	62	53	28	31	6	8	58
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.05	0.90	0.05	0.21	0.68	0.11	0.47	0.25	0.28	0.08	0.11	0.81
Final Sat.:	36	613	33	161	513	84	265	140	155	48	64	467
Capacity Analysis Module:												
Vol/Sat:	0.34	0.34	0.34	0.74	0.74	0.74	0.20	0.20	0.20	0.12	0.12	0.12
Crit Moves:		****			****			****			****	
Delay/Veh:	10.4	10.4	10.4	19.2	19.2	19.2	10.0	10.0	10.0	9.1	9.1	9.1
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
AdjDel/Veh:	10.4	10.4	10.4	19.2	19.2	19.2	10.0	10.0	10.0	9.1	9.1	9.1
LOS by Move:	B	B	B	C	C	C	A	A	A	A	A	A
ApproachDel:		10.4			19.2			10.0			9.1	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.4			19.2			10.0			9.1	
LOS by Appr:		B			C			A			A	
AllWayAvgQ:	11.3	11.3	11.3	60.7	60.7	60.7	4.8	4.8	4.8	2.7	2.7	2.7

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #19 Blaney Avenue/Merritt Drive

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0
Initial Vol:	12	207	11	119	380	62	53	28	31	6	8	58

Major Street Volume: 791
Minor Approach Volume: 112
Minor Approach Volume Threshold: 282

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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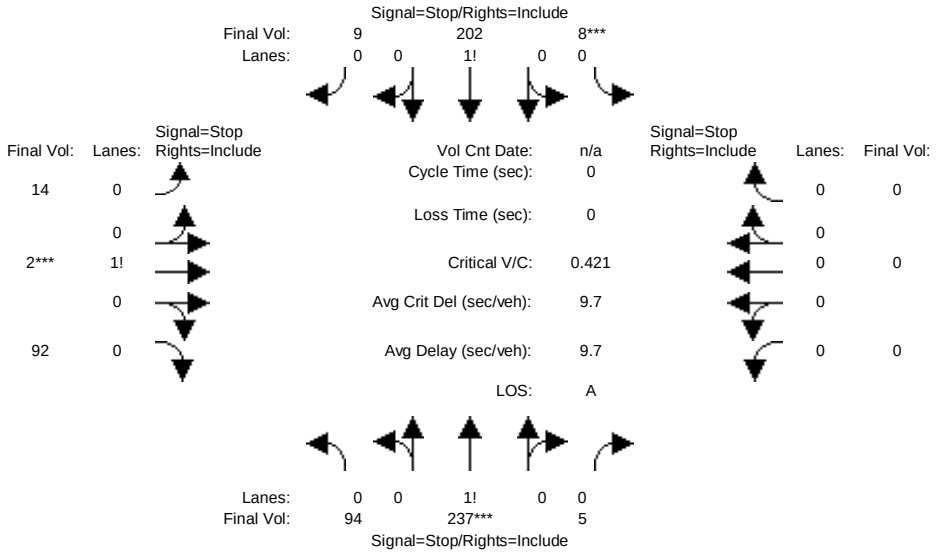
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #20: Blaney Avenue/Forest Avenue



Street Name:	Blaney Avenue						Forest Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	94	225	5	8	162	9	14	2	92	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	94	225	5	8	162	9	14	2	92	0	0	0
Added Vol:	0	12	0	0	40	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	94	237	5	8	202	9	14	2	92	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:	94	237	5	8	202	9	14	2	92	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	94	237	5	8	202	9	14	2	92	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:	94	237	5	8	202	9	14	2	92	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.28	0.71	0.01	0.04	0.92	0.04	0.13	0.02	0.85	0.00	0.00	0.00
Final Sat.:	223	563	12	29	721	32	94	13	615	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.42	0.42	0.42	0.28	0.28	0.28	0.15	0.15	0.15	xxxx	xxxx	xxxx
Crit Moves:		****		****				****				
Delay/Veh:	10.5	10.5	10.5	9.2	9.2	9.2	8.3	8.3	8.3	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
AdjDel/Veh:	10.5	10.5	10.5	9.2	9.2	9.2	8.3	8.3	8.3	0.0	0.0	0.0
LOS by Move:	B	B	B	A	A	A	A	A	A	*	*	*
ApproachDel:	10.5			9.2			8.3			xxxxxx		
Delay Adj:	1.00			1.00			1.00			xxxxx		
ApprAdjDel:	10.5			9.2			8.3			xxxxxx		
LOS by Appr:	B			A			A			*		
AllWayAvgQ:	17.1	17.1	17.1	9.1	9.1	9.1	3.6	3.6	3.6	0.0	0.0	0.0

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #20 Blaney Avenue/Forest Avenue

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0	0 0 0	0	0
Initial Vol:	94	237	5	8	202	9	14	2	92	0	0	0

Major Street Volume: 555
Minor Approach Volume: 108
Minor Approach Volume Threshold: 376

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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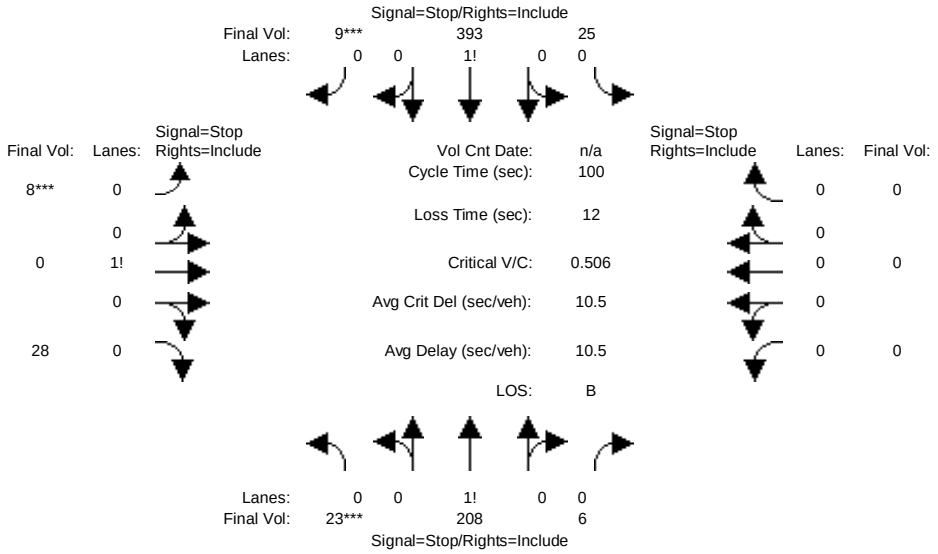
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #20: Blaney Avenue/Forest Avenue



Street Name:	Blaney Avenue						Forest Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	23	164	6	25	371	9	8	0	28	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	23	164	6	25	371	9	8	0	28	0	0	0
Added Vol:	0	44	0	0	22	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	23	208	6	25	393	9	8	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:	23	208	6	25	393	9	8	0	28	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	208	6	25	393	9	8	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
FinalVolume:	23	208	6	25	393	9	8	0	28	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.10	0.88	0.02	0.06	0.92	0.02	0.22	0.00	0.78	0.00	0.00	0.00
Final Sat.:	78	706	20	49	777	18	149	0	523	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.29	0.29	0.29	0.51	0.51	0.51	0.05	xxxx	0.05	xxxx	xxxx	xxxx
Crit Moves:	****					****	****					
Delay/Veh:	9.2	9.2	9.2	11.4	11.4	11.4	8.0	0.0	8.0	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
AdjDel/Veh:	9.2	9.2	9.2	11.4	11.4	11.4	8.0	0.0	8.0	0.0	0.0	0.0
LOS by Move:	A	A	A	B	B	B	A	*	A	*	*	*
ApproachDel:	9.2			11.4			8.0			xxxxxx		
Delay Adj:	1.00			1.00			1.00			xxxxx		
ApprAdjDel:	9.2			11.4			8.0			xxxxxx		
LOS by Appr:	A			B			A			*		
AllWayAvgQ:	9.9	9.9	9.9	24.4	24.4	24.4	1.1	1.1	1.1	0.0	0.0	0.0

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #20 Blaney Avenue/Forest Avenue

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1!	0		0 0 1!	0		0 0 1!	0		0 0	0	0 0
Initial Vol:	23	208	6	25	393	9	8	0	28	0	0	0

Major Street Volume: 664
Minor Approach Volume: 36
Minor Approach Volume Threshold: 329

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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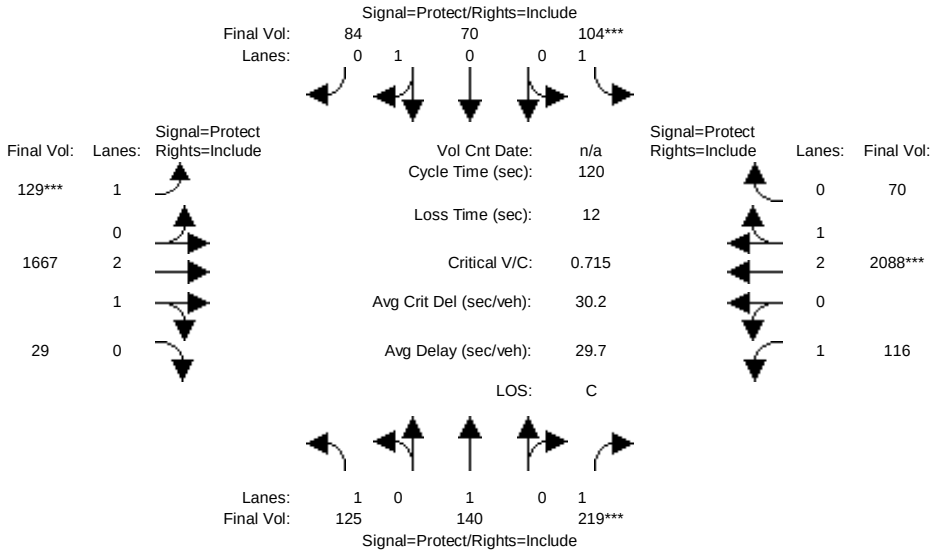
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #21: Stevens Creek Boulevard/Blaney Avenue



Street Name:	Blaney Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	125	140	179	64	70	84	129	1033	29	104	1908	58
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	125	140	179	64	70	84	129	1033	29	104	1908	58
Added Vol:	0	0	40	40	0	0	0	634	0	12	180	12
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	125	140	219	104	70	84	129	1667	29	116	2088	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:	125	140	219	104	70	84	129	1667	29	116	2088	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	125	140	219	104	70	84	129	1667	29	116	2088	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:	125	140	219	104	70	84	129	1667	29	116	2088	70
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	1.00	1.00	1.00	0.45	0.55	1.00	2.95	0.05	1.00	2.90	0.10
Final Sat.:	1750	1900	1750	1750	818	982	1750	5504	96	1750	5418	182
Capacity Analysis Module:												
Vol/Sat:	0.07	0.07	0.13	0.06	0.09	0.09	0.07	0.30	0.30	0.07	0.39	0.39
Crit Moves:			****	****			****				****	
Green Time:	14.1	21.0	21.0	10.0	16.9	16.9	12.4	63.2	63.2	13.8	64.7	64.7
Volume/Cap:	0.61	0.42	0.72	0.72	0.61	0.61	0.72	0.58	0.58	0.58	0.72	0.72
Uniform Del:	50.3	44.1	46.7	53.6	48.5	48.5	52.1	19.3	19.3	50.3	20.8	20.8
IncremntDel:	12.7	3.9	13.4	25.9	10.4	10.4	21.5	0.8	0.8	11.4	1.5	1.5
InitQueuDel:	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	48.0	60.0	79.5	58.9	58.9	73.6	20.1	20.1	61.7	22.2	22.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	63.0	48.0	60.0	79.5	58.9	58.9	73.6	20.1	20.1	61.7	22.2	22.2
LOS by Move:	E	D	E	E-	E+	E+	E	C+	C+	E	C+	C+
HCM2kAvgQ:	142	122	240	139	162	162	162	359	359	130	517	517

Note: Queue reported is the distance per lane in feet.

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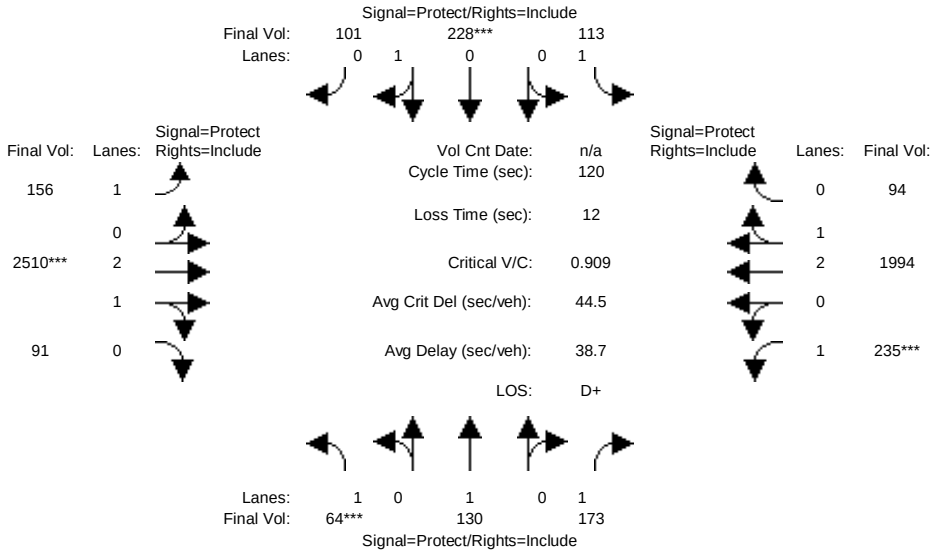
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #21: Stevens Creek Boulevard/Blaney Avenue



Street Name:	Blaney Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	64	130	151	91	228	101	156	2159	91	191	1323	50
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	64	130	151	91	228	101	156	2159	91	191	1323	50
Added Vol:	0	0	22	22	0	0	0	351	0	44	671	44
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	64	130	173	113	228	101	156	2510	91	235	1994	94
User Adj:	1.00	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	130	173	113	228	101	156	2510	91	235	1994	94
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	64	130	173	113	228	101	156	2510	91	235	1994	94
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	130	173	113	228	101	156	2510	91	235	1994	94
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	1.00	1.00	1.00	0.69	0.31	1.00	2.89	0.11	1.00	2.86	0.14
Final Sat.:	1750	1900	1750	1750	1247	553	1750	5404	196	1750	5348	252
Capacity Analysis Module:												
Vol/Sat:	0.04	0.07	0.10	0.06	0.18	0.18	0.09	0.46	0.46	0.13	0.37	0.37
Crit Moves:	****				****			****			****	
Green Time:	7.0	18.5	18.5	12.1	23.6	23.6	14.9	60.0	60.0	17.4	62.4	62.4
Volume/Cap:	0.63	0.44	0.64	0.64	0.93	0.93	0.72	0.93	0.93	0.93	0.72	0.72
Uniform Del:	55.2	46.1	47.6	51.9	47.4	47.4	50.5	28.0	28.0	50.7	22.0	22.0
IncremntDel:	25.7	4.8	11.1	16.5	32.7	32.7	18.3	6.9	6.9	40.8	1.5	1.5
InitQueuDel:	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:	80.9	50.9	58.7	68.4	80.1	80.1	68.8	34.9	34.9	91.5	23.5	23.5
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:	80.9	50.9	58.7	68.4	80.1	80.1	68.8	34.9	34.9	91.5	23.5	23.5
LOS by Move:	F	D	E+	E	F	F	E	C-	C-	F	C	C
HCM2kAvgQ:	90	118	187	136	413	413	187	863	863	324	511	511

Note: Queue reported is the distance per lane in feet.

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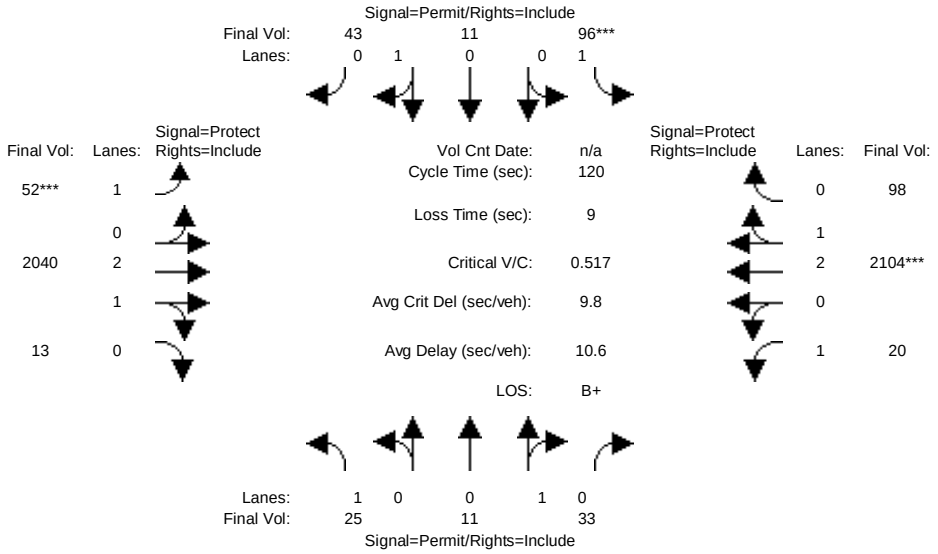
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #22: Stevens Creek Boulevard/Portal Avenue



Street Name:	Portal Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	25	11	33	96	11	43	52	1326	13	20	1901	98
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	11	33	96	11	43	52	1326	13	20	1901	98
Added Vol:	0	0	0	0	0	0	0	714	0	0	203	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	25	11	33	96	11	43	52	2040	13	20	2104	98
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	25	11	33	96	11	43	52	2040	13	20	2104	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	11	33	96	11	43	52	2040	13	20	2104	98
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	25	11	33	96	11	43	52	2040	13	20	2104	98
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	0.25	0.75	1.00	0.20	0.80	1.00	2.98	0.02	1.00	2.86	0.14
Final Sat.:	1750	450	1350	1750	367	1433	1750	5564	35	1750	5350	249
Capacity Analysis Module:												
Vol/Sat:	0.01	0.02	0.02	0.05	0.03	0.03	0.03	0.37	0.37	0.01	0.39	0.39
Crit Moves:				****			****				****	
Green Time:	12.7	12.7	12.7	12.7	12.7	12.7	7.0	84.8	84.8	13.5	91.3	91.3
Volume/Cap:	0.13	0.23	0.23	0.52	0.28	0.28	0.51	0.52	0.52	0.10	0.52	0.52
Uniform Del:	48.6	49.1	49.1	50.7	49.4	49.4	54.8	8.2	8.2	47.8	5.7	5.7
IncremntDel:	1.5	2.8	2.8	9.9	3.7	3.7	17.0	0.5	0.5	1.0	0.5	0.5
InitQueuDel:	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:	50.1	51.9	51.9	60.7	53.1	53.1	71.8	8.7	8.7	48.8	6.1	6.1
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:	50.1	51.9	51.9	60.7	53.1	53.1	71.8	8.7	8.7	48.8	6.1	6.1
LOS by Move:	D	D-	D-	E	D-	D-	E	A	A	D	A	A
HCM2kAvgQ:	24	43	43	107	53	53	69	296	296	19	272	272

Note: Queue reported is the distance per lane in feet.

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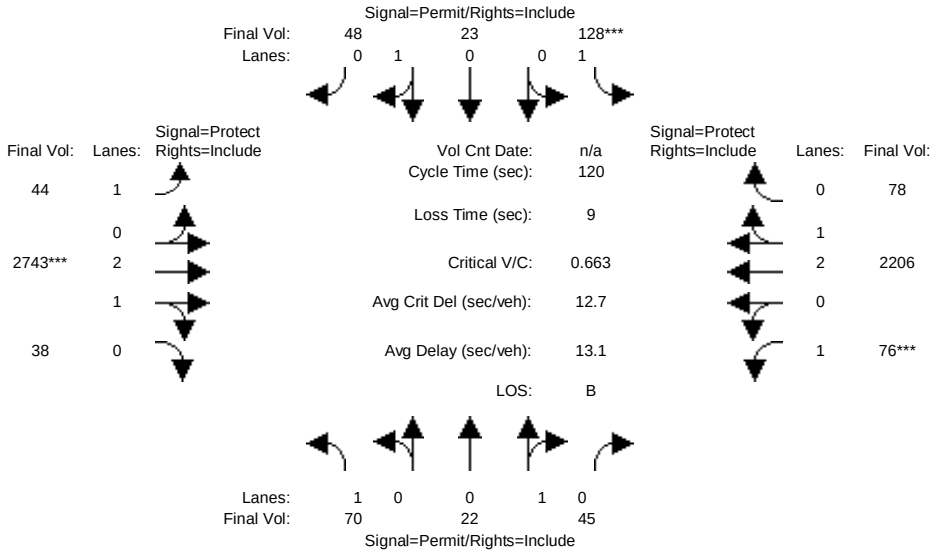
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #22: Stevens Creek Boulevard/Portal Avenue



Street Name:	Portal Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	70	22	45	128	23	48	44	2348	38	76	1448	78
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	70	22	45	128	23	48	44	2348	38	76	1448	78
Added Vol:	0	0	0	0	0	0	0	395	0	0	758	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	70	22	45	128	23	48	44	2743	38	76	2206	78
User Adj:	1.00	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:	70	22	45	128	23	48	44	2743	38	76	2206	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	70	22	45	128	23	48	44	2743	38	76	2206	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	70	22	45	128	23	48	44	2743	38	76	2206	78
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	0.33	0.67	1.00	0.32	0.68	1.00	2.96	0.04	1.00	2.89	0.11
Final Sat.:	1750	591	1209	1750	583	1217	1750	5523	77	1750	5409	191
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.04	0.07	0.04	0.04	0.03	0.50	0.50	0.04	0.41	0.41
Crit Moves:				****				****		****		
Green Time:	13.2	13.2	13.2	13.2	13.2	13.2	12.2	89.9	89.9	7.9	85.5	85.5
Volume/Cap:	0.36	0.34	0.34	0.66	0.36	0.36	0.25	0.66	0.66	0.66	0.57	0.57
Uniform Del:	49.5	49.3	49.3	51.2	49.4	49.4	49.6	7.5	7.5	54.8	8.4	8.4
IncremntDel:	5.2	4.5	4.5	16.5	5.0	5.0	3.3	0.8	0.8	26.3	0.6	0.6
InitQueuDel:	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:	54.7	53.9	53.9	67.8	54.4	54.4	52.9	8.3	8.3	81.1	9.0	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:	54.7	53.9	53.9	67.8	54.4	54.4	52.9	8.3	8.3	81.1	9.0	9.0
LOS by Move:	D-	D-	D-	E	D-	D-	D-	A	A	F	A	A
HCM2kAvgQ:	72	67	67	153	71	71	45	439	439	105	346	346

Note: Queue reported is the distance per lane in feet.

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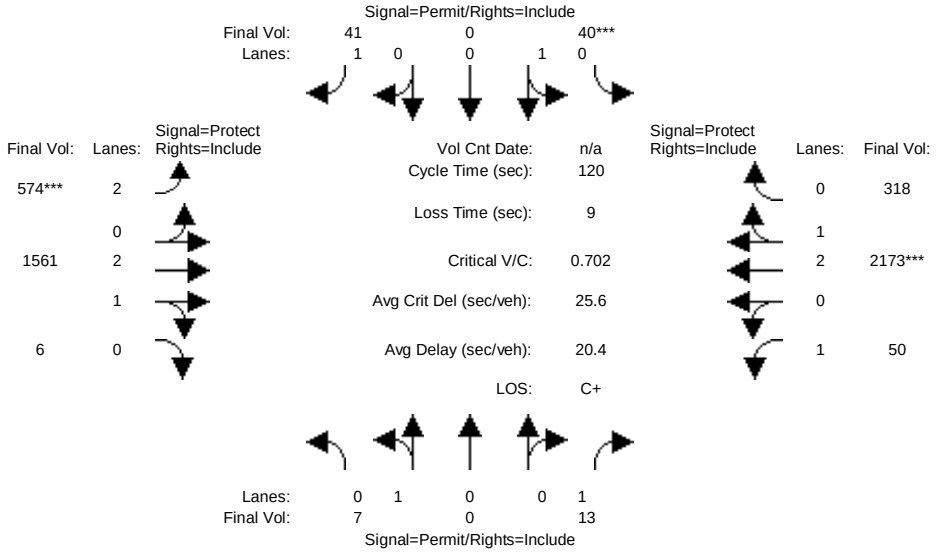
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #23: Stevens Creek Boulevard/Perimeter Road



Street Name:	Perimeter Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	31	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	7	0	13	40	0	41	574	1561	6	50	2173	318
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	7	0	13	40	0	41	574	1561	6	50	2173	318
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:	7	0	13	40	0	41	574	1561	6	50	2173	318
User Adj:	1.00	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:	7	0	13	40	0	41	574	1561	6	50	2173	318
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	0	13	40	0	41	574	1561	6	50	2173	318
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	7	0	13	40	0	41	574	1561	6	50	2173	318
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.95	0.95	0.92	0.83	0.98	0.95	0.92	0.99	0.95
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	2.00	2.99	0.01	1.00	2.60	0.40
Final Sat.:	1800	0	1750	1800	0	1750	3150	5579	21	1750	4884	715
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.01	0.02	0.00	0.02	0.18	0.28	0.28	0.03	0.44	0.44
Crit Moves:				****			****				****	
Green Time:	10.0	0.0	10.0	10.0	0.0	10.0	31.0	83.6	83.6	17.4	70.0	70.0
Volume/Cap:	0.05	0.00	0.09	0.27	0.00	0.28	0.71	0.40	0.40	0.20	0.76	0.76
Uniform Del:	50.6	0.0	50.8	51.6	0.0	51.6	40.4	7.7	7.7	45.1	18.8	18.8
IncremntDel:	0.6	0.0	1.2	4.3	0.0	4.8	5.1	0.3	0.3	1.7	1.7	1.7
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	51.2	0.0	52.0	55.9	0.0	56.4	45.5	8.0	8.0	46.9	20.5	20.5
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:	51.2	0.0	52.0	55.9	0.0	56.4	45.5	8.0	8.0	46.9	20.5	20.5
LOS by Move:	D-	A	D-	E+	A	E+	D	A	A	D	C+	C+
HCM2kAvgQ:	7	0	13	42	0	44	315	203	203	40	539	539

Note: Queue reported is the distance per lane in feet.

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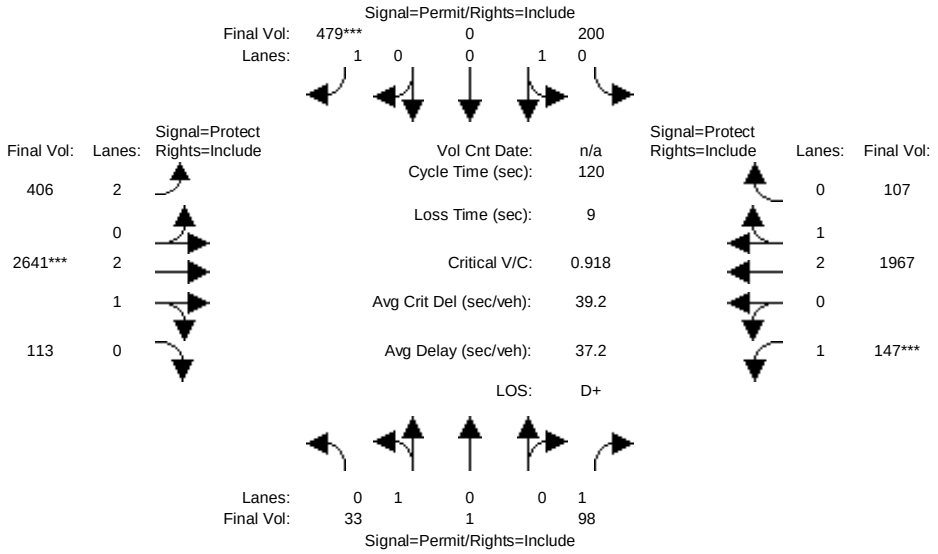
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #23: Stevens Creek Boulevard/Perimeter Road



Street Name:	Perimeter Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	33	1	98	200	0	479	406	2641	113	147	1967	107
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	33	1	98	200	0	479	406	2641	113	147	1967	107
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:	33	1	98	200	0	479	406	2641	113	147	1967	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	33	1	98	200	0	479	406	2641	113	147	1967	107
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	1	98	200	0	479	406	2641	113	147	1967	107
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	33	1	98	200	0	479	406	2641	113	147	1967	107
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.95	0.95	0.92	0.83	0.98	0.95	0.92	0.98	0.95
Lanes:	0.97	0.03	1.00	1.00	0.00	1.00	2.00	2.87	0.13	1.00	2.84	0.16
Final Sat.:	1747	53	1750	1800	0	1750	3150	5370	230	1750	5311	289
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.06	0.11	0.00	0.27	0.13	0.49	0.49	0.08	0.37	0.37
Crit Moves:						****		****		****		
Green Time:	35.8	35.8	35.8	35.8	0.0	35.8	19.4	64.3	64.3	11.0	55.8	55.8
Volume/Cap:	0.06	0.06	0.19	0.37	0.00	0.92	0.80	0.92	0.92	0.92	0.80	0.80
Uniform Del:	30.1	30.1	31.3	33.3	0.0	40.7	48.4	25.5	25.5	54.1	27.3	27.3
IncremntDel:	0.2	0.2	0.8	2.0	0.0	23.6	12.2	5.8	5.8	52.2	2.6	2.6
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	30.4	30.4	32.1	35.2	0.0	64.3	60.6	31.3	31.3	106.3	29.9	29.9
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:	30.4	30.4	32.1	35.2	0.0	64.3	60.6	31.3	31.3	106.3	29.9	29.9
LOS by Move:	C	C	C-	D+	A	E	E	C	C	F	C	C
HCM2kAvgQ:	23	23	72	154	0	561	268	882	882	156	535	535

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
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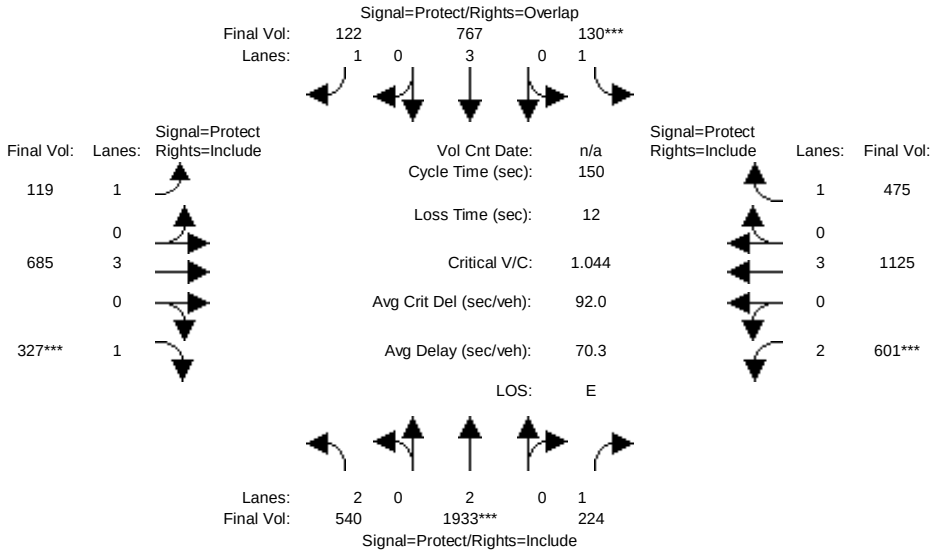
Intersection #24: Wolfe Road/El Camino Real



Street Name:	Wolfe Road						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	30	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	532	1925	212	130	740	122	119	685	300	561	1125	475
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	532	1925	212	130	740	122	119	685	300	561	1125	475
Added Vol:	8	8	12	0	27	0	0	0	27	40	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	540	1933	224	130	767	122	119	685	327	601	1125	475
User Adj:	1.00	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:	540	1933	224	130	767	122	119	685	327	601	1125	475
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	540	1933	224	130	767	122	119	685	327	601	1125	475
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	540	1933	224	130	767	122	119	685	327	601	1125	475
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3150	3800	1750	1750	5700	1750	1750	5700	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.17	0.51	0.13	0.07	0.13	0.07	0.07	0.12	0.19	0.19	0.20	0.27
Crit Moves:		****		****					****	****		
Green Time:	45.8	71.4	71.4	10.4	36.0	47.2	11.3	26.2	26.2	30.0	45.0	45.0
Volume/Cap:	0.56	1.07	0.27	1.07	0.56	0.22	0.91	0.69	1.07	0.95	0.66	0.91
Uniform Del:	43.7	39.3	23.6	69.8	50.1	37.8	68.8	58.1	61.9	59.3	45.8	50.5
IncremntDel:	2.4	42.4	0.8	101.4	1.7	0.9	56.5	3.9	71.0	26.2	2.0	21.8
InitQueuDel:	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	81.7	24.4	171.2	51.8	38.8	125.3	61.9	132.9	85.5	47.8	72.3
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:	46.0	81.7	24.4	171.2	51.8	38.8	125.3	61.9	132.9	85.5	47.8	72.3
LOS by Move:	D	F	C	F	D-	D+	F	E	F	F	D	E
HCM2kAvgQ:	315	1396	161	267	264	109	215	271	576	516	386	650

Note: Queue reported is the distance per lane in feet.

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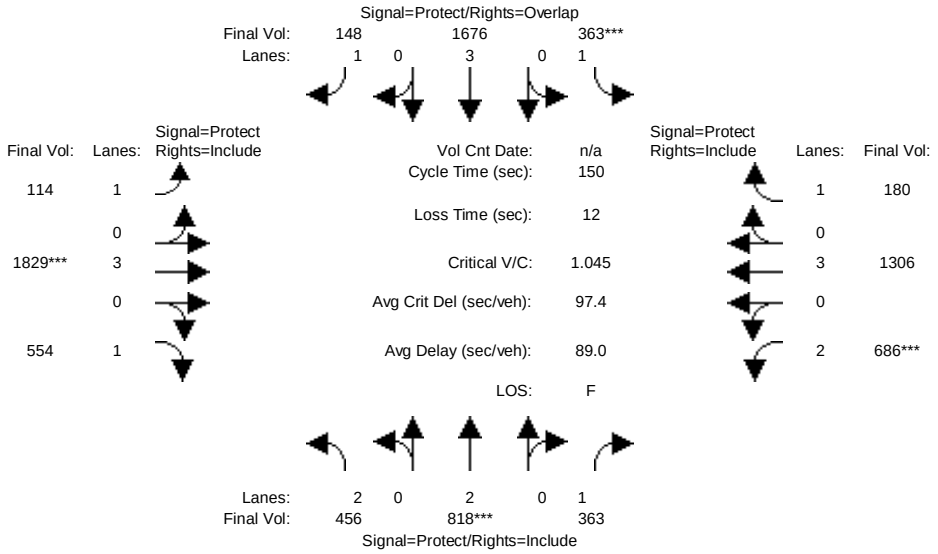
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #24: Wolfe Road/El Camino Real



Street Name:	Wolfe Road						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	427	789	319	363	1661	148	114	1829	539	664	1306	180
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	427	789	319	363	1661	148	114	1829	539	664	1306	180
Added Vol:	29	29	44	0	15	0	0	0	15	22	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	456	818	363	363	1676	148	114	1829	554	686	1306	180
User Adj:	1.00	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:	456	818	363	363	1676	148	114	1829	554	686	1306	180
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	456	818	363	363	1676	148	114	1829	554	686	1306	180
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	456	818	363	363	1676	148	114	1829	554	686	1306	180
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3150	3800	1750	1750	5700	1750	1750	5700	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.14	0.22	0.21	0.21	0.29	0.08	0.07	0.32	0.32	0.22	0.23	0.10
Crit Moves:		****		****				****		****		
Green Time:	20.0	30.9	30.9	29.8	40.7	57.8	17.1	46.1	46.1	31.3	60.2	60.2
Volume/Cap:	1.08	1.04	1.01	1.04	1.08	0.22	0.57	1.04	1.03	1.04	0.57	0.26
Uniform Del:	65.0	59.5	59.5	60.1	54.7	31.0	63.0	52.0	52.0	59.4	34.9	30.0
IncremntDel:	68.6	44.5	49.1	60.5	49.6	0.7	11.3	34.3	47.0	47.4	1.0	0.9
InitQueuDel:	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:	133.6	104	108.7	120.6	104	31.7	74.3	86.3	99.0	106.8	35.9	30.8
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:	133.6	104	108.7	120.6	104	31.7	74.3	86.3	99.0	106.8	35.9	30.8
LOS by Move:	F	F	F	F	F	C	E	F	F	F	D+	C
HCM2kAvgQ:	470	634	590	614	870	119	152	898	873	641	384	144

Note: Queue reported is the distance per lane in feet.

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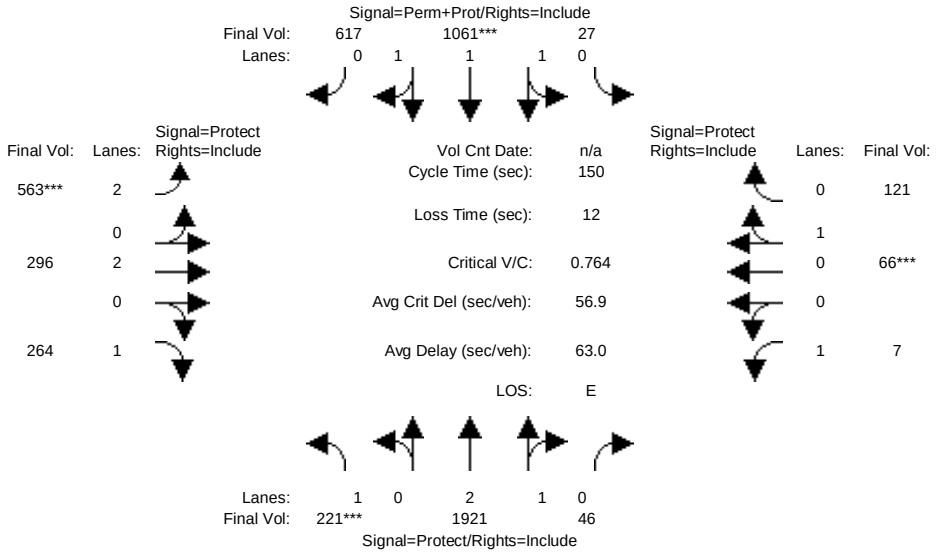
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #25: Wolfe Road/Fremont Avenue



Street Name:	Wolfe Road						Fremont Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	217	1894	46	27	968	617	563	296	251	7	66	121
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	217	1894	46	27	968	617	563	296	251	7	66	121
Added Vol:	4	27	0	0	93	0	0	0	13	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	221	1921	46	27	1061	617	563	296	264	7	66	121
User Adj:	1.00	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:	221	1921	46	27	1061	617	563	296	264	7	66	121
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	221	1921	46	27	1061	617	563	296	264	7	66	121
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	221	1921	46	27	1061	617	563	296	264	7	66	121
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.95	0.98	0.95	0.83	1.00	0.92	0.92	0.95	0.95
Lanes:	1.00	2.93	0.07	0.05	1.95	1.00	2.00	2.00	1.00	1.00	0.35	0.65
Final Sat.:	1750	5469	131	92	3612	1800	3150	3800	1750	1750	635	1165
Capacity Analysis Module:												
Vol/Sat:	0.13	0.35	0.35	0.00	0.29	0.34	0.18	0.08	0.15	0.00	0.10	0.10
Crit Moves:	****				****		****				****	
Green Time:	25.8	52.3	52.3	46.7	70.1	70.1	26.6	32.1	32.1	9.9	15.5	15.5
Volume/Cap:	0.73	1.01	1.01	0.94	0.63	0.73	1.01	0.36	0.70	0.06	1.01	1.01
Uniform Del:	58.8	48.9	48.9	50.4	30.1	32.4	61.7	50.2	54.6	65.7	67.3	67.3
IncremntDel:	14.6	22.4	22.4	11.5	1.1	2.1	40.1	1.3	10.6	1.0	68.2	68.2
InitQueuDel:	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:	73.5	71.3	71.3	61.8	31.2	34.5	101.8	51.5	65.2	66.7	136	135.5
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:	73.5	71.3	71.3	61.8	31.2	34.5	101.8	51.5	65.2	66.7	136	135.5
LOS by Move:	E	E	E	E	C	C-	F	D-	E	E	F	F
HCM2kAvgQ:	294	932	932	730	479	613	521	145	329	9	332	332

Note: Queue reported is the distance per lane in feet.

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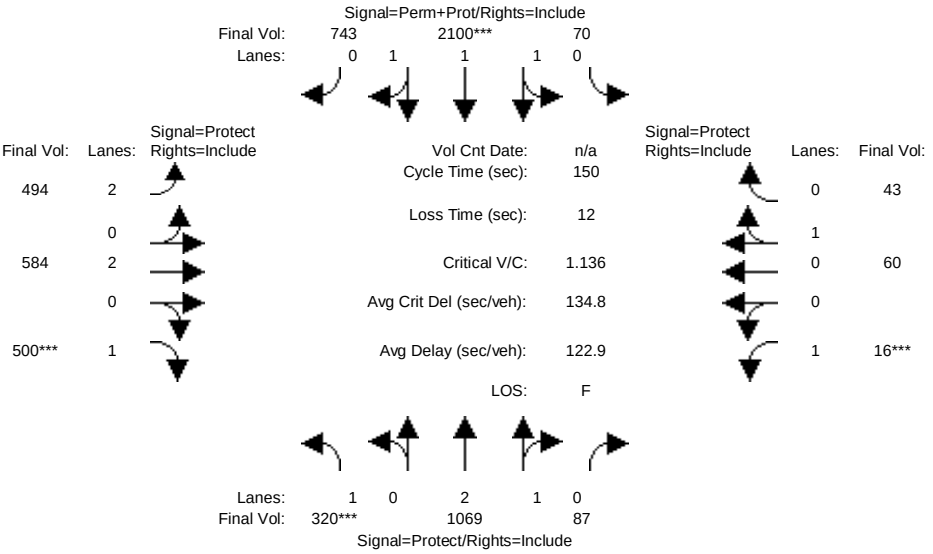
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #25: Wolfe Road/Fremont Avenue



Street Name:	Wolfe Road						Fremont Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	28	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	305	967	87	70	2048	743	494	584	493	16	60	43
Growth Adj:	1.00	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	967	87	70	2048	743	494	584	493	16	60	43
Added Vol:	15	102	0	0	52	0	0	0	7	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	320	1069	87	70	2100	743	494	584	500	16	60	43
User Adj:	1.00	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:	320	1069	87	70	2100	743	494	584	500	16	60	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	320	1069	87	70	2100	743	494	584	500	16	60	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	320	1069	87	70	2100	743	494	584	500	16	60	43
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.95	0.97	0.95	0.83	1.00	0.92	0.92	0.95	0.95
Lanes:	1.00	2.77	0.23	0.07	2.15	0.78	2.00	2.00	1.00	1.00	0.58	0.42
Final Sat.:	1750	5178	421	132	3964	1403	3150	3800	1750	1750	1049	751
Capacity Analysis Module:												
Vol/Sat:	0.18	0.21	0.21	0.00	0.53	0.53	0.16	0.15	0.29	0.01	0.06	0.06
Crit Moves:	****				****				****	****		
Green Time:	28.0	26.5	26.5	70.9	66.4	66.4	30.6	36.6	36.6	7.0	13.0	13.0
Volume/Cap:	0.98	1.17	1.17	1.12	1.20	1.20	0.77	0.63	1.17	0.20	0.66	0.66
Uniform Del:	60.7	61.8	61.8	39.5	41.8	41.8	56.3	50.6	56.7	68.8	66.3	66.3
IncremntDel:	44.9	87.5	87.5	60.1	93.0	93.0	8.6	3.2	99.0	5.3	19.8	19.8
InitQueuDel:	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:	105.6	149	149.3	99.6	135	134.8	64.9	53.9	155.6	74.1	86.1	86.1
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:	105.6	149	149.3	99.6	135	134.8	64.9	53.9	155.6	74.1	86.1	86.1
LOS by Move:	F	F	F	F	F	F	E	D-	F	E	F	F
HCM2kAvgQ:	514	694	694	1545	1689	1689	360	311	929	23	149	149

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
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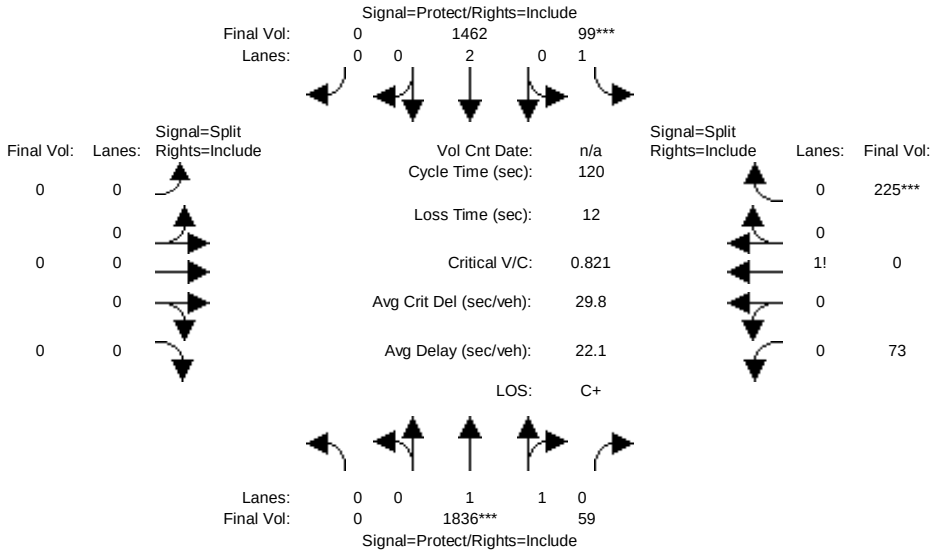
Intersection #26: Wolfe Road/Marion Way



Street Name:	Wolfe Road						Marion Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1805	59	99	1356	0	0	0	0	73	0	225
Growth Adj:	1.00	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	1805	59	99	1356	0	0	0	0	73	0	225
Added Vol:	0	31	0	0	106	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1836	59	99	1462	0	0	0	0	73	0	225
User Adj:	1.00	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	1836	59	99	1462	0	0	0	0	73	0	225
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1836	59	99	1462	0	0	0	0	73	0	225
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1836	59	99	1462	0	0	0	0	73	0	225
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	0.00	1.94	0.06	1.00	2.00	0.00	0.00	0.00	0.00	0.24	0.00	0.76
Final Sat.:	0	3585	115	1750	3800	0	0	0	0	429	0	1321
Capacity Analysis Module:												
Vol/Sat:	0.00	0.51	0.51	0.06	0.38	0.00	0.00	0.00	0.00	0.17	0.00	0.17
Crit Moves:		****		****								****
Green Time:	0.0	74.8	74.8	8.3	83.1	0.0	0.0	0.0	0.0	24.9	0.0	24.9
Volume/Cap:	0.00	0.82	0.82	0.82	0.56	0.00	0.00	0.00	0.00	0.82	0.00	0.82
Uniform Del:	0.0	17.4	17.4	55.1	9.2	0.0	0.0	0.0	0.0	45.4	0.0	45.4
IncremntDel:	0.0	3.4	3.4	44.2	0.9	0.0	0.0	0.0	0.0	18.5	0.0	18.5
InitQueuDel:	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	20.8	20.8	99.4	10.1	0.0	0.0	0.0	0.0	63.9	0.0	63.9
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	20.8	20.8	99.4	10.1	0.0	0.0	0.0	0.0	63.9	0.0	63.9
LOS by Move:	A	C+	C+	F	B+	A	A	A	A	E	A	E
HCM2kAvgQ:	0	725	725	150	335	0	0	0	0	341	0	341

Note: Queue reported is the distance per lane in feet.

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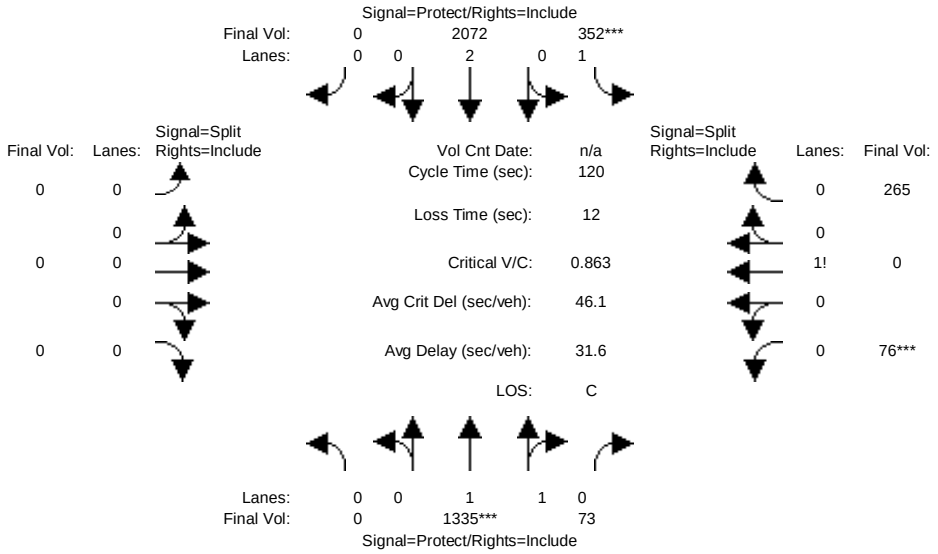
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #26: Wolfe Road/Marion Way



Street Name:	Wolfe Road						Marion Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1219	73	352	2013	0	0	0	0	76	0	265
Growth Adj:	1.00	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	1219	73	352	2013	0	0	0	0	76	0	265
Added Vol:	0	116	0	0	59	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1335	73	352	2072	0	0	0	0	76	0	265
User Adj:	1.00	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	1335	73	352	2072	0	0	0	0	76	0	265
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1335	73	352	2072	0	0	0	0	76	0	265
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1335	73	352	2072	0	0	0	0	76	0	265
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	0.00	1.89	0.11	1.00	2.00	0.00	0.00	0.00	0.00	0.22	0.00	0.78
Final Sat.:	0	3508	192	1750	3800	0	0	0	0	390	0	1360
Capacity Analysis Module:												
Vol/Sat:	0.00	0.38	0.38	0.20	0.55	0.00	0.00	0.00	0.00	0.19	0.00	0.19
Crit Moves:		****		****						****		
Green Time:	0.0	52.9	52.9	28.0	80.9	0.0	0.0	0.0	0.0	27.1	0.0	27.1
Volume/Cap:	0.00	0.86	0.86	0.86	0.81	0.00	0.00	0.00	0.00	0.86	0.00	0.86
Uniform Del:	0.0	30.3	30.3	44.2	14.0	0.0	0.0	0.0	0.0	44.7	0.0	44.7
IncremntDel:	0.0	6.3	6.3	20.8	2.9	0.0	0.0	0.0	0.0	21.3	0.0	21.3
InitQueuDel:	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	36.6	36.6	64.9	16.9	0.0	0.0	0.0	0.0	66.0	0.0	66.0
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	36.6	36.6	64.9	16.9	0.0	0.0	0.0	0.0	66.0	0.0	66.0
LOS by Move:	A	D+	D+	E	B	A	A	A	A	E	A	E
HCM2kAvgQ:	0	662	662	408	713	0	0	0	0	398	0	398

Note: Queue reported is the distance per lane in feet.

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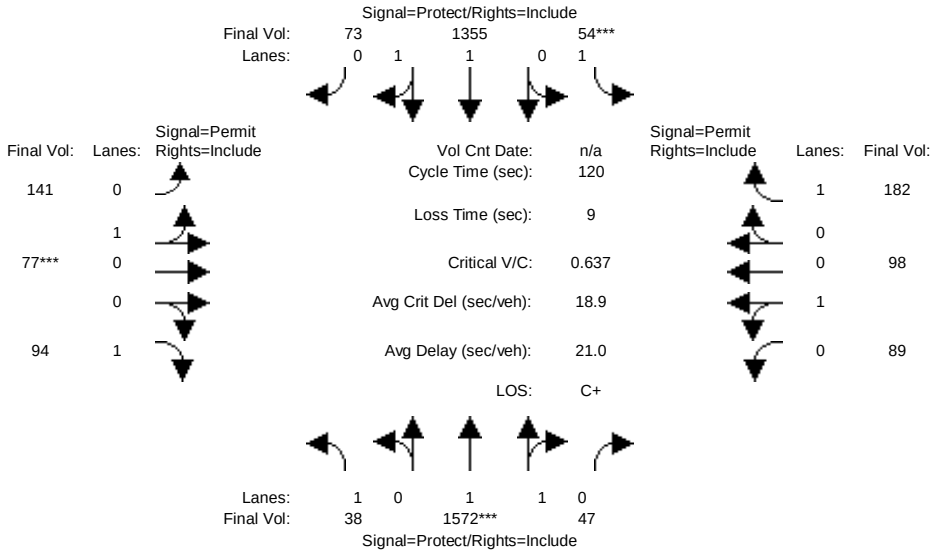
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #27: Wolfe Road/Iverness Avenue



Street Name:	Wolfe Road						Iverness Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	34	1541	43	54	1249	73	141	77	79	77	98	182
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	34	1541	43	54	1249	73	141	77	79	77	98	182
Added Vol:	4	31	4	0	106	0	0	0	15	12	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	38	1572	47	54	1355	73	141	77	94	89	98	182
User Adj:	1.00	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:	38	1572	47	54	1355	73	141	77	94	89	98	182
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	1572	47	54	1355	73	141	77	94	89	98	182
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	38	1572	47	54	1355	73	141	77	94	89	98	182
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.94	0.06	1.00	1.89	0.11	0.65	0.35	1.00	0.48	0.52	1.00
Final Sat.:	1750	3593	107	1750	3511	189	1164	636	1750	857	943	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.44	0.44	0.03	0.39	0.39	0.12	0.12	0.05	0.10	0.10	0.10
Crit Moves:		****		****				****				
Green Time:	11.6	81.5	81.5	7.0	76.8	76.8	22.5	22.5	22.5	22.5	22.5	22.5
Volume/Cap:	0.22	0.64	0.64	0.53	0.60	0.60	0.64	0.64	0.29	0.55	0.55	0.55
Uniform Del:	50.0	11.0	11.0	54.9	12.6	12.6	45.0	45.0	41.8	44.2	44.2	44.2
IncremntDel:	3.0	1.3	1.3	18.2	1.1	1.1	9.1	9.1	2.2	6.4	6.4	6.6
InitQueuDel:	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:	53.1	12.3	12.3	73.1	13.8	13.8	54.2	54.2	44.0	50.5	50.5	50.7
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:	53.1	12.3	12.3	73.1	13.8	13.8	54.2	54.2	44.0	50.5	50.5	50.7
LOS by Move:	D-	B	B	E	B	B	D-	D-	D	D	D	D
HCM2kAvgQ:	39	440	440	72	395	395	218	218	83	178	178	179

Note: Queue reported is the distance per lane in feet.

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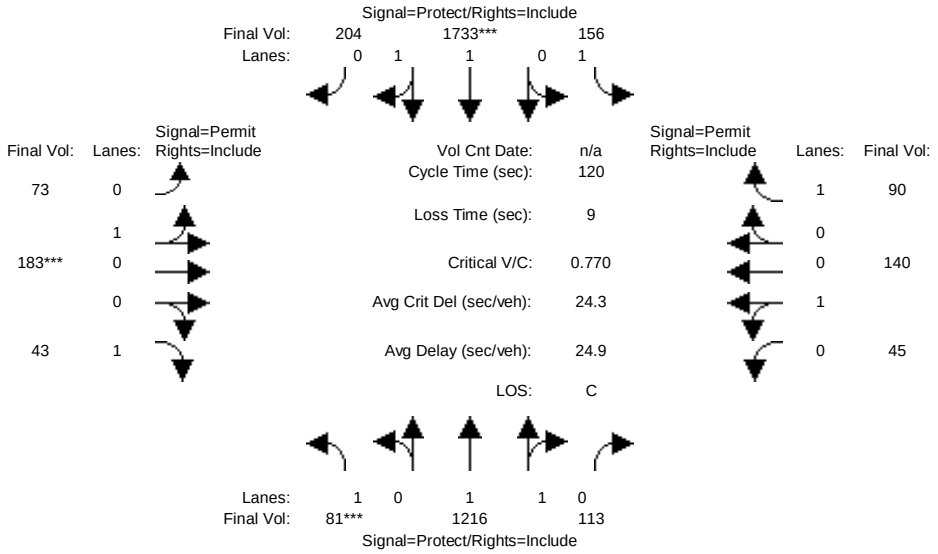
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #27: Wolfe Road/Iverness Avenue



Street Name:	Wolfe Road						Iverness Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	66	1100	98	156	1674	204	73	183	35	38	140	90
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	66	1100	98	156	1674	204	73	183	35	38	140	90
Added Vol:	15	116	15	0	59	0	0	0	8	7	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	81	1216	113	156	1733	204	73	183	43	45	140	90
User Adj:	1.00	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	1216	113	156	1733	204	73	183	43	45	140	90
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	1216	113	156	1733	204	73	183	43	45	140	90
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1216	113	156	1733	204	73	183	43	45	140	90
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.83	0.17	1.00	1.78	0.22	0.29	0.71	1.00	0.24	0.76	1.00
Final Sat.:	1750	3385	315	1750	3310	390	513	1287	1750	438	1362	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.36	0.36	0.09	0.52	0.52	0.14	0.14	0.02	0.10	0.10	0.05
Crit Moves:	****				****			****				
Green Time:	10.0	71.6	71.6	17.8	79.4	79.4	21.6	21.6	21.6	21.6	21.6	21.6
Volume/Cap:	0.56	0.60	0.60	0.60	0.79	0.79	0.79	0.79	0.14	0.57	0.57	0.29
Uniform Del:	52.9	15.2	15.2	47.8	14.4	14.4	47.1	47.1	41.4	45.0	45.0	42.6
IncremntDel:	14.4	1.2	1.2	9.9	2.7	2.7	17.7	17.7	0.9	7.2	7.2	2.3
InitQueuDel:	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:	67.2	16.4	16.4	57.7	17.1	17.1	64.8	64.8	42.3	52.1	52.1	44.8
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:	67.2	16.4	16.4	57.7	17.1	17.1	64.8	64.8	42.3	52.1	52.1	44.8
LOS by Move:	E	B	B	E+	B	B	E	E	D	D-	D-	D
HCM2kAvgQ:	98	394	394	166	674	674	287	287	37	180	180	80

Note: Queue reported is the distance per lane in feet.

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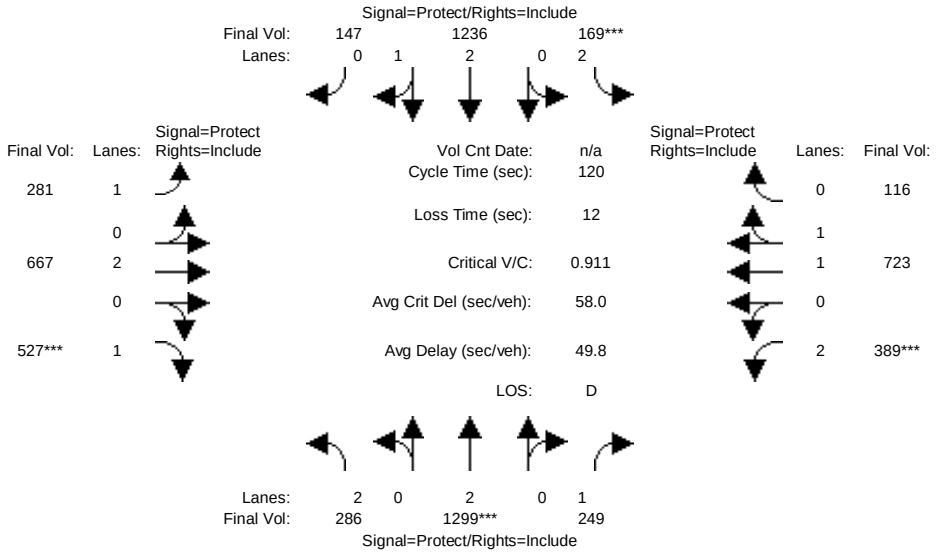
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #28: Wolfe Road/Homestead Road



Street Name:	Wolfe Road						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	274	1260	230	169	1103	147	281	667	487	376	723	116
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	274	1260	230	169	1103	147	281	667	487	376	723	116
Added Vol:	12	39	19	0	133	0	0	0	40	13	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	286	1299	249	169	1236	147	281	667	527	389	723	116
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	286	1299	249	169	1236	147	281	667	527	389	723	116
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	286	1299	249	169	1236	147	281	667	527	389	723	116
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	286	1299	249	169	1236	147	281	667	527	389	723	116
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92	0.83	0.98	0.95
Lanes:	2.00	2.00	1.00	2.00	2.67	0.33	1.00	2.00	1.00	2.00	1.72	0.28
Final Sat.:	3150	3800	1750	3150	5004	595	1750	3800	1750	3150	3188	511
Capacity Analysis Module:												
Vol/Sat:	0.09	0.34	0.14	0.05	0.25	0.25	0.16	0.18	0.30	0.12	0.23	0.23
Crit Moves:		****		****					****	****		
Green Time:	14.0	45.0	45.0	7.1	38.1	38.1	23.2	39.7	39.7	16.3	32.7	32.7
Volume/Cap:	0.78	0.91	0.38	0.91	0.78	0.78	0.83	0.53	0.91	0.91	0.83	0.83
Uniform Del:	51.5	35.6	27.3	56.2	37.1	37.1	46.5	32.6	38.5	51.2	41.0	41.0
IncremntDel:	15.0	10.3	1.7	46.2	3.4	3.4	20.6	1.6	21.0	26.2	8.0	8.0
InitQueuDel:	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:	66.4	45.9	29.0	102.4	40.6	40.6	67.2	34.2	59.4	77.3	49.0	49.0
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:	66.4	45.9	29.0	102.4	40.6	40.6	67.2	34.2	59.4	77.3	49.0	49.0
LOS by Move:	E	D	C	F	D	D	E	C-	E+	E-	D	D
HCM2kAvgQ:	202	661	179	160	429	429	330	253	598	297	430	430

Note: Queue reported is the distance per lane in feet.

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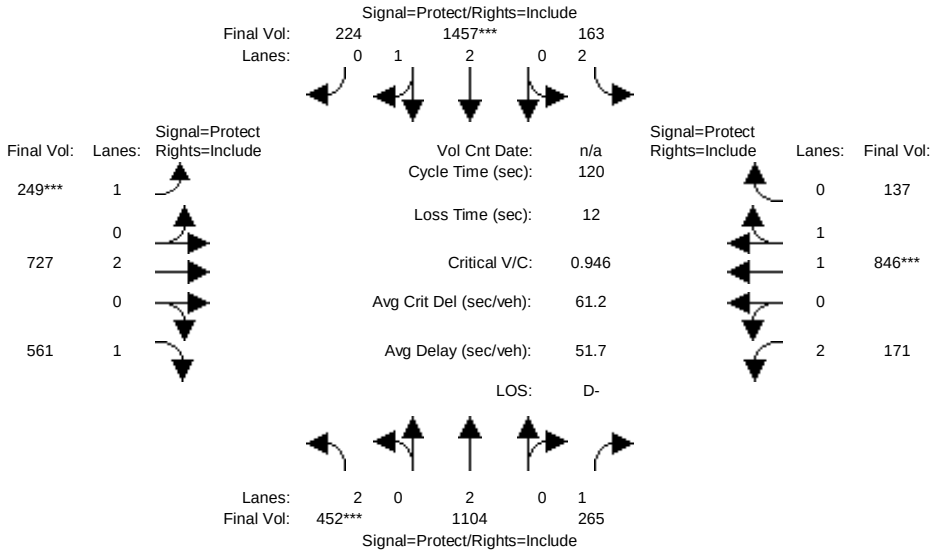
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #28: Wolfe Road/Homestead Road



Street Name:	Wolfe Road						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	408	959	192	163	1383	224	249	727	539	164	846	137
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	408	959	192	163	1383	224	249	727	539	164	846	137
Added Vol:	44	145	73	0	74	0	0	0	22	7	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	452	1104	265	163	1457	224	249	727	561	171	846	137
User Adj:	1.00	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:	452	1104	265	163	1457	224	249	727	561	171	846	137
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	452	1104	265	163	1457	224	249	727	561	171	846	137
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	452	1104	265	163	1457	224	249	727	561	171	846	137
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92	0.83	0.98	0.95
Lanes:	2.00	2.00	1.00	2.00	2.59	0.41	1.00	2.00	1.00	2.00	1.71	0.29
Final Sat.:	3150	3800	1750	3150	4853	746	1750	3800	1750	3150	3184	516
Capacity Analysis Module:												
Vol/Sat:	0.14	0.29	0.15	0.05	0.30	0.30	0.14	0.19	0.32	0.05	0.27	0.27
Crit Moves:	****				****		****				****	
Green Time:	18.2	46.9	46.9	9.4	38.1	38.1	18.0	43.8	43.8	8.0	33.7	33.7
Volume/Cap:	0.95	0.74	0.39	0.66	0.95	0.95	0.95	0.52	0.88	0.82	0.95	0.95
Uniform Del:	50.4	31.4	26.3	53.7	40.0	40.0	50.5	29.9	35.6	55.3	42.3	42.3
IncremntDel:	29.8	3.4	1.7	13.0	12.0	12.0	43.2	1.4	15.9	28.7	17.7	17.7
InitQueuDel:	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:	80.2	34.8	27.9	66.8	51.9	51.9	93.7	31.4	51.5	84.0	59.9	59.9
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:	80.2	34.8	27.9	66.8	51.9	51.9	93.7	31.4	51.5	84.0	59.9	59.9
LOS by Move:	F	C-	C	E	D-	D-	F	C	D-	F	E+	E+
HCM2kAvgQ:	349	461	188	119	630	630	347	265	598	146	571	571

Note: Queue reported is the distance per lane in feet.

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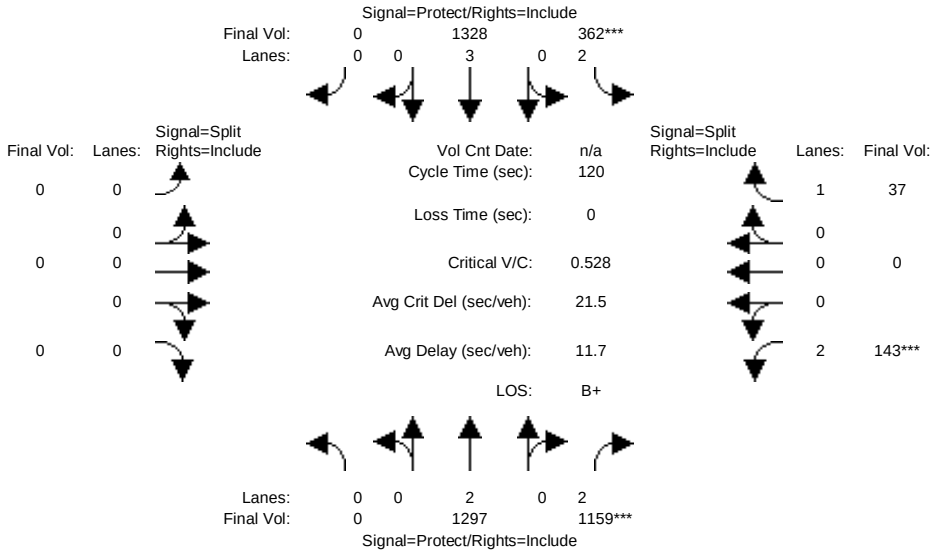
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #29: Wolfe Road/Apple Campus 2 Driveway



Street Name:	Wolfe Road						Apple Campus 2 Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	0	0	10	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1227	1159	362	1142	0	0	0	0	143	0	37
Growth Adj:	1.00	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	1227	1159	362	1142	0	0	0	0	143	0	37
Added Vol:	0	70	0	0	186	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1297	1159	362	1328	0	0	0	0	143	0	37
User Adj:	1.00	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	1297	1159	362	1328	0	0	0	0	143	0	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1297	1159	362	1328	0	0	0	0	143	0	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1297	1159	362	1328	0	0	0	0	143	0	37
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	2.00	2.00	2.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3800	3150	3150	5700	0	0	0	0	3150	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.34	0.37	0.11	0.23	0.00	0.00	0.00	0.00	0.05	0.00	0.02
Crit Moves:			****	****						****		
Green Time:	0.0	83.6	83.6	26.1	110	0.0	0.0	0.0	0.0	10.3	0.0	10.3
Volume/Cap:	0.00	0.49	0.53	0.53	0.25	0.00	0.00	0.00	0.00	0.53	0.00	0.25
Uniform Del:	0.0	8.4	8.7	41.5	0.6	0.0	0.0	0.0	0.0	52.5	0.0	51.2
IncremntDel:	0.0	0.7	0.9	2.9	0.1	0.0	0.0	0.0	0.0	7.2	0.0	3.9
InitQueuDel:	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	9.0	9.7	44.4	0.7	0.0	0.0	0.0	0.0	59.7	0.0	55.1
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	9.0	9.7	44.4	0.7	0.0	0.0	0.0	0.0	59.7	0.0	55.1
LOS by Move:	A	A	A	D	A	A	A	A	A	E+	A	E+
HCM2kAvgQ:	0	273	307	188	50	0	0	0	0	94	0	39

Note: Queue reported is the distance per lane in feet.

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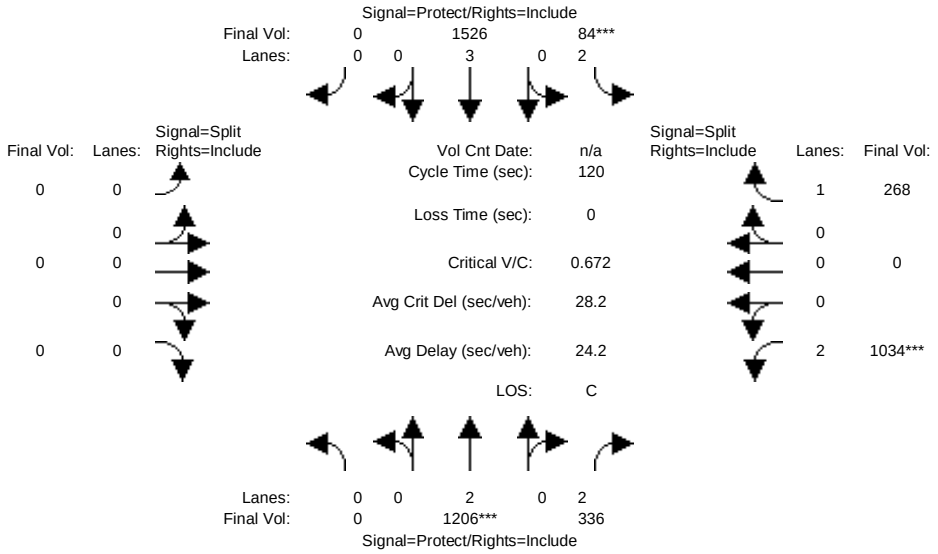
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #29: Wolfe Road/Apple Campus 2 Driveway



Street Name:	Wolfe Road						Apple Campus 2 Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	0	0	10	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	945	336	84	1423	0	0	0	0	1034	0	268
Growth Adj:	1.00	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	945	336	84	1423	0	0	0	0	1034	0	268
Added Vol:	0	261	0	0	103	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1206	336	84	1526	0	0	0	0	1034	0	268
User Adj:	1.00	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	1206	336	84	1526	0	0	0	0	1034	0	268
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1206	336	84	1526	0	0	0	0	1034	0	268
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1206	336	84	1526	0	0	0	0	1034	0	268
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	2.00	2.00	2.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3800	3150	3150	5700	0	0	0	0	3150	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.32	0.11	0.03	0.27	0.00	0.00	0.00	0.00	0.33	0.00	0.15
Crit Moves:		****		****						****		
Green Time:	0.0	56.6	56.6	4.8	61.4	0.0	0.0	0.0	0.0	58.6	0.0	58.6
Volume/Cap:	0.00	0.67	0.23	0.67	0.52	0.00	0.00	0.00	0.00	0.67	0.00	0.31
Uniform Del:	0.0	24.5	18.7	56.9	19.5	0.0	0.0	0.0	0.0	23.4	0.0	18.6
IncremntDel:	0.0	2.0	0.4	25.2	0.7	0.0	0.0	0.0	0.0	2.4	0.0	1.0
InitQueuDel:	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	26.5	19.1	82.1	20.2	0.0	0.0	0.0	0.0	25.8	0.0	19.5
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	26.5	19.1	82.1	20.2	0.0	0.0	0.0	0.0	25.8	0.0	19.5
LOS by Move:	A	C	B-	F	C+	A	A	A	A	C	A	B-
HCM2kAvgQ:	0	437	107	77	310	0	0	0	0	445	0	158

Note: Queue reported is the distance per lane in feet.

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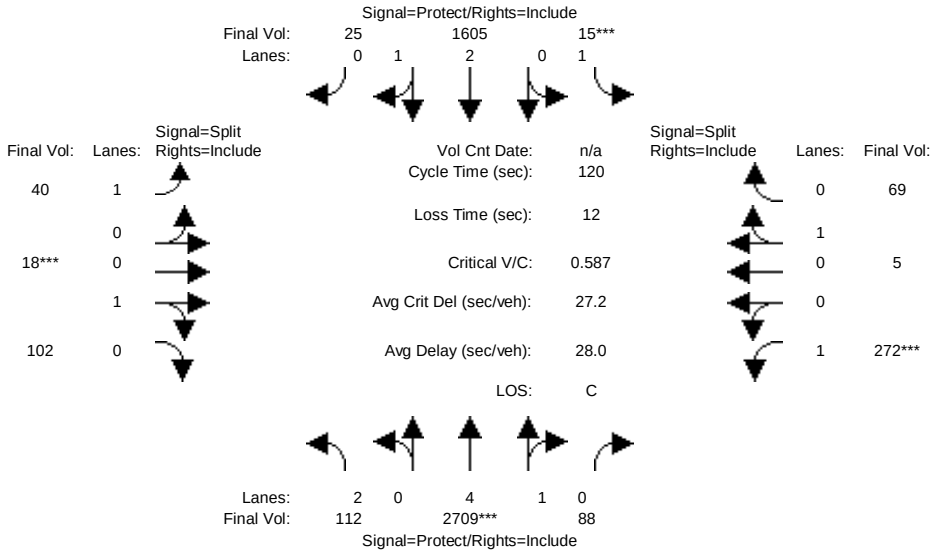
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #30: Wolfe Road/Pruneridge Avenue



Street Name:	Wolfe Road						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	112	2639	88	15	1419	25	40	18	102	272	5	69
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	112	2639	88	15	1419	25	40	18	102	272	5	69
Added Vol:	0	70	0	0	186	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	112	2709	88	15	1605	25	40	18	102	272	5	69
User Adj:	1.00	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:	112	2709	88	15	1605	25	40	18	102	272	5	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	112	2709	88	15	1605	25	40	18	102	272	5	69
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	112	2709	88	15	1605	25	40	18	102	272	5	69
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	2.00	4.84	0.16	1.00	2.95	0.05	1.00	0.15	0.85	1.00	0.07	0.93
Final Sat.:	3150	9104	296	1750	5514	86	1750	270	1530	1750	122	1678
Capacity Analysis Module:												
Vol/Sat:	0.04	0.30	0.30	0.01	0.29	0.29	0.02	0.07	0.07	0.16	0.04	0.04
Crit Moves:		****		****				****		****		
Green Time:	10.8	57.8	57.8	7.0	54.0	54.0	13.0	13.0	13.0	30.2	30.2	30.2
Volume/Cap:	0.39	0.62	0.62	0.15	0.65	0.65	0.21	0.62	0.62	0.62	0.16	0.16
Uniform Del:	51.5	22.9	22.9	53.7	25.6	25.6	48.9	51.2	51.2	39.8	35.0	35.0
IncremntDel:	4.1	0.6	0.6	3.0	1.3	1.3	2.5	13.8	13.8	6.4	0.8	0.8
InitQueuDel:	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:	55.6	23.6	23.6	56.7	26.9	26.9	51.4	65.0	65.0	46.1	35.8	35.8
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:	55.6	23.6	23.6	56.7	26.9	26.9	51.4	65.0	65.0	46.1	35.8	35.8
LOS by Move:	E+	C	C	E+	C	C	D-	E	E	D	D+	D+
HCM2kAvgQ:	69	386	386	17	401	401	40	136	136	256	56	56

Note: Queue reported is the distance per lane in feet.

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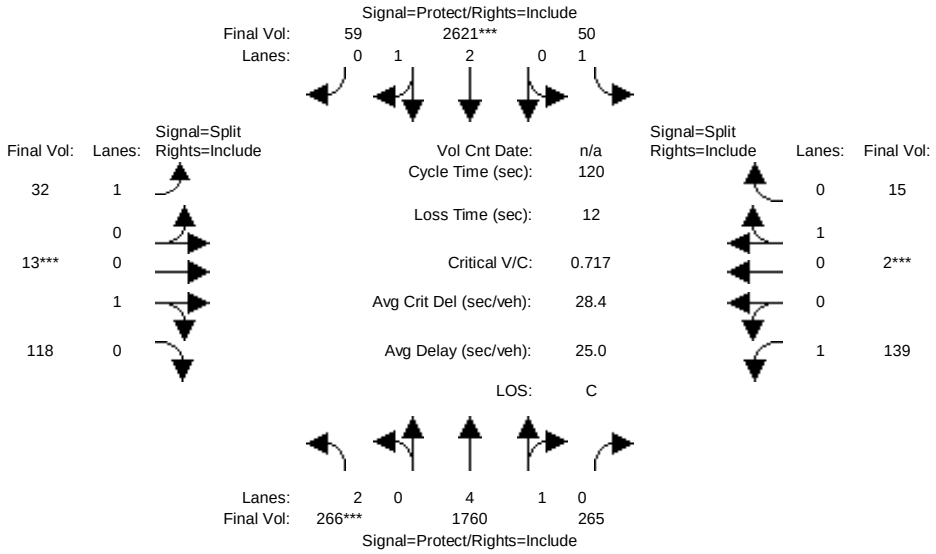
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #30: Wolfe Road/Pruneridge Avenue



Street Name:	Wolfe Road						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	266	1499	265	50	2518	59	32	13	118	139	2	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	266	1499	265	50	2518	59	32	13	118	139	2	15
Added Vol:	0	261	0	0	103	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	266	1760	265	50	2621	59	32	13	118	139	2	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:	266	1760	265	50	2621	59	32	13	118	139	2	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	266	1760	265	50	2621	59	32	13	118	139	2	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:	266	1760	265	50	2621	59	32	13	118	139	2	15
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	2.00	4.32	0.68	1.00	2.93	0.07	1.00	0.10	0.90	1.00	0.12	0.88
Final Sat.:	3150	8168	1230	1750	5477	123	1750	179	1621	1750	212	1588
Capacity Analysis Module:												
Vol/Sat:	0.08	0.22	0.22	0.03	0.48	0.48	0.02	0.07	0.07	0.08	0.01	0.01
Crit Moves:	****				****			****			****	
Green Time:	12.6	66.0	66.0	17.9	71.3	71.3	10.8	10.8	10.8	13.3	13.3	13.3
Volume/Cap:	0.81	0.39	0.39	0.19	0.81	0.81	0.20	0.81	0.81	0.72	0.09	0.09
Uniform Del:	52.5	15.5	15.5	44.7	19.0	19.0	50.6	53.5	53.5	51.5	47.9	47.9
IncremntDel:	18.6	0.2	0.2	1.6	2.2	2.2	2.9	33.2	33.2	20.3	0.8	0.8
InitQueuDel:	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:	71.1	15.7	15.7	46.4	21.2	21.2	53.4	86.8	86.8	71.8	48.7	48.7
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:	71.1	15.7	15.7	46.4	21.2	21.2	53.4	86.8	86.8	71.8	48.7	48.7
LOS by Move:	E	B	B	D	C+	C+	D-	F	F	E	D	D
HCM2kAvgQ:	197	212	212	46	681	681	33	177	177	171	16	16

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
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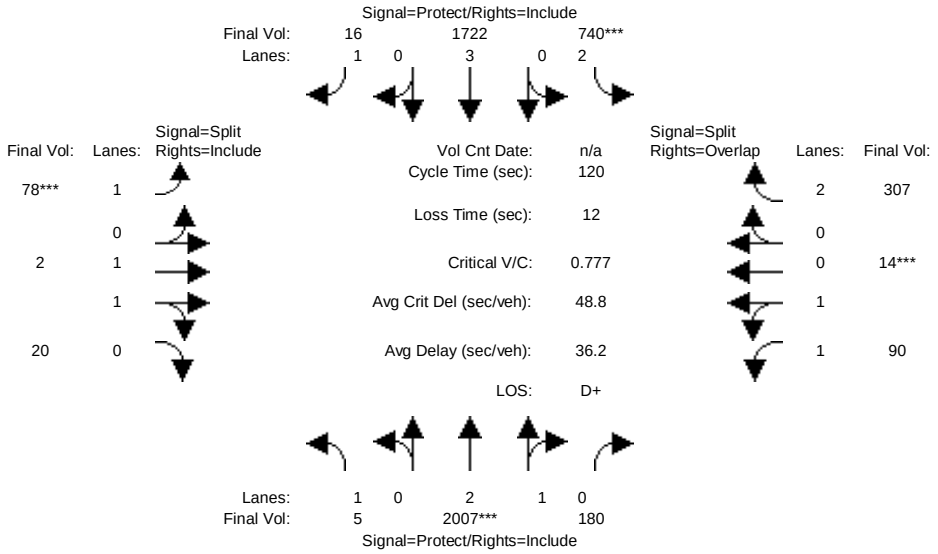
Intersection #33: Wolfe Road/Vallco Parkway



Street Name:	Wolfe Road						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	36	10	10	14	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	5	2007	180	740	1722	16	78	2	20	90	14	307
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	2007	180	740	1722	16	78	2	20	90	14	307
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:	5	2007	180	740	1722	16	78	2	20	90	14	307
User Adj:	1.00	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:	5	2007	180	740	1722	16	78	2	20	90	14	307
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	2007	180	740	1722	16	78	2	20	90	14	307
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	5	2007	180	740	1722	16	78	2	20	90	14	307
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.83
Lanes:	1.00	2.74	0.26	2.00	3.00	1.00	1.00	1.00	1.00	1.73	0.27	2.00
Final Sat.:	1750	5138	461	3150	5700	1750	1750	1900	1750	3072	478	3150
Capacity Analysis Module:												
Vol/Sat:	0.00	0.39	0.39	0.23	0.30	0.01	0.04	0.00	0.01	0.03	0.03	0.10
Crit Moves:		****		****			****				****	
Green Time:	13.6	48.0	48.0	36.0	70.4	70.4	14.0	14.0	14.0	10.0	10.0	46.0
Volume/Cap:	0.03	0.98	0.98	0.78	0.51	0.02	0.38	0.01	0.10	0.35	0.35	0.25
Uniform Del:	47.3	35.4	35.4	38.4	14.7	10.3	49.0	46.9	47.4	51.9	51.9	25.3
IncremntDel:	0.2	14.2	14.2	6.4	0.6	0.0	5.3	0.0	0.9	3.3	3.3	0.5
InitQueuDel:	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:	47.5	49.7	49.7	44.9	15.3	10.4	54.3	46.9	48.2	55.2	55.2	25.8
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:	47.5	49.7	49.7	44.9	15.3	10.4	54.3	46.9	48.2	55.2	55.2	25.8
LOS by Move:	D	D	D	D	B	B+	D-	D	D	E+	E+	C
HCM2kAvgQ:	4	663	663	407	319	7	80	2	19	49	49	115

Note: Queue reported is the distance per lane in feet.

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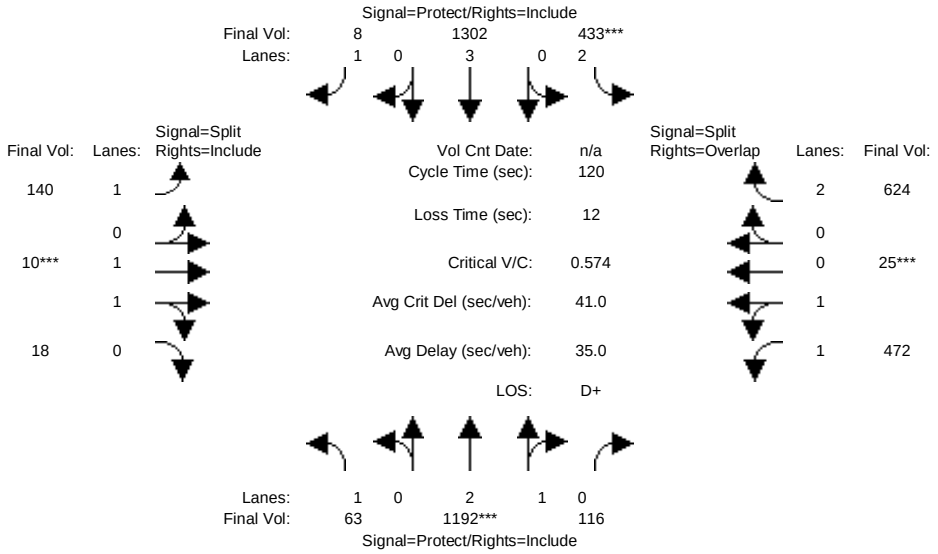
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #33: Wolfe Road/Vallco Parkway



Street Name:	Wolfe Road						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	63	1192	116	433	1302	8	140	10	18	472	25	624
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	63	1192	116	433	1302	8	140	10	18	472	25	624
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:	63	1192	116	433	1302	8	140	10	18	472	25	624
User Adj:	1.00	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	1192	116	433	1302	8	140	10	18	472	25	624
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	1192	116	433	1302	8	140	10	18	472	25	624
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1192	116	433	1302	8	140	10	18	472	25	624
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.83
Lanes:	1.00	2.72	0.28	2.00	3.00	1.00	1.00	1.00	1.00	1.90	0.10	2.00
Final Sat.:	1750	5103	497	3150	5700	1750	1750	1900	1750	3371	179	3150
Capacity Analysis Module:												
Vol/Sat:	0.04	0.23	0.23	0.14	0.23	0.00	0.08	0.01	0.01	0.14	0.14	0.20
Crit Moves:		****		****				****			****	
Green Time:	13.5	41.7	41.7	24.5	52.8	52.8	16.7	16.7	16.7	25.0	25.0	49.5
Volume/Cap:	0.32	0.67	0.67	0.67	0.52	0.01	0.57	0.04	0.07	0.67	0.67	0.48
Uniform Del:	49.0	33.3	33.3	44.0	24.4	18.9	48.3	44.7	44.9	43.7	43.7	25.8
IncremntDel:	4.3	1.9	1.9	5.5	0.8	0.0	9.5	0.1	0.4	4.8	4.8	1.3
InitQueuDel:	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:	53.3	35.2	35.2	49.5	25.2	18.9	57.8	44.8	45.3	48.6	48.6	27.1
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:	53.3	35.2	35.2	49.5	25.2	18.9	57.8	44.8	45.3	48.6	48.6	27.1
LOS by Move:	D-	D+	D+	D	C	B-	E+	D	D	D	D	C
HCM2kAvgQ:	56	350	350	232	293	4	149	8	16	233	233	252

Note: Queue reported is the distance per lane in feet.

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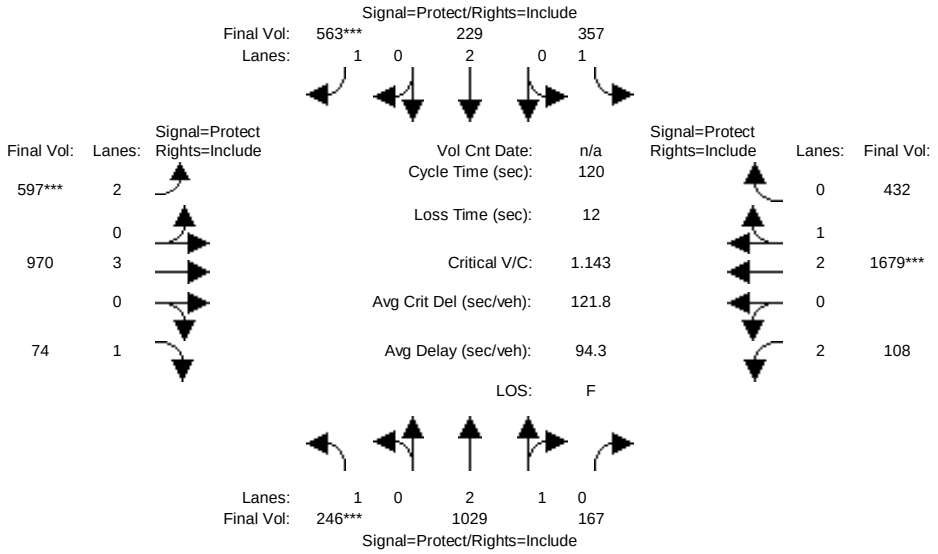
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #34: Wolfe Road/Stevens Creek Boulevard



Street Name:	Wolfe Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	246	1029	167	357	229	563	597	970	74	108	1679	432
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	246	1029	167	357	229	563	597	970	74	108	1679	432
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:	246	1029	167	357	229	563	597	970	74	108	1679	432
User Adj:	1.00	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:	246	1029	167	357	229	563	597	970	74	108	1679	432
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	246	1029	167	357	229	563	597	970	74	108	1679	432
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	246	1029	167	357	229	563	597	970	74	108	1679	432
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	1.00	0.92	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	1.00	2.57	0.43	1.00	2.00	1.00	2.00	3.00	1.00	2.00	2.36	0.64
Final Sat.:	1750	4817	782	1750	3800	1750	3150	5700	1750	3150	4453	1146
Capacity Analysis Module:												
Vol/Sat:	0.14	0.21	0.21	0.20	0.06	0.32	0.19	0.17	0.04	0.03	0.38	0.38
Crit Moves:	****					****	****				****	
Green Time:	14.8	24.8	24.8	23.7	33.8	33.8	19.9	44.3	44.3	15.2	39.6	39.6
Volume/Cap:	1.14	1.03	1.03	1.03	0.21	1.14	1.14	0.46	0.11	0.27	1.14	1.14
Uniform Del:	52.6	47.6	47.6	48.1	33.0	43.1	50.1	28.8	24.9	47.4	40.2	40.2
IncremntDel:	105.3	35.2	35.2	57.1	0.5	86.3	85.3	0.7	0.4	1.7	71.5	71.5
InitQueuDel:	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:	157.9	82.8	82.8	105.3	33.4	129.4	135.3	29.5	25.3	49.1	112	111.7
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:	157.9	82.8	82.8	105.3	33.4	129.4	135.3	29.5	25.3	49.1	112	111.7
LOS by Move:	F	F	F	F	C-	F	F	C	C	D	F	F
HCM2kAvgQ:	428	538	538	478	78	854	516	226	47	58	1012	1012

Note: Queue reported is the distance per lane in feet.

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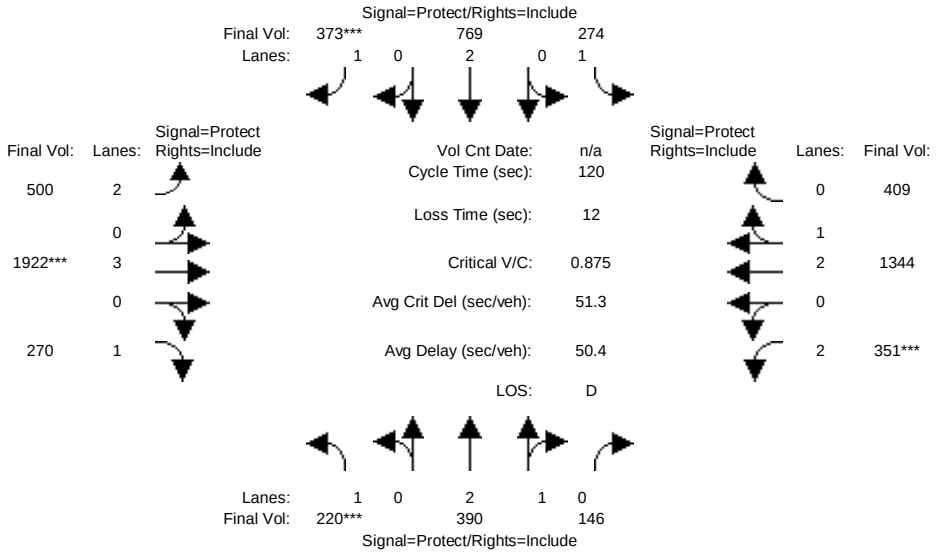
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #34: Wolfe Road/Stevens Creek Boulevard



Street Name:	Wolfe Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	18	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	220	390	146	274	769	373	500	1922	270	351	1344	409
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	220	390	146	274	769	373	500	1922	270	351	1344	409
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:	220	390	146	274	769	373	500	1922	270	351	1344	409
User Adj:	1.00	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:	220	390	146	274	769	373	500	1922	270	351	1344	409
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	220	390	146	274	769	373	500	1922	270	351	1344	409
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	220	390	146	274	769	373	500	1922	270	351	1344	409
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.95	0.92	1.00	0.92	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	1.00	2.15	0.85	1.00	2.00	1.00	2.00	3.00	1.00	2.00	2.27	0.73
Final Sat.:	1750	4073	1525	1750	3800	1750	3150	5700	1750	3150	4292	1306
Capacity Analysis Module:												
Vol/Sat:	0.13	0.10	0.10	0.16	0.20	0.21	0.16	0.34	0.15	0.11	0.31	0.31
Crit Moves:	****					****		****		****		
Green Time:	16.7	17.1	17.1	28.0	28.4	28.4	21.2	44.9	44.9	18.0	41.7	41.7
Volume/Cap:	0.90	0.67	0.67	0.67	0.86	0.90	0.90	0.90	0.41	0.74	0.90	0.90
Uniform Del:	50.8	48.8	48.8	41.8	43.9	44.5	48.4	35.5	27.8	48.8	37.2	37.2
IncremntDel:	36.8	4.5	4.5	8.5	10.3	25.3	20.2	6.7	1.9	10.1	7.2	7.2
InitQueuDel:	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:	87.7	53.2	53.2	50.3	54.1	69.8	68.6	42.2	29.7	58.9	44.4	44.4
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:	87.7	53.2	53.2	50.3	54.1	69.8	68.6	42.2	29.7	58.9	44.4	44.4
LOS by Move:	F	D-	D-	D	D-	E	E	D	C	E+	D	D
HCM2kAvgQ:	298	188	188	257	380	420	277	559	186	226	607	607

Note: Queue reported is the distance per lane in feet.

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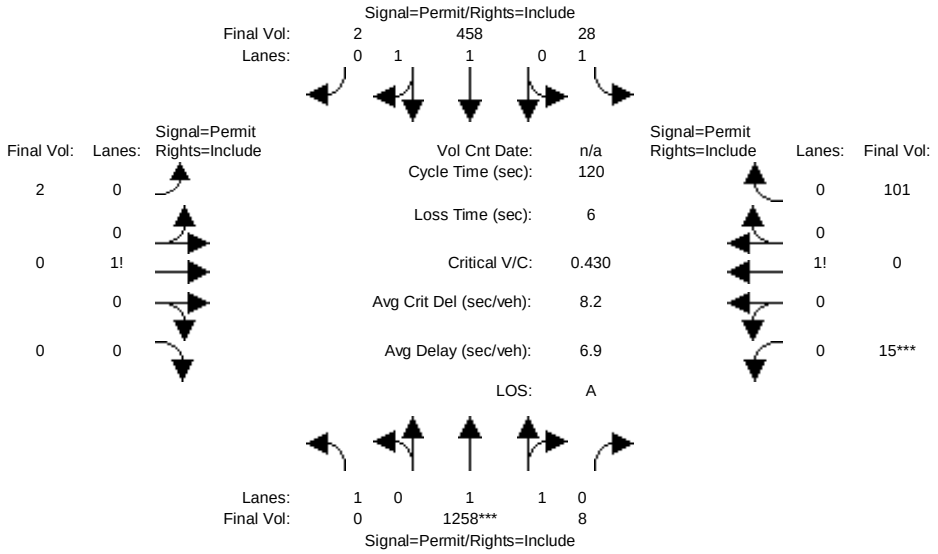
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #35: Miller Avenue/Calle De Barcelona



Street Name:	Miller Avenue						Calle De Barcelona					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1052	8	28	429	2	2	0	0	15	0	101
Growth Adj:	1.00	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	1052	8	28	429	2	2	0	0	15	0	101
Added Vol:	0	206	0	0	29	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1258	8	28	458	2	2	0	0	15	0	101
User Adj:	1.00	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	1258	8	28	458	2	2	0	0	15	0	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1258	8	28	458	2	2	0	0	15	0	101
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1258	8	28	458	2	2	0	0	15	0	101
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	1.99	0.01	1.00	1.99	0.01	1.00	0.00	0.00	0.13	0.00	0.87
Final Sat.:	1750	3677	23	1750	3684	16	1750	0	0	226	0	1524
Capacity Analysis Module:												
Vol/Sat:	0.00	0.34	0.34	0.02	0.12	0.12	0.00	0.00	0.00	0.07	0.00	0.07
Crit Moves:		****								****		
Green Time:	0.0	95.5	95.5	95.5	95.5	95.5	18.5	0.0	0.0	18.5	0.0	18.5
Volume/Cap:	0.00	0.43	0.43	0.02	0.16	0.16	0.01	0.00	0.00	0.43	0.00	0.43
Uniform Del:	0.0	3.8	3.8	2.5	2.9	2.9	43.0	0.0	0.0	46.0	0.0	46.0
IncremntDel:	0.0	0.5	0.5	0.0	0.1	0.1	0.0	0.0	0.0	4.9	0.0	4.9
InitQueuDel:	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	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	4.3	4.3	2.6	3.0	3.0	43.0	0.0	0.0	50.9	0.0	50.9
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	4.3	4.3	2.6	3.0	3.0	43.0	0.0	0.0	50.9	0.0	50.9
LOS by Move:	A	A	A	A	A	A	D	A	A	D	A	D
HCM2kAvgQ:	0	187	187	6	51	51	2	0	0	113	0	113

Note: Queue reported is the distance per lane in feet.

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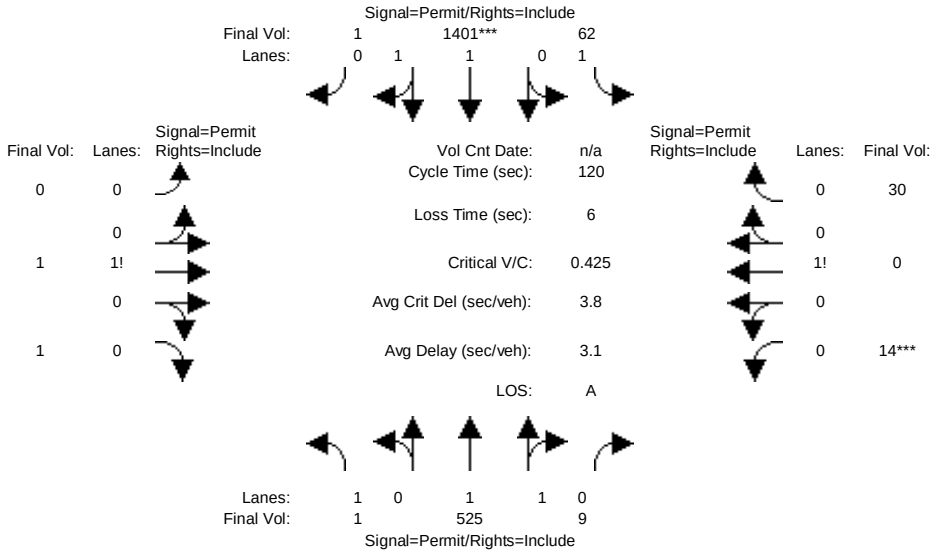
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #35: Miller Avenue/Calle De Barcelona



Street Name:	Miller Avenue						Calle De Barcelona					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	1	411	9	62	1292	1	0	1	1	14	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	411	9	62	1292	1	0	1	1	14	0	30
Added Vol:	0	114	0	0	109	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	525	9	62	1401	1	0	1	1	14	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	525	9	62	1401	1	0	1	1	14	0	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	525	9	62	1401	1	0	1	1	14	0	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:	1	525	9	62	1401	1	0	1	1	14	0	30
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	1.00	1.97	0.03	1.00	1.99	0.01	0.00	0.50	0.50	0.32	0.00	0.68
Final Sat.:	1750	3638	62	1750	3697	3	0	900	900	557	0	1193
Capacity Analysis Module:												
Vol/Sat:	0.00	0.14	0.14	0.04	0.38	0.38	0.00	0.00	0.00	0.03	0.00	0.03
Crit Moves:					****					****		
Green Time:	104.0	104	104.0	104.0	104	104.0	0.0	10.0	10.0	10.0	0.0	10.0
Volume/Cap:	0.00	0.17	0.17	0.04	0.44	0.44	0.00	0.01	0.01	0.30	0.00	0.30
Uniform Del:	1.1	1.2	1.2	1.1	1.7	1.7	0.0	50.5	50.5	51.7	0.0	51.7
IncremntDel:	0.0	0.1	0.1	0.1	0.4	0.4	0.0	0.2	0.2	5.2	0.0	5.2
InitQueuDel:	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	0.00	1.00	1.00	1.00	0.00	1.00
Delay/Veh:	1.1	1.4	1.4	1.2	2.2	2.2	0.0	50.6	50.6	57.0	0.0	57.0
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:	1.1	1.4	1.4	1.2	2.2	2.2	0.0	50.6	50.6	57.0	0.0	57.0
LOS by Move:	A	A	A	A	A	A	A	D	D	E+	A	E+
HCM2kAvgQ:	0	41	41	9	148	148	0	2	2	48	0	48

Note: Queue reported is the distance per lane in feet.

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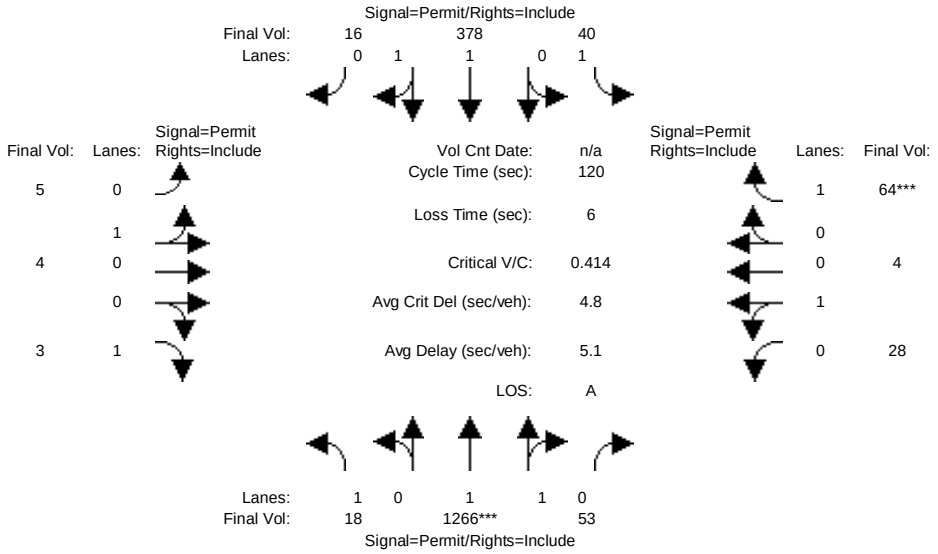
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #36: Miller Avenue/Phil Lane



Street Name:	Miller Avenue						Phil Lane					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	18	1060	53	40	349	16	5	4	3	28	4	64
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	1060	53	40	349	16	5	4	3	28	4	64
Added Vol:	0	206	0	0	29	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	1266	53	40	378	16	5	4	3	28	4	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:	18	1266	53	40	378	16	5	4	3	28	4	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	1266	53	40	378	16	5	4	3	28	4	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:	18	1266	53	40	378	16	5	4	3	28	4	64
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.92	0.08	1.00	1.92	0.08	0.56	0.44	1.00	0.87	0.13	1.00
Final Sat.:	1750	3551	149	1750	3550	150	1000	800	1750	1575	225	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.36	0.36	0.02	0.11	0.11	0.01	0.01	0.00	0.02	0.02	0.04
Crit Moves:		****										****
Green Time:	103.4	103	103.4	103.4	103	103.4	10.6	10.6	10.6	10.6	10.6	10.6
Volume/Cap:	0.01	0.41	0.41	0.03	0.12	0.12	0.06	0.06	0.02	0.20	0.20	0.41
Uniform Del:	1.2	1.8	1.8	1.2	1.3	1.3	50.1	50.1	49.9	50.8	50.8	51.8
IncremntDel:	0.0	0.4	0.4	0.0	0.1	0.1	0.7	0.7	0.2	2.8	2.8	8.0
InitQueuDel:	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:	1.2	2.2	2.2	1.2	1.4	1.4	50.8	50.8	50.2	53.6	53.6	59.7
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:	1.2	2.2	2.2	1.2	1.4	1.4	50.8	50.8	50.2	53.6	53.6	59.7
LOS by Move:	A	A	A	A	A	A	D	D	D	D-	D-	E+
HCM2kAvgQ:	3	139	139	6	30	30	9	9	3	32	32	72

Note: Queue reported is the distance per lane in feet.

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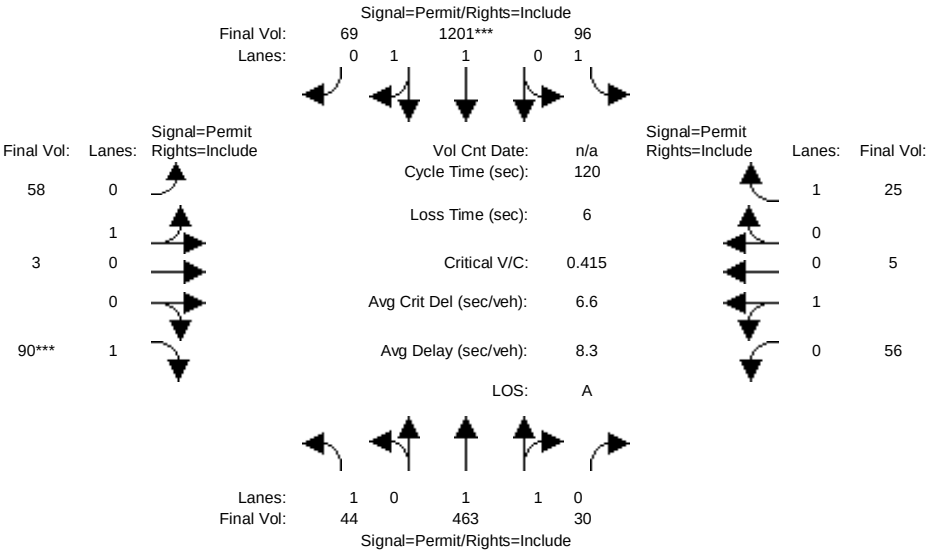
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #36: Miller Avenue/Phil Lane



Street Name:	Miller Avenue						Phil Lane					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	44	349	30	96	1092	69	58	3	90	56	5	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	44	349	30	96	1092	69	58	3	90	56	5	25
Added Vol:	0	114	0	0	109	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	463	30	96	1201	69	58	3	90	56	5	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:	44	463	30	96	1201	69	58	3	90	56	5	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	463	30	96	1201	69	58	3	90	56	5	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:	44	463	30	96	1201	69	58	3	90	56	5	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.87	0.13	1.00	1.89	0.11	0.95	0.05	1.00	0.92	0.08	1.00
Final Sat.:	1750	3475	225	1750	3499	201	1711	89	1750	1652	148	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.13	0.13	0.05	0.34	0.34	0.03	0.03	0.05	0.03	0.03	0.01
Crit Moves:					****				****			
Green Time:	99.1	99.1	99.1	99.1	99.1	99.1	14.9	14.9	14.9	14.9	14.9	14.9
Volume/Cap:	0.03	0.16	0.16	0.07	0.42	0.42	0.27	0.27	0.42	0.27	0.27	0.12
Uniform Del:	1.9	2.1	2.1	1.9	2.8	2.8	47.7	47.7	48.6	47.7	47.7	46.7
IncremntDel:	0.0	0.1	0.1	0.1	0.4	0.4	3.0	3.0	5.8	3.0	3.0	1.1
InitQueuDel:	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:	1.9	2.2	2.2	2.0	3.2	3.2	50.7	50.7	54.3	50.7	50.7	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:	1.9	2.2	2.2	2.0	3.2	3.2	50.7	50.7	54.3	50.7	50.7	47.8
LOS by Move:	A	A	A	A	A	A	D	D	D-	D	D	D
HCM2kAvgQ:	8	47	47	18	161	161	58	58	92	58	58	23

Note: Queue reported is the distance per lane in feet.

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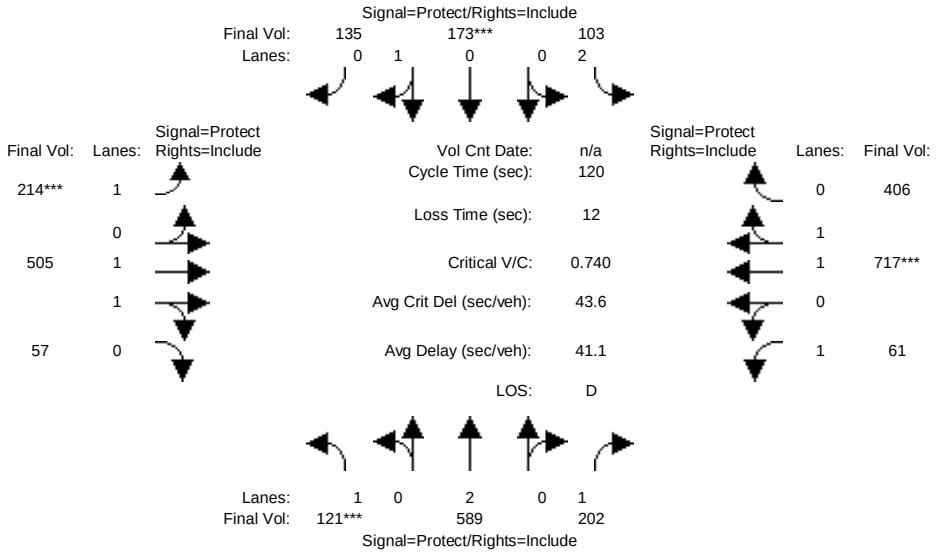
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #37: Miller Avenue/Bollinger Road



Street Name:	Miller Avenue						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	121	562	202	91	165	125	181	505	57	61	717	260
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	121	562	202	91	165	125	181	505	57	61	717	260
Added Vol:	0	27	0	12	8	10	33	0	0	0	0	146
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	121	589	202	103	173	135	214	505	57	61	717	406
User Adj:	1.00	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:	121	589	202	103	173	135	214	505	57	61	717	406
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	121	589	202	103	173	135	214	505	57	61	717	406
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	121	589	202	103	173	135	214	505	57	61	717	406
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.95	0.95	0.92	0.98	0.95	0.92	0.99	0.95
Lanes:	1.00	2.00	1.00	2.00	0.56	0.44	1.00	1.79	0.21	1.00	1.26	0.74
Final Sat.:	1750	3800	1750	3150	1011	789	1750	3324	375	1750	2361	1337
Capacity Analysis Module:												
Vol/Sat:	0.07	0.16	0.12	0.03	0.17	0.17	0.12	0.15	0.15	0.03	0.30	0.30
Crit Moves:	****				****		****				****	
Green Time:	11.2	28.3	28.3	10.7	27.7	27.7	19.8	49.9	49.9	19.2	49.2	49.2
Volume/Cap:	0.74	0.66	0.49	0.37	0.74	0.74	0.74	0.37	0.37	0.22	0.74	0.74
Uniform Del:	53.0	41.5	39.6	51.5	42.8	42.8	47.6	24.1	24.1	43.9	30.0	30.0
IncremntDel:	25.7	3.8	4.1	3.7	11.2	11.2	15.6	0.7	0.7	1.8	3.3	3.3
InitQueuDel:	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:	78.7	45.2	43.7	55.2	54.0	54.0	63.3	24.8	24.8	45.7	33.3	33.3
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:	78.7	45.2	43.7	55.2	54.0	54.0	63.3	24.8	24.8	45.7	33.3	33.3
LOS by Move:	E-	D	D	E+	D-	D-	E	C	C	D	C-	C-
HCM2kAvgQ:	159	266	181	63	312	312	242	180	180	55	472	472

Note: Queue reported is the distance per lane in feet.

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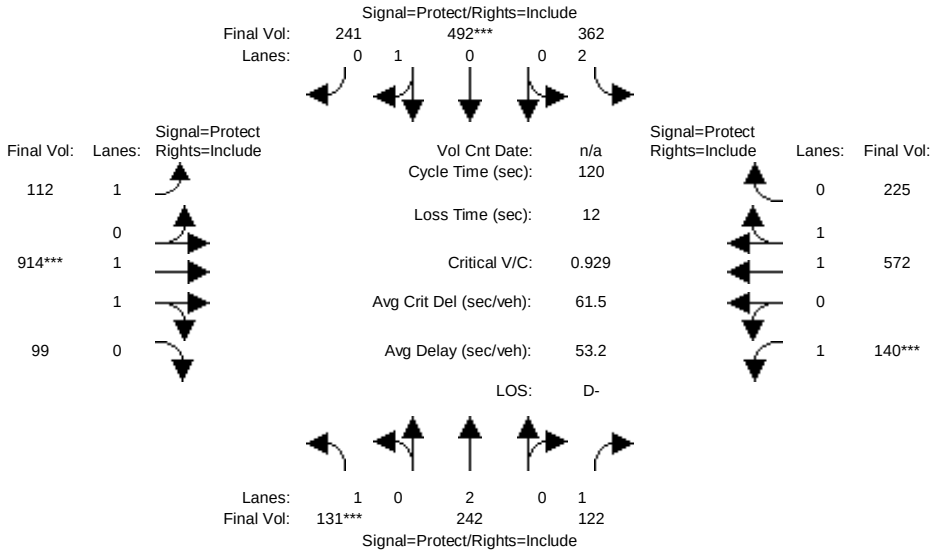
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #37: Miller Avenue/Bollinger Road



Street Name:	Miller Avenue						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	131	227	122	318	463	205	94	914	99	140	572	144
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	131	227	122	318	463	205	94	914	99	140	572	144
Added Vol:	0	15	0	44	29	36	18	0	0	0	0	81
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	131	242	122	362	492	241	112	914	99	140	572	225
User Adj:	1.00	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	242	122	362	492	241	112	914	99	140	572	225
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	131	242	122	362	492	241	112	914	99	140	572	225
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	242	122	362	492	241	112	914	99	140	572	225
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	2.00	1.00	2.00	0.67	0.33	1.00	1.80	0.20	1.00	1.42	0.58
Final Sat.:	1750	3800	1750	3150	1208	592	1750	3338	362	1750	2655	1044
Capacity Analysis Module:												
Vol/Sat:	0.07	0.06	0.07	0.11	0.41	0.41	0.06	0.27	0.27	0.08	0.22	0.22
Crit Moves:	****				****			****			****	
Green Time:	9.7	26.2	26.2	36.1	52.6	52.6	10.5	35.4	35.4	10.3	35.2	35.2
Volume/Cap:	0.93	0.29	0.32	0.38	0.93	0.93	0.73	0.93	0.93	0.93	0.73	0.73
Uniform Del:	54.8	39.2	39.4	33.1	31.9	31.9	53.4	41.1	41.1	54.5	38.2	38.2
IncremntDel:	58.7	0.9	2.2	1.2	18.8	18.8	26.6	14.7	14.7	56.4	4.4	4.4
InitQueuDel:	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:	113.6	40.1	41.6	34.3	50.7	50.7	80.0	55.8	55.8	110.9	42.6	42.6
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:	113.6	40.1	41.6	34.3	50.7	50.7	80.0	55.8	55.8	110.9	42.6	42.6
LOS by Move:	F	D	D	C-	D	D	E-	E+	E+	F	D	D
HCM2kAvgQ:	208	94	104	159	781	781	149	570	570	218	368	368

Note: Queue reported is the distance per lane in feet.

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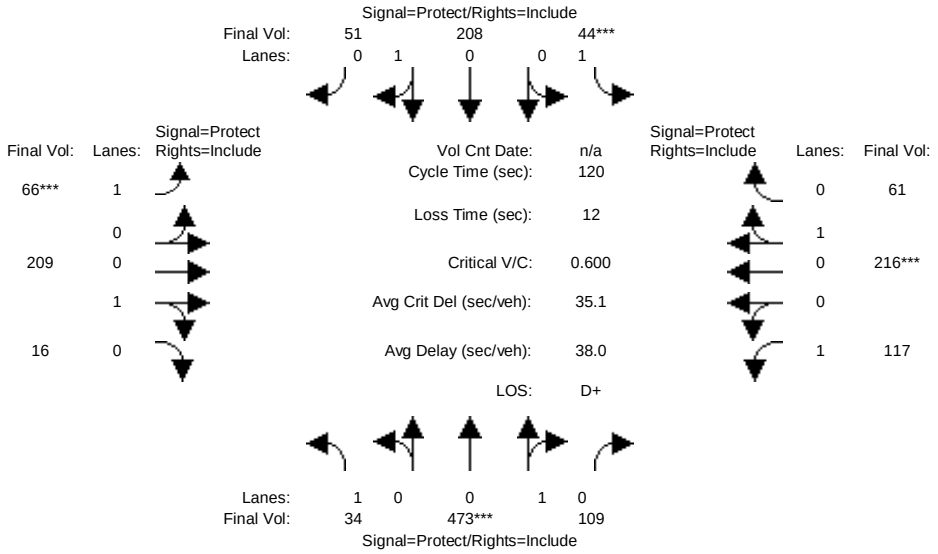
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #38: Miller Avenue/Rainbow Drive



Street Name:	Miller Avenue						Rainbow Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	34	446	109	44	200	51	66	209	16	117	216	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:	34	446	109	44	200	51	66	209	16	117	216	61
Added Vol:	0	27	0	0	8	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	473	109	44	208	51	66	209	16	117	216	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:	34	473	109	44	208	51	66	209	16	117	216	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	473	109	44	208	51	66	209	16	117	216	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:	34	473	109	44	208	51	66	209	16	117	216	61
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	0.81	0.19	1.00	0.80	0.20	1.00	0.93	0.07	1.00	0.78	0.22
Final Sat.:	1750	1463	337	1750	1446	354	1750	1672	128	1750	1404	396
Capacity Analysis Module:												
Vol/Sat:	0.02	0.32	0.32	0.03	0.14	0.14	0.04	0.13	0.13	0.07	0.15	0.15
Crit Moves:		****		****			****				****	
Green Time:	20.3	63.4	63.4	7.0	50.1	50.1	7.4	24.5	24.5	13.1	30.2	30.2
Volume/Cap:	0.11	0.61	0.61	0.43	0.34	0.34	0.61	0.61	0.61	0.61	0.61	0.61
Uniform Del:	42.2	19.7	19.7	54.6	23.8	23.8	54.9	43.4	43.4	51.0	39.7	39.7
IncremntDel:	0.8	2.9	2.9	12.7	1.3	1.3	23.2	7.4	7.4	13.8	6.1	6.1
InitQueuDel:	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:	43.0	22.6	22.6	67.3	25.0	25.0	78.1	50.9	50.9	64.8	45.8	45.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.0	22.6	22.6	67.3	25.0	25.0	78.1	50.9	50.9	64.8	45.8	45.8
LOS by Move:	D	C+	C+	E	C	C	E-	D	D	E	D	D
HCM2kAvgQ:	29	395	395	56	168	168	90	217	217	136	253	253

Note: Queue reported is the distance per lane in feet.

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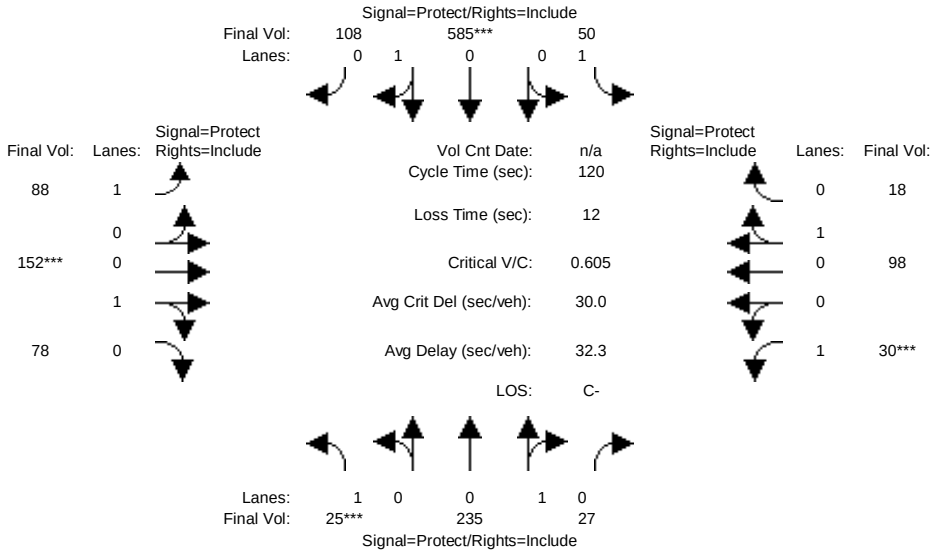
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #38: Miller Avenue/Rainbow Drive



Street Name:	Miller Avenue						Rainbow Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	25	220	27	50	556	108	88	152	78	30	98	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	220	27	50	556	108	88	152	78	30	98	18
Added Vol:	0	15	0	0	29	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	25	235	27	50	585	108	88	152	78	30	98	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:	25	235	27	50	585	108	88	152	78	30	98	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	235	27	50	585	108	88	152	78	30	98	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:	25	235	27	50	585	108	88	152	78	30	98	18
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	0.90	0.10	1.00	0.84	0.16	1.00	0.66	0.34	1.00	0.84	0.16
Final Sat.:	1750	1615	185	1750	1519	281	1750	1190	610	1750	1521	279
Capacity Analysis Module:												
Vol/Sat:	0.01	0.15	0.15	0.03	0.39	0.39	0.05	0.13	0.13	0.02	0.06	0.06
Crit Moves:	****				****			****			****	
Green Time:	7.0	55.4	55.4	22.2	70.6	70.6	12.5	23.4	23.4	7.0	17.9	17.9
Volume/Cap:	0.24	0.32	0.32	0.15	0.65	0.65	0.48	0.65	0.65	0.29	0.43	0.43
Uniform Del:	54.0	20.4	20.4	41.0	16.5	16.5	50.7	44.6	44.6	54.1	46.4	46.4
IncremntDel:	5.6	1.0	1.0	1.0	3.2	3.2	8.8	9.2	9.2	7.2	5.0	5.0
InitQueuDel:	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:	59.6	21.4	21.4	42.0	19.7	19.7	59.5	53.7	53.7	61.3	51.4	51.4
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:	59.6	21.4	21.4	42.0	19.7	19.7	59.5	53.7	53.7	61.3	51.4	51.4
LOS by Move:	E+	C+	C+	D	B-	B-	E+	D-	D-	E	D-	D-
HCM2kAvgQ:	29	157	157	43	454	454	97	229	229	36	111	111

Note: Queue reported is the distance per lane in feet.

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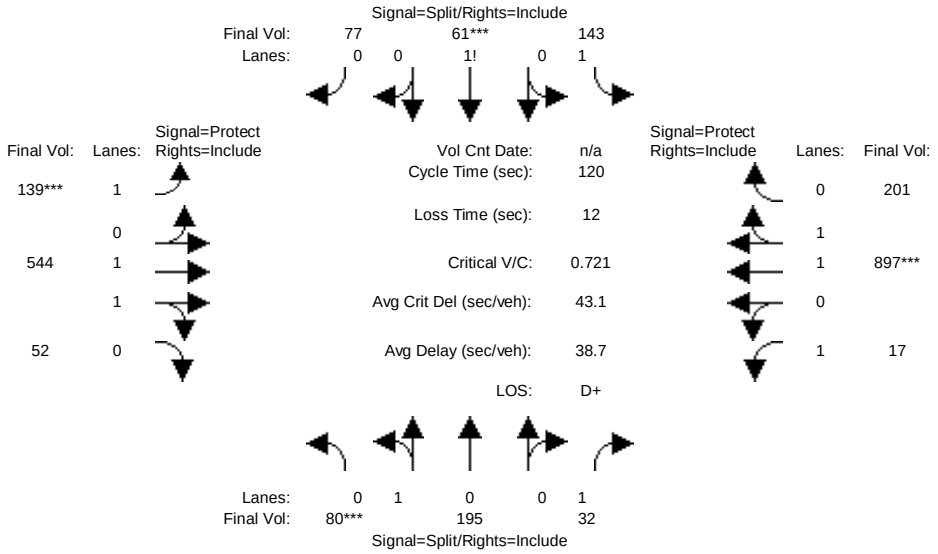
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #39: Miller Avenue/Prospect Road



Street Name:	Miller Avenue						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	80	187	32	140	59	74	130	544	52	17	897	192
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	80	187	32	140	59	74	130	544	52	17	897	192
Added Vol:	0	8	0	3	2	3	9	0	0	0	0	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	80	195	32	143	61	77	139	544	52	17	897	201
User Adj:	1.00	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:	80	195	32	143	61	77	139	544	52	17	897	201
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	195	32	143	61	77	139	544	52	17	897	201
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	80	195	32	143	61	77	139	544	52	17	897	201
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	0.29	0.71	1.00	1.34	0.29	0.37	1.00	1.82	0.18	1.00	1.62	0.38
Final Sat.:	524	1276	1750	2347	510	643	1750	3377	323	1750	3022	677
Capacity Analysis Module:												
Vol/Sat:	0.15	0.15	0.02	0.06	0.12	0.12	0.08	0.16	0.16	0.01	0.30	0.30
Crit Moves:	****				****		****				****	
Green Time:	25.4	25.4	25.4	19.9	19.9	19.9	13.2	46.0	46.0	16.7	49.4	49.4
Volume/Cap:	0.72	0.72	0.09	0.37	0.72	0.72	0.72	0.42	0.42	0.07	0.72	0.72
Uniform Del:	44.0	44.0	38.0	44.4	47.4	47.4	51.6	27.2	27.2	44.9	29.5	29.5
IncremntDel:	11.2	11.2	0.5	1.4	11.0	11.0	20.7	0.9	0.9	0.6	3.0	3.0
InitQueuDel:	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:	55.2	55.2	38.4	45.8	58.4	58.4	72.3	28.1	28.1	45.5	32.5	32.5
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:	55.2	55.2	38.4	45.8	58.4	58.4	72.3	28.1	28.1	45.5	32.5	32.5
LOS by Move:	E+	E+	D+	D	E+	E+	E	C	C	D	C-	C-
HCM2kAvgQ:	281	281	26	100	234	234	172	205	205	15	452	452

Note: Queue reported is the distance per lane in feet.

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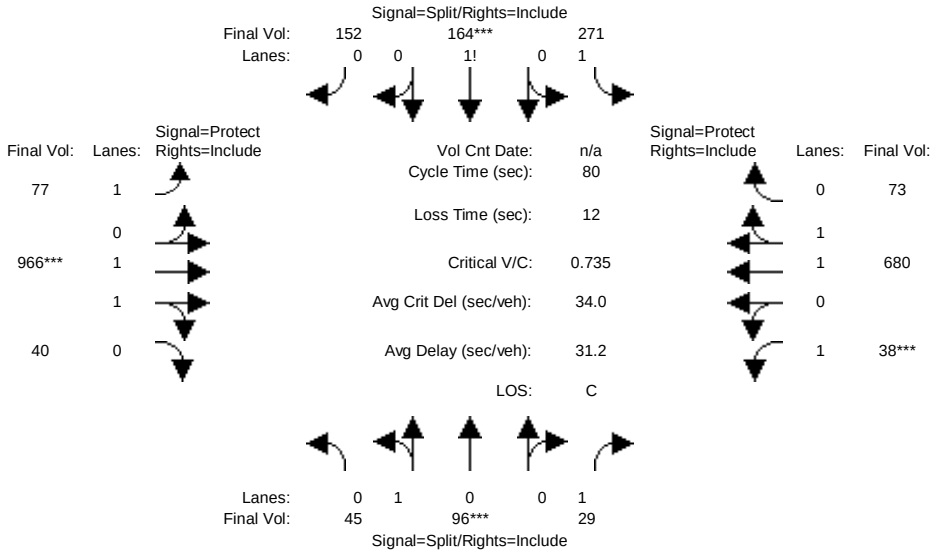
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #39: Miller Avenue/Prospect Road



Street Name:	Miller Avenue						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	45	92	29	261	155	142	72	966	40	38	680	68
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	92	29	261	155	142	72	966	40	38	680	68
Added Vol:	0	4	0	10	9	10	5	0	0	0	0	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	96	29	271	164	152	77	966	40	38	680	73
User Adj:	1.00	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:	45	96	29	271	164	152	77	966	40	38	680	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	96	29	271	164	152	77	966	40	38	680	73
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	45	96	29	271	164	152	77	966	40	38	680	73
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.95	0.95	0.92	0.97	0.95	0.92	0.98	0.95
Lanes:	0.32	0.68	1.00	1.31	0.36	0.33	1.00	1.92	0.08	1.00	1.80	0.20
Final Sat.:	574	1226	1750	2286	648	601	1750	3553	147	1750	3341	359
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.02	0.12	0.25	0.25	0.04	0.27	0.27	0.02	0.20	0.20
Crit Moves:		****			****			****			****	
Green Time:	10.0	10.0	10.0	24.6	24.6	24.6	10.0	26.4	26.4	7.0	23.4	23.4
Volume/Cap:	0.63	0.63	0.13	0.39	0.82	0.82	0.35	0.82	0.82	0.25	0.70	0.70
Uniform Del:	33.2	33.2	31.1	21.8	25.7	25.7	32.0	24.6	24.6	34.0	25.2	25.2
IncremntDel:	12.5	12.5	1.3	0.7	10.4	10.4	4.4	6.4	6.4	3.8	3.7	3.7
InitQueuDel:	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	32.4	22.5	36.1	36.1	36.3	31.0	31.0	37.9	28.9	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:	45.7	45.7	32.4	22.5	36.1	36.1	36.3	31.0	31.0	37.9	28.9	28.9
LOS by Move:	D	D	C-	C+	D+	D+	D+	C	C	D+	C	C
HCM2kAvgQ:	116	116	19	114	339	339	56	356	356	29	243	243

Note: Queue reported is the distance per lane in feet.

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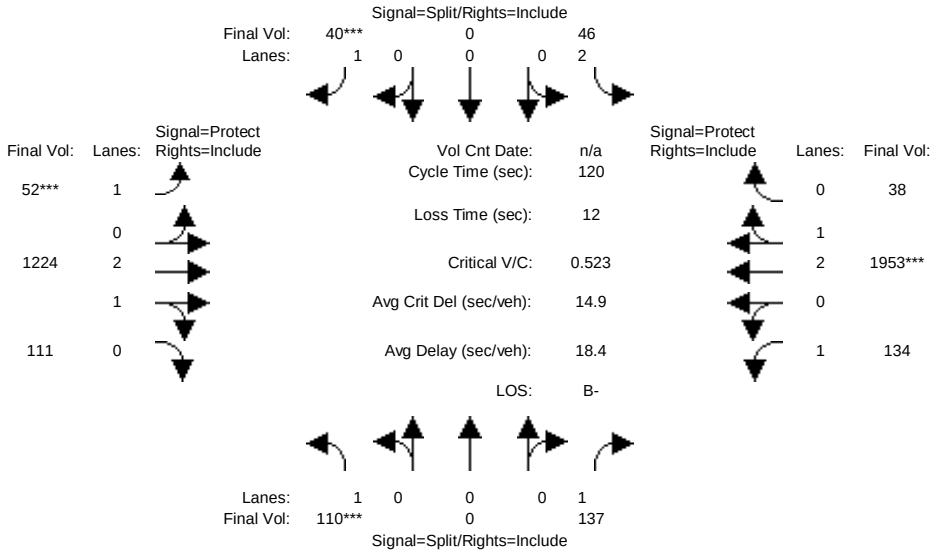
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #40: Stevens Creek Boulevard/Finch Avenue



Street Name:	Finch Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	0	10	0	0	0	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	110	0	137	46	0	40	52	1119	111	134	1647	38
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	110	0	137	46	0	40	52	1119	111	134	1647	38
Added Vol:	0	0	0	0	0	0	0	105	0	0	306	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	110	0	137	46	0	40	52	1224	111	134	1953	38
User Adj:	1.00	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:	110	0	137	46	0	40	52	1224	111	134	1953	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	110	0	137	46	0	40	52	1224	111	134	1953	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	110	0	137	46	0	40	52	1224	111	134	1953	38
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.99	0.95	0.92	0.98	0.95
Lanes:	1.00	0.00	1.00	2.00	0.00	1.00	1.00	2.74	0.26	1.00	2.94	0.06
Final Sat.:	1750	0	1750	3150	0	1750	1750	5134	466	1750	5493	107
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.08	0.01	0.00	0.02	0.03	0.24	0.24	0.08	0.36	0.36
Crit Moves:	****					****	****				****	
Green Time:	18.0	0.0	18.0	5.2	0.0	5.2	6.8	66.9	66.9	21.5	81.5	81.5
Volume/Cap:	0.42	0.00	0.52	0.33	0.00	0.52	0.52	0.43	0.43	0.43	0.52	0.52
Uniform Del:	46.3	0.0	47.1	55.7	0.0	56.2	55.0	15.4	15.4	43.8	9.6	9.6
IncremntDel:	4.9	0.0	7.3	6.4	0.0	23.3	18.3	0.4	0.4	4.2	0.5	0.5
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	51.2	0.0	54.4	62.1	0.0	79.5	73.3	15.9	15.9	48.0	10.1	10.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	51.2	0.0	54.4	62.1	0.0	79.5	73.3	15.9	15.9	48.0	10.1	10.1
LOS by Move:	D-	A	D-	E	A	E-	E	B	B	D	B+	B+
HCM2kAvgQ:	108	0	140	34	0	59	70	238	238	126	307	307

Note: Queue reported is the distance per lane in feet.

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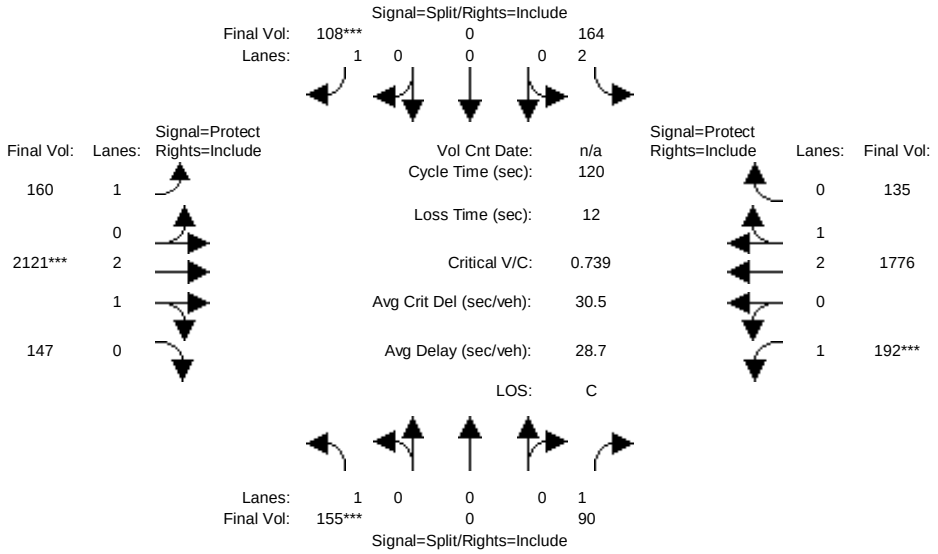
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #40: Stevens Creek Boulevard/Finch Avenue



Street Name:	Finch Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	0	10	0	0	0	7	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	155	0	90	164	0	108	160	1729	147	192	1607	135
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	155	0	90	164	0	108	160	1729	147	192	1607	135
Added Vol:	0	0	0	0	0	0	0	392	0	0	169	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	155	0	90	164	0	108	160	2121	147	192	1776	135
User Adj:	1.00	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:	155	0	90	164	0	108	160	2121	147	192	1776	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	155	0	90	164	0	108	160	2121	147	192	1776	135
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	155	0	90	164	0	108	160	2121	147	192	1776	135
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.98	0.95	0.92	0.99	0.95
Lanes:	1.00	0.00	1.00	2.00	0.00	1.00	1.00	2.80	0.20	1.00	2.78	0.22
Final Sat.:	1750	0	1750	3150	0	1750	1750	5237	363	1750	5204	396
Capacity Analysis Module:												
Vol/Sat:	0.09	0.00	0.05	0.05	0.00	0.06	0.09	0.41	0.41	0.11	0.34	0.34
Crit Moves:	****					****		****			****	
Green Time:	14.4	0.0	14.4	10.0	0.0	10.0	17.7	65.8	65.8	17.8	65.9	65.9
Volume/Cap:	0.74	0.00	0.43	0.62	0.00	0.74	0.62	0.74	0.74	0.74	0.62	0.62
Uniform Del:	51.0	0.0	49.0	53.2	0.0	53.7	48.0	20.6	20.6	48.9	18.5	18.5
IncremntDel:	20.7	0.0	6.3	10.7	0.0	28.1	10.8	1.6	1.6	17.1	1.0	1.0
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	71.7	0.0	55.3	63.8	0.0	81.8	58.8	22.2	22.2	66.0	19.4	19.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	71.7	0.0	55.3	63.8	0.0	81.8	58.8	22.2	22.2	66.0	19.4	19.4
LOS by Move:	E	A	E+	E	A	F	E+	C+	C+	E	B-	B-
HCM2kAvgQ:	190	0	94	115	0	146	173	553	553	223	409	409

Note: Queue reported is the distance per lane in feet.

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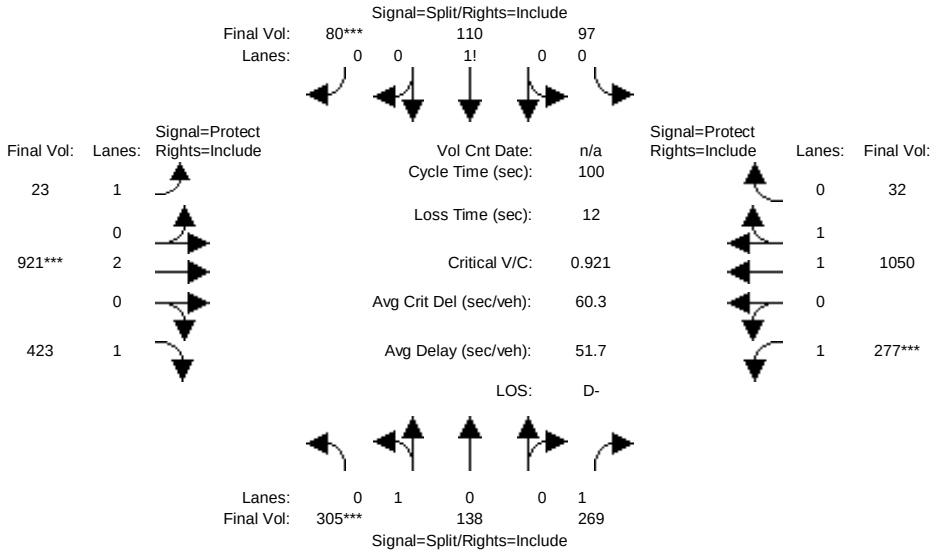
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #41: Tantau Avenue/Homestead Road



Street Name:	Tantau Avenu						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	305	138	261	97	110	80	23	902	423	250	1037	32
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	305	138	261	97	110	80	23	902	423	250	1037	32
Added Vol:	0	0	8	0	0	0	0	19	0	27	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	305	138	269	97	110	80	23	921	423	277	1050	32
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	138	269	97	110	80	23	921	423	277	1050	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	305	138	269	97	110	80	23	921	423	277	1050	32
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	305	138	269	97	110	80	23	921	423	277	1050	32
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	0.97	0.95
Lanes:	0.69	0.31	1.00	0.34	0.38	0.28	1.00	2.00	1.00	1.00	1.94	0.06
Final Sat.:	1239	561	1750	591	671	488	1750	3800	1750	1750	3590	109
Capacity Analysis Module:												
Vol/Sat:	0.25	0.25	0.15	0.16	0.16	0.16	0.01	0.24	0.24	0.16	0.29	0.29
Crit Moves:	****					****		****		****		
Green Time:	26.7	26.7	26.7	17.8	17.8	17.8	8.4	26.3	26.3	17.2	35.1	35.1
Volume/Cap:	0.92	0.92	0.58	0.92	0.92	0.92	0.16	0.92	0.92	0.92	0.83	0.83
Uniform Del:	35.6	35.6	31.7	40.4	40.4	40.4	42.5	35.8	35.8	40.7	29.8	29.8
IncremntDel:	25.5	25.5	5.1	34.3	34.3	34.3	2.3	14.9	25.9	35.2	6.4	6.4
InitQueuDel:	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:	61.1	61.1	36.8	74.8	74.8	74.8	44.8	50.7	61.7	75.9	36.2	36.2
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:	61.1	61.1	36.8	74.8	74.8	74.8	44.8	50.7	61.7	75.9	36.2	36.2
LOS by Move:	E	E	D+	E	E	E	D	D	E	E-	D+	D+
HCM2kAvgQ:	454	454	208	333	333	333	21	449	446	324	452	452

Note: Queue reported is the distance per lane in feet.

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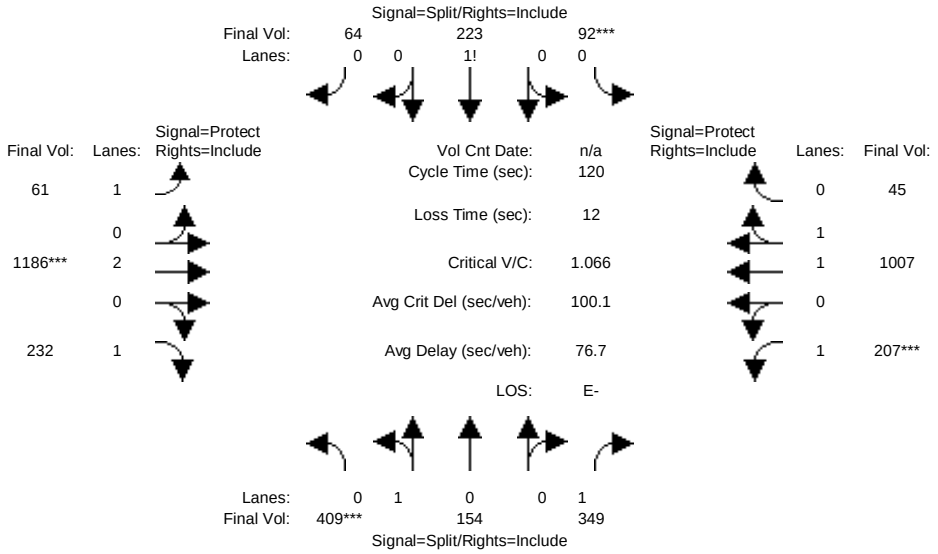
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #41: Tantau Avenue/Homestead Road



Street Name:	Tantau Avenu						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	409	154	320	92	223	64	61	1113	232	192	1000	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	409	154	320	92	223	64	61	1113	232	192	1000	45
Added Vol:	0	0	29	0	0	0	0	73	0	15	7	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	409	154	349	92	223	64	61	1186	232	207	1007	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	409	154	349	92	223	64	61	1186	232	207	1007	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	409	154	349	92	223	64	61	1186	232	207	1007	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	409	154	349	92	223	64	61	1186	232	207	1007	45
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	0.97	0.95
Lanes:	0.73	0.27	1.00	0.24	0.59	0.17	1.00	2.00	1.00	1.00	1.91	0.09
Final Sat.:	1308	492	1750	425	1030	296	1750	3800	1750	1750	3542	158
Capacity Analysis Module:												
Vol/Sat:	0.31	0.31	0.20	0.22	0.22	0.22	0.03	0.31	0.13	0.12	0.28	0.28
Crit Moves:	****			****				****		****		
Green Time:	35.2	35.2	35.2	24.4	24.4	24.4	8.2	35.1	35.1	13.3	40.2	40.2
Volume/Cap:	1.07	1.07	0.68	1.07	1.07	1.07	0.51	1.07	0.45	1.07	0.85	0.85
Uniform Del:	42.4	42.4	37.4	47.8	47.8	47.8	53.9	42.4	34.6	53.3	37.1	37.1
IncremntDel:	58.1	58.1	7.1	66.4	66.4	66.4	14.5	46.6	2.9	83.3	7.4	7.4
InitQueuDel:	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:	100.5	100	44.5	114.3	114	114.3	68.4	89.0	37.5	136.6	44.5	44.5
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:	100.5	100	44.5	114.3	114	114.3	68.4	89.0	37.5	136.6	44.5	44.5
LOS by Move:	F	F	D	F	F	F	E	F	D+	F	D	D
HCM2kAvgQ:	776	776	328	567	567	567	76	775	191	343	523	523

Note: Queue reported is the distance per lane in feet.

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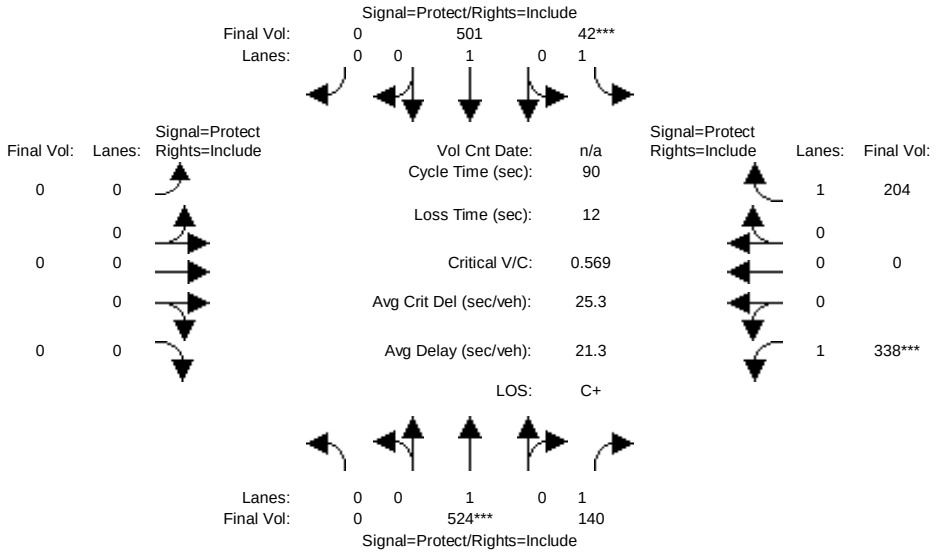
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #42: Tantau Avenue/Pruneridge Avenue



Street Name:	Tantau Avenu						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	516	124	42	474	0	0	0	0	285	0	204
Growth Adj:	1.00	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	516	124	42	474	0	0	0	0	285	0	204
Added Vol:	0	8	16	0	27	0	0	0	0	53	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	524	140	42	501	0	0	0	0	338	0	204
User Adj:	1.00	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	524	140	42	501	0	0	0	0	338	0	204
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	524	140	42	501	0	0	0	0	338	0	204
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	524	140	42	501	0	0	0	0	338	0	204
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
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	1750	1750	1900	0	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.28	0.08	0.02	0.26	0.00	0.00	0.00	0.00	0.19	0.00	0.12
Crit Moves:		****		****						****		
Green Time:	0.0	41.8	41.8	7.0	48.8	0.0	0.0	0.0	0.0	29.2	0.0	29.2
Volume/Cap:	0.00	0.59	0.17	0.31	0.49	0.00	0.00	0.00	0.00	0.59	0.00	0.36
Uniform Del:	0.0	17.9	14.1	39.2	12.8	0.0	0.0	0.0	0.0	25.4	0.0	23.2
IncremntDel:	0.0	2.9	0.5	5.8	1.6	0.0	0.0	0.0	0.0	4.5	0.0	1.8
InitQueuDel:	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	20.8	14.5	45.0	14.5	0.0	0.0	0.0	0.0	29.9	0.0	25.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	20.8	14.5	45.0	14.5	0.0	0.0	0.0	0.0	29.9	0.0	25.0
LOS by Move:	A	C+	B	D	B	A	A	A	A	C	A	C
HCM2kAvgQ:	0	278	61	38	218	0	0	0	0	227	0	120

Note: Queue reported is the distance per lane in feet.

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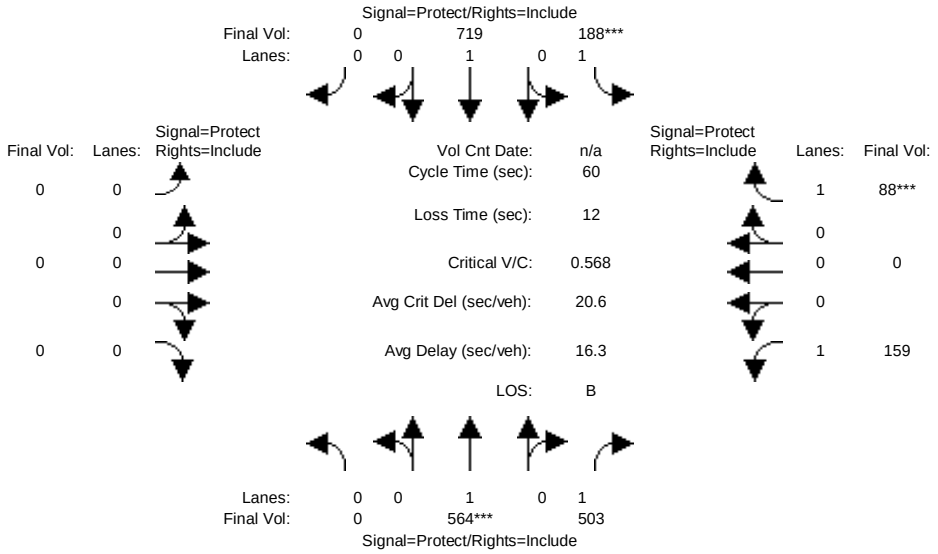
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #42: Tantau Avenue/Pruneridge Avenue



Street Name:	Tantau Avenu						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	535	445	188	704	0	0	0	0	130	0	88
Growth Adj:	1.00	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	535	445	188	704	0	0	0	0	130	0	88
Added Vol:	0	29	58	0	15	0	0	0	0	29	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	564	503	188	719	0	0	0	0	159	0	88
User Adj:	1.00	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	564	503	188	719	0	0	0	0	159	0	88
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	564	503	188	719	0	0	0	0	159	0	88
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	564	503	188	719	0	0	0	0	159	0	88
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
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	1750	1750	1900	0	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.30	0.29	0.11	0.38	0.00	0.00	0.00	0.00	0.09	0.00	0.05
Crit Moves:		****		****								****
Green Time:	0.0	27.9	27.9	10.1	38.0	0.0	0.0	0.0	0.0	10.0	0.0	10.0
Volume/Cap:	0.00	0.64	0.62	0.64	0.60	0.00	0.00	0.00	0.00	0.55	0.00	0.30
Uniform Del:	0.0	12.2	12.0	23.2	6.5	0.0	0.0	0.0	0.0	22.9	0.0	21.9
IncremntDel:	0.0	3.5	3.5	10.2	2.2	0.0	0.0	0.0	0.0	7.1	0.0	2.6
InitQueuDel:	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	15.7	15.6	33.4	8.7	0.0	0.0	0.0	0.0	30.1	0.0	24.6
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	15.7	15.6	33.4	8.7	0.0	0.0	0.0	0.0	30.1	0.0	24.6
LOS by Move:	A	B	B	C-	A	A	A	A	A	C	A	C
HCM2kAvgQ:	0	221	210	119	213	0	0	0	0	94	0	46

Note: Queue reported is the distance per lane in feet.

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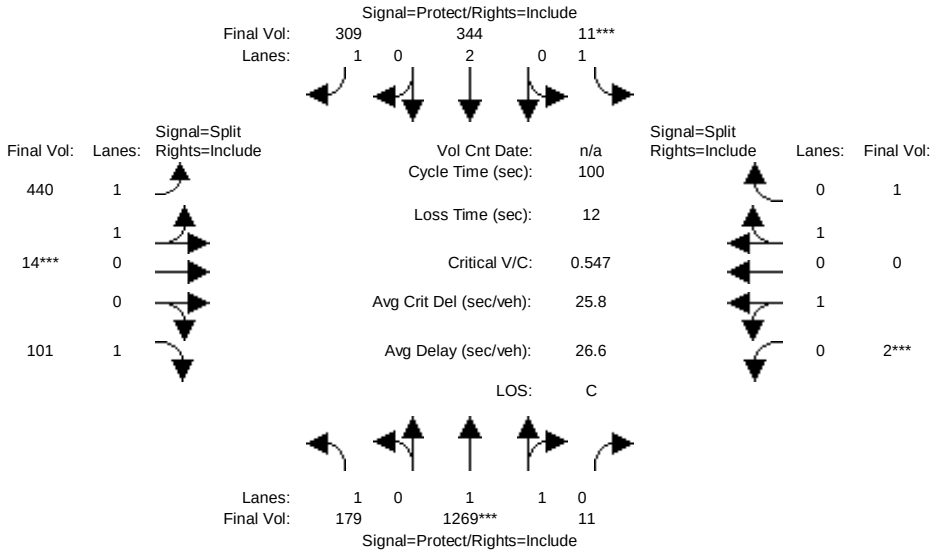
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #43: Tantau Avenue/Vallco Parkway



Street Name:	Tantau Avenu						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	179	1269	11	11	344	309	440	14	101	2	0	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	179	1269	11	11	344	309	440	14	101	2	0	1
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:	179	1269	11	11	344	309	440	14	101	2	0	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	179	1269	11	11	344	309	440	14	101	2	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	179	1269	11	11	344	309	440	14	101	2	0	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	179	1269	11	11	344	309	440	14	101	2	0	1
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	1.00	0.92	0.93	0.95	0.92	0.95	1.00	0.95
Lanes:	1.00	1.98	0.02	1.00	2.00	1.00	1.94	0.06	1.00	1.00	0.00	1.00
Final Sat.:	1750	3668	32	1750	3800	1750	3441	109	1750	1800	0	1800
Capacity Analysis Module:												
Vol/Sat:	0.10	0.35	0.35	0.01	0.09	0.18	0.13	0.13	0.06	0.00	0.00	0.00
Crit Moves:		****		****				****		****		
Green Time:	21.6	51.8	51.8	7.0	37.3	37.3	19.2	19.2	19.2	10.0	0.0	10.0
Volume/Cap:	0.47	0.67	0.67	0.09	0.24	0.47	0.67	0.67	0.30	0.01	0.00	0.01
Uniform Del:	34.3	17.7	17.7	43.5	21.6	23.9	37.5	37.5	34.7	40.5	0.0	40.5
IncremntDel:	4.2	1.9	1.9	1.4	0.4	2.5	5.1	5.1	2.3	0.1	0.0	0.0
InitQueuDel:	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	0.00	1.00
Delay/Veh:	38.5	19.6	19.6	45.0	22.1	26.4	42.6	42.6	37.0	40.6	0.0	40.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	38.5	19.6	19.6	45.0	22.1	26.4	42.6	42.6	37.0	40.6	0.0	40.5
LOS by Move:	D+	B-	B-	D	C+	C	D	D	D+	D	A	D
HCM2kAvgQ:	140	384	384	10	90	200	201	201	76	2	0	1

Note: Queue reported is the distance per lane in feet.

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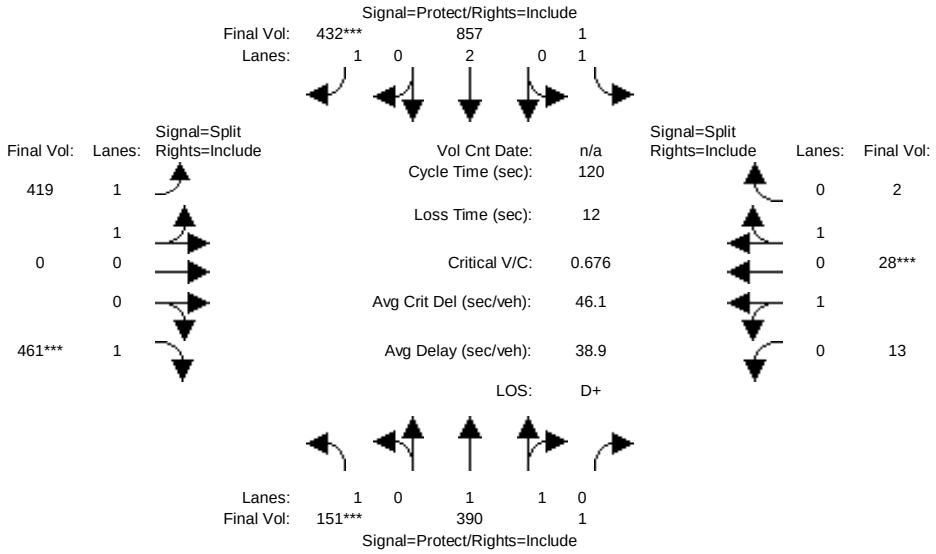
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #43: Tantau Avenue/Vallco Parkway



Street Name:	Tantau Avenu						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	151	390	1	1	857	432	419	0	461	13	28	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	151	390	1	1	857	432	419	0	461	13	28	2
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:	151	390	1	1	857	432	419	0	461	13	28	2
User Adj:	1.00	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:	151	390	1	1	857	432	419	0	461	13	28	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	151	390	1	1	857	432	419	0	461	13	28	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	151	390	1	1	857	432	419	0	461	13	28	2
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	1.00	0.92	0.93	1.00	0.92	0.95	0.95	0.95
Lanes:	1.00	1.99	0.01	1.00	2.00	1.00	2.00	0.00	1.00	0.60	1.31	0.09
Final Sat.:	1750	3691	9	1750	3800	1750	3550	0	1750	1088	2344	167
Capacity Analysis Module:												
Vol/Sat:	0.09	0.11	0.11	0.00	0.23	0.25	0.12	0.00	0.26	0.01	0.01	0.01
Crit Moves:	****					****			****		****	
Green Time:	14.2	35.3	35.3	19.5	40.6	40.6	43.3	0.0	43.3	10.0	10.0	10.0
Volume/Cap:	0.73	0.36	0.36	0.00	0.67	0.73	0.33	0.00	0.73	0.14	0.14	0.14
Uniform Del:	51.1	33.5	33.5	42.1	34.0	34.9	27.8	0.0	33.3	51.0	51.0	51.0
IncremntDel:	20.2	0.9	0.9	0.0	2.8	7.8	0.7	0.0	7.3	1.0	1.0	1.0
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00
Delay/Veh:	71.3	34.4	34.4	42.2	36.7	42.7	28.5	0.0	40.6	52.0	52.0	52.0
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:	71.3	34.4	34.4	42.2	36.7	42.7	28.5	0.0	40.6	52.0	52.0	52.0
LOS by Move:	E	C-	C-	D	D+	D	C	A	D	D-	D-	D-
HCM2kAvgQ:	185	146	146	1	352	404	148	0	423	22	22	22

Note: Queue reported is the distance per lane in feet.

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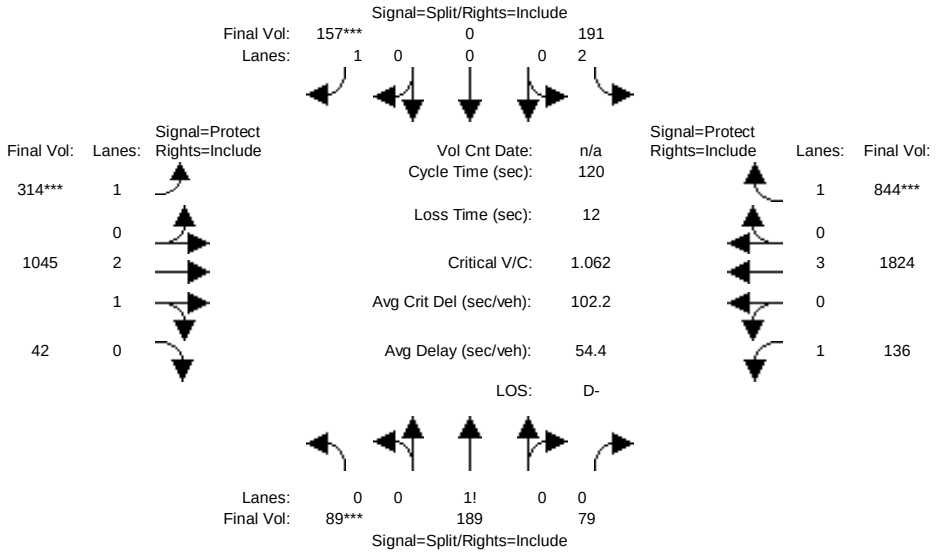
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #44: Tantau Avenue/Stevens Creek Boulevard



Street Name:	Tantau Avenu						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	89	189	79	191	0	157	314	1045	42	136	1824	844
Growth Adj:	1.00	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	189	79	191	0	157	314	1045	42	136	1824	844
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	189	79	191	0	157	314	1045	42	136	1824	844
User Adj:	1.00	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	189	79	191	0	157	314	1045	42	136	1824	844
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	189	79	191	0	157	314	1045	42	136	1824	844
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	189	79	191	0	157	314	1045	42	136	1824	844
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.83	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92
Lanes:	0.25	0.53	0.22	2.00	0.00	1.00	1.00	2.88	0.12	1.00	3.00	1.00
Final Sat.:	436	926	387	3150	0	1750	1750	5383	216	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.20	0.20	0.20	0.06	0.00	0.09	0.18	0.19	0.19	0.08	0.32	0.48
Crit Moves:	****					****	****					****
Green Time:	23.1	23.1	23.1	10.1	0.0	10.1	20.3	53.4	53.4	21.4	54.5	54.5
Volume/Cap:	1.06	1.06	1.06	0.72	0.00	1.06	1.06	0.44	0.44	0.44	0.70	1.06
Uniform Del:	48.5	48.5	48.5	53.5	0.0	54.9	49.9	22.9	22.9	43.9	26.3	32.7
IncremntDel:	66.3	66.3	66.3	15.3	0.0	91.4	69.5	0.6	0.6	4.4	1.6	49.5
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	114.8	115	114.8	68.9	0.0	146.3	119.4	23.5	23.5	48.3	27.9	82.3
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:	114.8	115	114.8	68.9	0.0	146.3	119.4	23.5	23.5	48.3	27.9	82.3
LOS by Move:	F	F	F	E	A	F	F	C	C	D	C	F
HCM2kAvgQ:	536	536	536	141	0	274	481	231	231	128	462	1127

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
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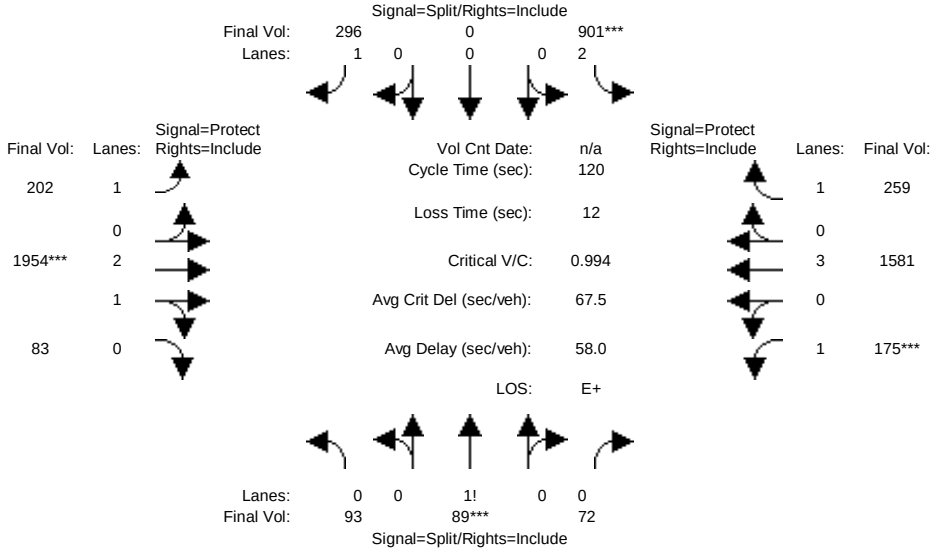
Ex V82 + A + Pend + Proj PM

Intersection #44: Tantau Avenue/Stevens Creek Boulevard



Street Name:	Tantau Avenu						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	93	89	72	901	0	296	202	1954	83	175	1581	259
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	93	89	72	901	0	296	202	1954	83	175	1581	259
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:	93	89	72	901	0	296	202	1954	83	175	1581	259
User Adj:	1.00	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	89	72	901	0	296	202	1954	83	175	1581	259
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	93	89	72	901	0	296	202	1954	83	175	1581	259
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	89	72	901	0	296	202	1954	83	175	1581	259
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.83	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92
Lanes:	0.37	0.35	0.28	2.00	0.00	1.00	1.00	2.87	0.13	1.00	3.00	1.00
Final Sat.:	641	613	496	3150	0	1750	1750	5372	228	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.15	0.15	0.15	0.29	0.00	0.17	0.12	0.36	0.36	0.10	0.28	0.15
Crit Moves:		****		****				****		****		
Green Time:	17.5	17.5	17.5	34.5	0.0	34.5	16.4	43.9	43.9	12.1	39.5	39.5
Volume/Cap:	0.99	0.99	0.99	0.99	0.00	0.59	0.84	0.99	0.99	0.99	0.84	0.45
Uniform Del:	51.2	51.2	51.2	42.6	0.0	36.6	50.5	37.9	37.9	53.9	37.3	31.7
IncremntDel:	54.9	54.9	54.9	28.6	0.0	5.0	28.6	18.6	18.6	66.4	4.8	2.5
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	106.1	106	106.1	71.2	0.0	41.6	79.1	56.5	56.5	120.3	42.1	34.2
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:	106.1	106	106.1	71.2	0.0	41.6	79.1	56.5	56.5	120.3	42.1	34.2
LOS by Move:	F	F	F	E	A	D	E-	E+	E+	F	D	C-
HCM2kAvgQ:	374	374	374	653	0	264	260	800	800	278	508	204

Note: Queue reported is the distance per lane in feet.

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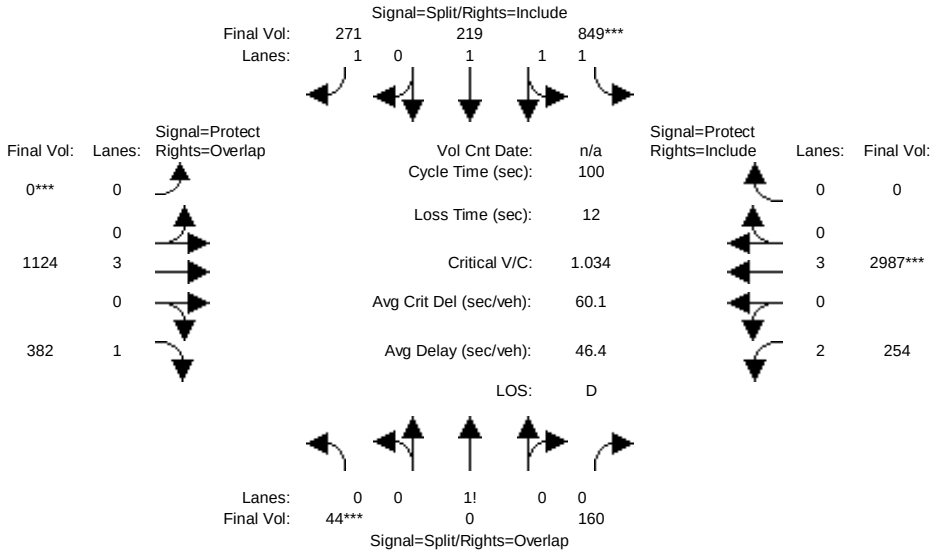
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #45: Stevens Creek Boulevard/Calvert Drive/I-280 Ramps



Street Name:	Stevens Creek Boulevard						Calvert Drive/I-280 Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	0	10	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	44	0	160	849	219	271	0	1085	292	254	2601	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:	44	0	160	849	219	271	0	1085	292	254	2601	0
Added Vol:	0	0	0	0	0	0	0	39	90	0	386	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	0	160	849	219	271	0	1124	382	254	2987	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:	44	0	160	849	219	271	0	1124	382	254	2987	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	0	160	849	219	271	0	1124	382	254	2987	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:	44	0	160	849	219	271	0	1124	382	254	2987	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.22	0.00	0.78	2.00	1.00	1.00	0.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:	377	0	1373	3150	1900	1750	0	5700	1750	3150	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.12	0.00	0.12	0.27	0.12	0.15	0.00	0.20	0.22	0.08	0.52	0.00
Crit Moves:	****			****			****				****	
Green Time:	11.3	0.0	26.0	26.1	26.1	26.1	0.0	36.0	47.2	14.7	50.7	0.0
Volume/Cap:	1.03	0.00	0.45	1.03	0.44	0.59	0.00	0.55	0.46	0.55	1.03	0.00
Uniform Del:	44.4	0.0	31.0	37.0	30.9	32.3	0.0	25.5	17.8	39.6	24.7	0.0
IncremntDel:	73.3	0.0	3.2	37.2	0.6	5.6	0.0	1.1	1.9	4.6	26.4	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	117.7	0.0	34.2	74.2	31.5	38.0	0.0	26.6	19.7	44.2	51.1	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:	117.7	0.0	34.2	74.2	31.5	38.0	0.0	26.6	19.7	44.2	51.1	0.0
LOS by Move:	F	A	C-	E	C	D+	A	C	B-	D	D-	A
HCM2kAvgQ:	297	0	149	584	146	213	0	237	216	127	1027	0

Note: Queue reported is the distance per lane in feet.

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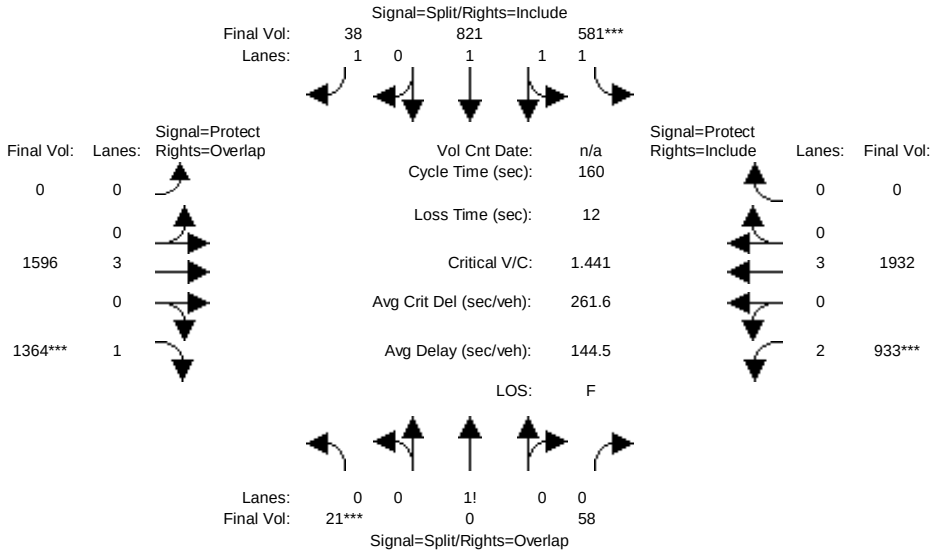
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #45: Stevens Creek Boulevard/Calvert Drive/I-280 Ramps



Street Name:	Stevens Creek Boulevard						Calvert Drive/I-280 Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	0	10	10	10	10	0	10	10	36	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	21	0	58	581	821	38	0	1451	1030	933	1719	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:	21	0	58	581	821	38	0	1451	1030	933	1719	0
Added Vol:	0	0	0	0	0	0	0	145	334	0	213	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	0	58	581	821	38	0	1596	1364	933	1932	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:	21	0	58	581	821	38	0	1596	1364	933	1932	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	0	58	581	821	38	0	1596	1364	933	1932	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:	21	0	58	581	821	38	0	1596	1364	933	1932	0
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	0.98	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.27	0.00	0.73	1.28	1.72	1.00	0.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:	465	0	1285	2257	3189	1750	0	5700	1750	3150	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.00	0.05	0.26	0.26	0.02	0.00	0.28	0.78	0.30	0.34	0.00
Crit Moves:	****			****					****	****		
Green Time:	10.0	0.0	46.0	26.9	26.9	26.9	0.0	75.1	85.1	36.0	111	0.0
Volume/Cap:	0.72	0.00	0.16	1.53	1.53	0.13	0.00	0.60	1.47	1.32	0.49	0.00
Uniform Del:	73.6	0.0	42.5	66.5	66.5	56.5	0.0	31.3	37.5	62.0	11.3	0.0
IncremntDel:	33.7	0.0	0.7	243.3	243	0.9	0.0	1.0	215.7	152.3	0.4	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	107.3	0.0	43.2	309.9	310	57.5	0.0	32.3	253.2	214.3	11.8	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:	107.3	0.0	43.2	309.9	310	57.5	0.0	32.3	253.2	214.3	11.8	0.0
LOS by Move:	F	A	D	F	F	E+	A	C-	F	F	B+	A
HCM2kAvgQ:	139	0	76	1136	1136	43	0	472	3192	1134	355	0

Note: Queue reported is the distance per lane in feet.

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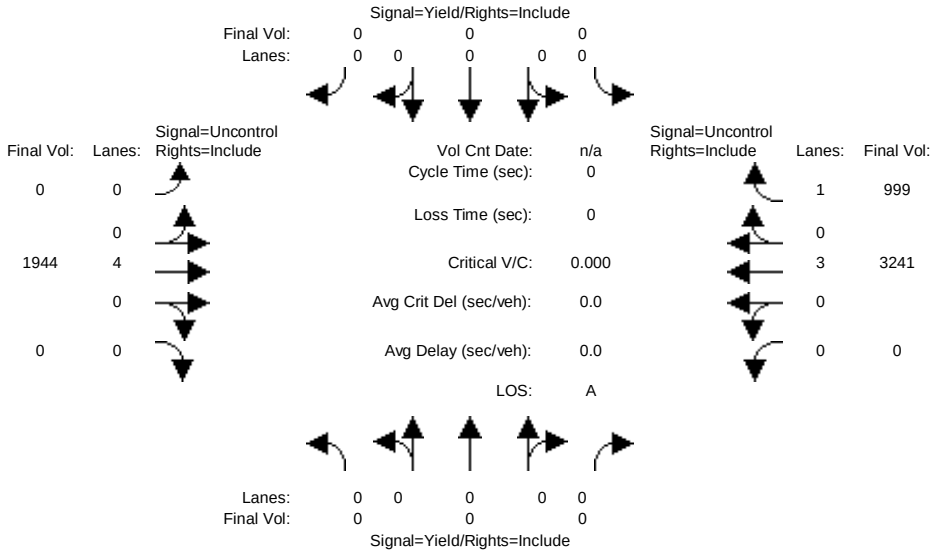
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #46: Stevens Creek Boulevard/I-280 Ramps East



Street Name:	Stevens Creek Boulevard						I-280 Ramps East					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	1905	0	0	2855	999
Growth Adj:	1.00	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	0	0	0	0	1905	0	0	2855	999
Added Vol:	0	0	0	0	0	0	0	39	0	0	386	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	0	0	1944	0	0	3241	999
User Adj:	1.00	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	0	0	0	0	1944	0	0	3241	999
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	0	1944	0	0	3241	999
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #46 Stevens Creek Boulevard/I-280 Ramps East

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0	0 0	0	0 0 0	0 0	0	0 0 4	0 0	0	0 0 3	0 1	
Initial Vol:	0	0	0	0	0	0	0	1944	0	0	3241	999
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #46 Stevens Creek Boulevard/I-280 Ramps East

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0	0 0	0	0 0 0	0 0	0	0 0 4	0 0	0	0 0 3	0 1	
Initial Vol:	0	0	0	0	0	0	0	1944	0	0	3241	999

Major Street Volume: 6184
Minor Approach Volume: 0
Minor Approach Volume Threshold: -343 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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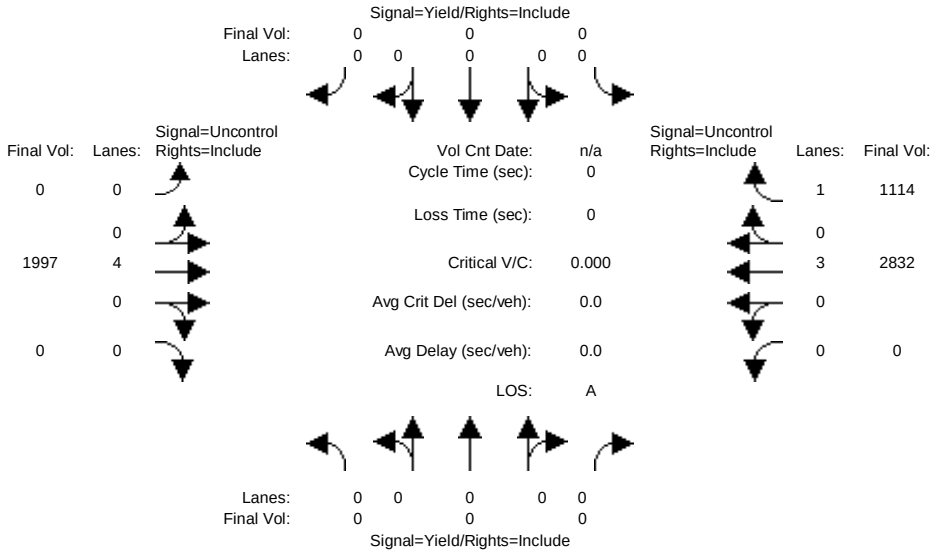
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #46: Stevens Creek Boulevard/I-280 Ramps East



Street Name:	Stevens Creek Boulevard						I-280 Ramps East					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	1852	0	0	2619	1114
Growth Adj:	1.00	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	0	0	0	0	1852	0	0	2619	1114
Added Vol:	0	0	0	0	0	0	0	145	0	0	213	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	0	0	1997	0	0	2832	1114
User Adj:	1.00	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	0	0	0	0	1997	0	0	2832	1114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	0	1997	0	0	2832	1114
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #46 Stevens Creek Boulevard/I-280 Ramps East

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0	0 0	0	0 0 0	0 0	0	0 0 4	0 0	0	0 0 3	0 1	
Initial Vol:	0	0	0	0	0	0	0	1997	0	0	2832	1114
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #46 Stevens Creek Boulevard/I-280 Ramps East

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0	0 0	0	0 0 0	0 0	0	0 0 4	0 0	0	0 0 3	0 1	
Initial Vol:	0	0	0	0	0	0	0	1997	0	0	2832	1114

Major Street Volume: 5943
Minor Approach Volume: 0
Minor Approach Volume Threshold: -329 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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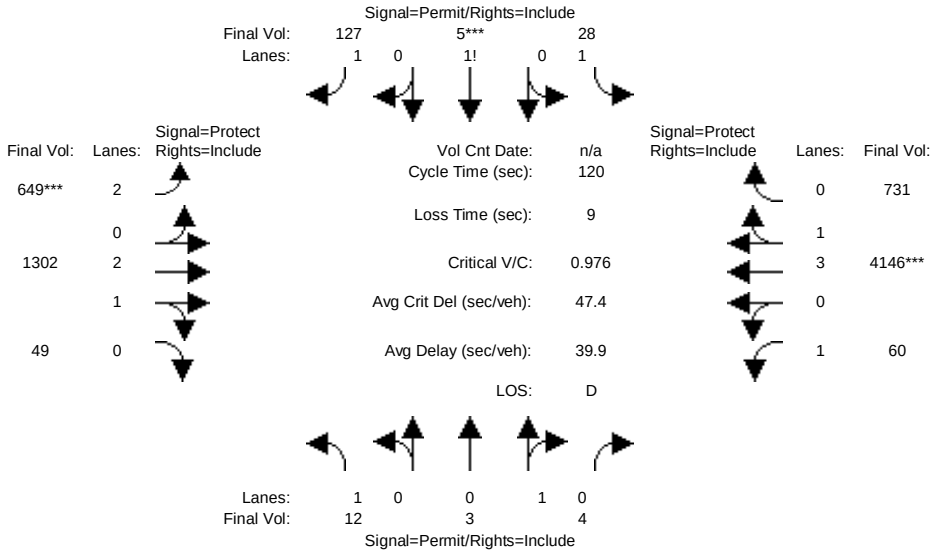
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #47: Stevens Creek Boulevard/Agilent Driveway



Street Name:	Stevens Creek Boulevard						Agilent Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	25	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	12	3	4	28	5	127	649	1263	49	60	3760	731
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	3	4	28	5	127	649	1263	49	60	3760	731
Added Vol:	0	0	0	0	0	0	0	39	0	0	386	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	3	4	28	5	127	649	1302	49	60	4146	731
User Adj:	1.00	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:	12	3	4	28	5	127	649	1302	49	60	4146	731
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	3	4	28	5	127	649	1302	49	60	4146	731
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	12	3	4	28	5	127	649	1302	49	60	4146	731
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.83	0.98	0.95	0.92	0.99	0.95
Lanes:	1.00	0.43	0.57	1.17	0.06	1.77	2.00	2.89	0.11	1.00	3.38	0.62
Final Sat.:	1750	771	1029	2054	109	3179	3150	5397	203	1750	6374	1124
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.00	0.01	0.05	0.04	0.21	0.24	0.24	0.03	0.65	0.65
Crit Moves:					****		****				****	
Green Time:	10.0	10.0	10.0	10.0	10.0	10.0	25.0	81.3	81.3	19.7	76.0	76.0
Volume/Cap:	0.08	0.05	0.05	0.16	0.55	0.48	0.99	0.36	0.36	0.21	1.03	1.03
Uniform Del:	50.8	50.6	50.6	51.1	52.9	52.5	47.4	8.2	8.2	43.4	22.0	22.0
IncremntDel:	1.1	0.6	0.6	0.4	7.4	4.9	32.5	0.3	0.3	1.7	20.7	20.7
InitQueuDel:	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:	51.9	51.2	51.2	51.5	60.3	57.4	79.9	8.5	8.5	45.1	42.7	42.7
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:	51.9	51.2	51.2	51.5	60.3	57.4	79.9	8.5	8.5	45.1	42.7	42.7
LOS by Move:	D-	D-	D-	D-	E	E+	E-	A	A	D	D	D
HCM2kAvgQ:	12	7	7	25	98	82	493	176	176	54	1396	1396

Note: Queue reported is the distance per lane in feet.

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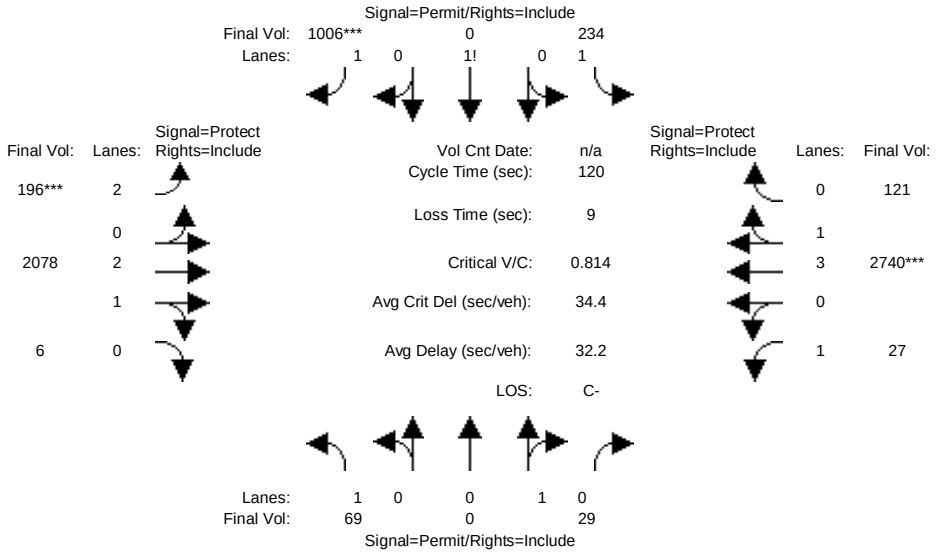
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #47: Stevens Creek Boulevard/Agilent Driveway



Street Name:	Stevens Creek Boulevard						Agilent Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	69	0	29	234	0	1006	196	1933	6	27	2527	121
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	69	0	29	234	0	1006	196	1933	6	27	2527	121
Added Vol:	0	0	0	0	0	0	0	145	0	0	213	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	69	0	29	234	0	1006	196	2078	6	27	2740	121
User Adj:	1.00	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:	69	0	29	234	0	1006	196	2078	6	27	2740	121
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	69	0	29	234	0	1006	196	2078	6	27	2740	121
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	69	0	29	234	0	1006	196	2078	6	27	2740	121
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.95	0.92	1.00	0.95	0.83	0.98	0.95	0.92	0.99	0.95
Lanes:	1.00	0.00	1.00	1.19	0.00	1.81	2.00	2.99	0.01	1.00	3.82	0.18
Final Sat.:	1750	0	1800	2088	0	3252	3150	5584	16	1750	7182	317
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.02	0.11	0.00	0.31	0.06	0.37	0.37	0.02	0.38	0.38
Crit Moves:						****	****				****	
Green Time:	45.6	0.0	45.6	45.6	0.0	45.6	9.2	56.5	56.5	8.9	56.2	56.2
Volume/Cap:	0.10	0.00	0.04	0.29	0.00	0.81	0.81	0.79	0.79	0.21	0.81	0.81
Uniform Del:	24.0	0.0	23.4	26.0	0.0	33.4	54.6	26.7	26.7	52.3	27.4	27.4
IncremntDel:	0.3	0.0	0.1	0.2	0.0	4.9	25.2	2.5	2.5	3.6	2.2	2.2
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	24.3	0.0	23.6	26.2	0.0	38.3	79.7	29.2	29.2	55.9	29.6	29.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.3	0.0	23.6	26.2	0.0	38.3	79.7	29.2	29.2	55.9	29.6	29.6
LOS by Move:	C	A	C	C	A	D+	E-	C	C	E+	C	C
HCM2kAvgQ:	43	0	17	134	0	530	160	579	579	29	612	612

Note: Queue reported is the distance per lane in feet.

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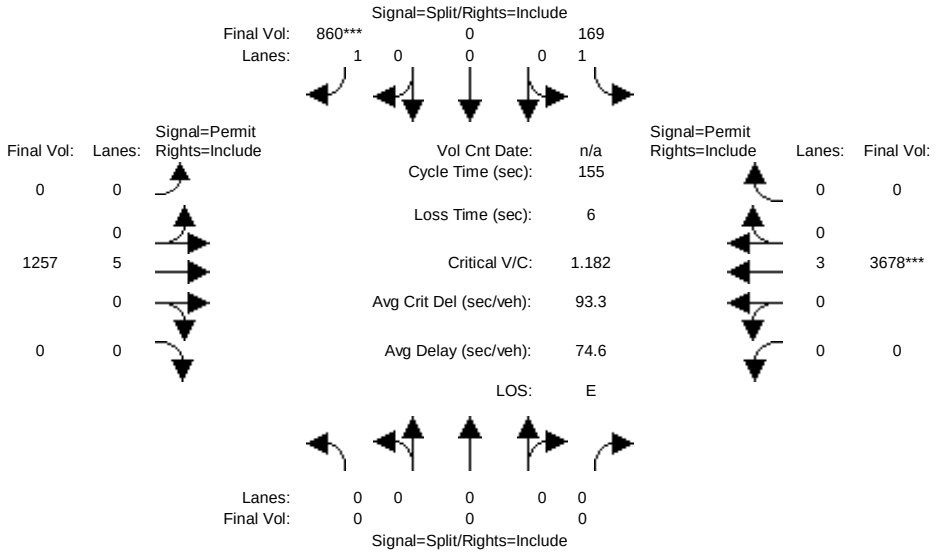
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #48: Stevens Creek Boulevard/Lawrence Expressway Ramps West



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps West					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	0	0	20	0	20	0	100	0	0	100	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	169	0	754	0	1218	0	0	3399	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	169	0	754	0	1218	0	0	3399	0
Added Vol:	0	0	0	0	0	106	0	39	0	0	279	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	169	0	860	0	1257	0	0	3678	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	0	0	169	0	860	0	1257	0	0	3678	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	169	0	860	0	1257	0	0	3678	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	169	0	860	0	1257	0	0	3678	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	5.00	0.00	0.00	3.00	0.00
Final Sat.:	0	0	0	1750	0	1750	0	9500	0	0	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.10	0.00	0.49	0.00	0.13	0.00	0.00	0.65	0.00
Crit Moves:						****					****	
Green Time:	0.0	0.0	0.0	49.0	0.0	49.0	0.0	100	0.0	0.0	100	0.0
Volume/Cap:	0.00	0.00	0.00	0.31	0.00	1.55	0.00	0.21	0.00	0.00	1.00	0.00
Uniform Del:	0.0	0.0	0.0	40.1	0.0	53.0	0.0	11.2	0.0	0.0	27.5	0.0
IncremntDel:	0.0	0.0	0.0	1.4	0.0	258.3	0.0	0.1	0.0	0.0	14.9	0.0
InitQueuDel:	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	41.5	0.0	311.3	0.0	11.3	0.0	0.0	42.4	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	41.5	0.0	311.3	0.0	11.3	0.0	0.0	42.4	0.0
LOS by Move:	A	A	A	D	A	F	A	B+	A	A	D	A
HCM2kAvgQ:	0	0	0	160	0	2112	0	117	0	0	1514	0

Note: Queue reported is the distance per lane in feet.

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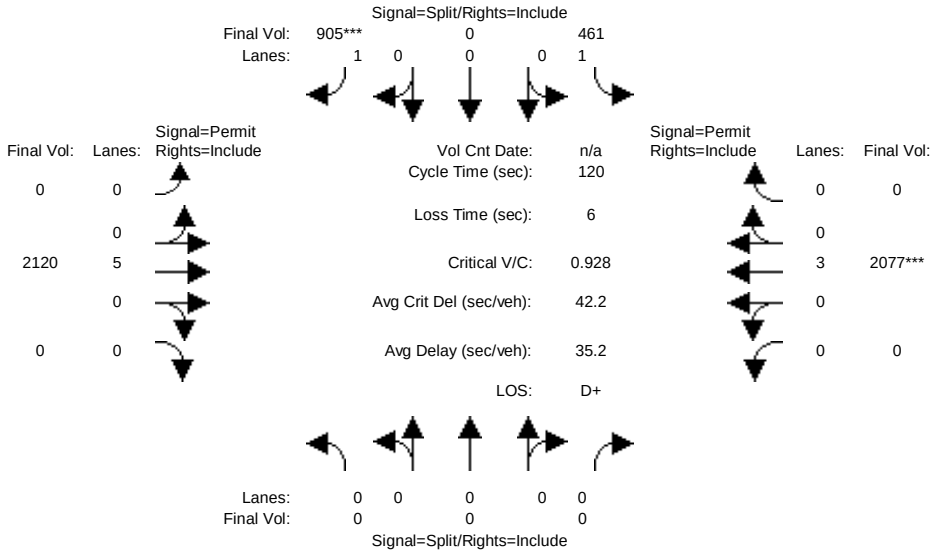
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #48: Stevens Creek Boulevard/Lawrence Expressway Ramps West



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps West					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	10	0	10	0	10	0	0	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	461	0	846	0	1975	0	0	1922	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	461	0	846	0	1975	0	0	1922	0
Added Vol:	0	0	0	0	0	59	0	145	0	0	155	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	461	0	905	0	2120	0	0	2077	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	0	0	461	0	905	0	2120	0	0	2077	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	461	0	905	0	2120	0	0	2077	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	461	0	905	0	2120	0	0	2077	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	5.00	0.00	0.00	3.00	0.00
Final Sat.:	0	0	0	1750	0	1750	0	9500	0	0	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.26	0.00	0.52	0.00	0.22	0.00	0.00	0.36	0.00
Crit Moves:						****					****	
Green Time:	0.0	0.0	0.0	66.9	0.0	66.9	0.0	47.1	0.0	0.0	47.1	0.0
Volume/Cap:	0.00	0.00	0.00	0.47	0.00	0.93	0.00	0.57	0.00	0.00	0.93	0.00
Uniform Del:	0.0	0.0	0.0	16.0	0.0	24.4	0.0	28.5	0.0	0.0	34.8	0.0
IncremntDel:	0.0	0.0	0.0	1.6	0.0	15.9	0.0	0.6	0.0	0.0	8.3	0.0
InitQueuDel:	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	40.3	0.0	29.1	0.0	0.0	43.1	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	17.6	0.0	40.3	0.0	29.1	0.0	0.0	43.1	0.0
LOS by Move:	A	A	A	B	A	D	A	C	A	A	D	A
HCM2kAvgQ:	0	0	0	273	0	933	0	308	0	0	688	0

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
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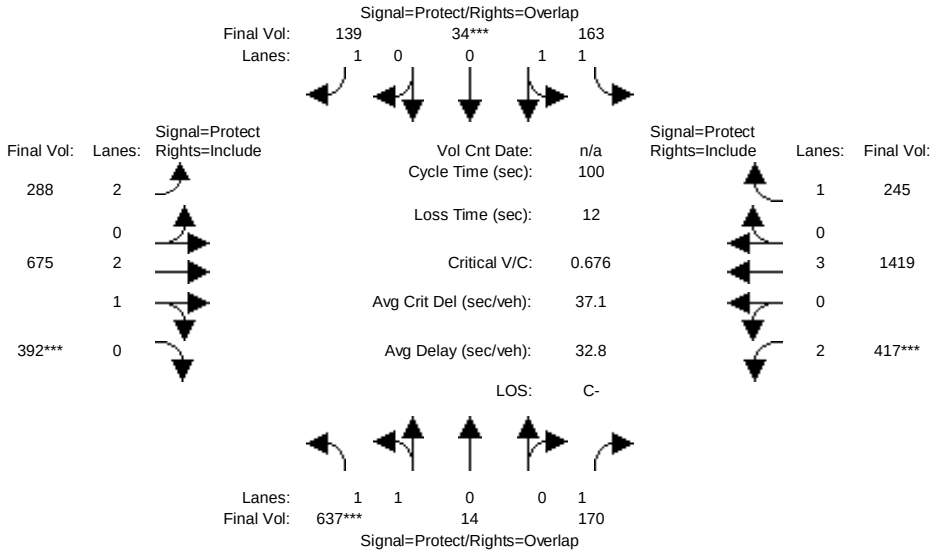
Intersection #49: Lawrence Expressway Ramps/El Camino Real



Street Name:	Lawrence Expressway Ramp						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	637	14	166	163	34	112	280	671	392	404	1406	245
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	637	14	166	163	34	112	280	671	392	404	1406	245
Added Vol:	0	0	4	0	0	27	8	4	0	13	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	637	14	170	163	34	139	288	675	392	417	1419	245
User Adj:	1.00	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:	637	14	170	163	34	139	288	675	392	417	1419	245
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	637	14	170	163	34	139	288	675	392	417	1419	245
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	637	14	170	163	34	139	288	675	392	417	1419	245
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.93	0.95	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	1.96	0.04	1.00	1.66	0.34	1.00	2.00	2.00	1.00	2.00	3.00	1.00
Final Sat.:	3474	76	1750	2937	613	1750	3150	3800	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.18	0.18	0.10	0.06	0.06	0.08	0.09	0.18	0.22	0.13	0.25	0.14
Crit Moves:	****				****				****	****		
Green Time:	26.5	26.4	45.5	10.1	10.0	23.8	13.8	32.4	32.4	19.1	37.7	37.7
Volume/Cap:	0.69	0.69	0.21	0.55	0.55	0.33	0.66	0.55	0.69	0.69	0.66	0.37
Uniform Del:	33.1	33.2	16.4	42.8	42.9	31.5	40.9	27.8	29.5	37.7	25.9	22.6
IncremntDel:	4.2	4.2	0.6	6.0	6.1	2.1	7.7	1.1	2.6	6.4	1.6	1.6
InitQueuDel:	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:	37.3	37.4	17.0	48.8	49.0	33.7	48.5	28.9	32.0	44.1	27.5	24.2
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:	37.3	37.4	17.0	48.8	49.0	33.7	48.5	28.9	32.0	44.1	27.5	24.2
LOS by Move:	D+	D+	B	D	D	C-	D	C	C-	D	C	C
HCM2kAvgQ:	269	269	84	97	98	99	157	222	309	212	319	149

Note: Queue reported is the distance per lane in feet.

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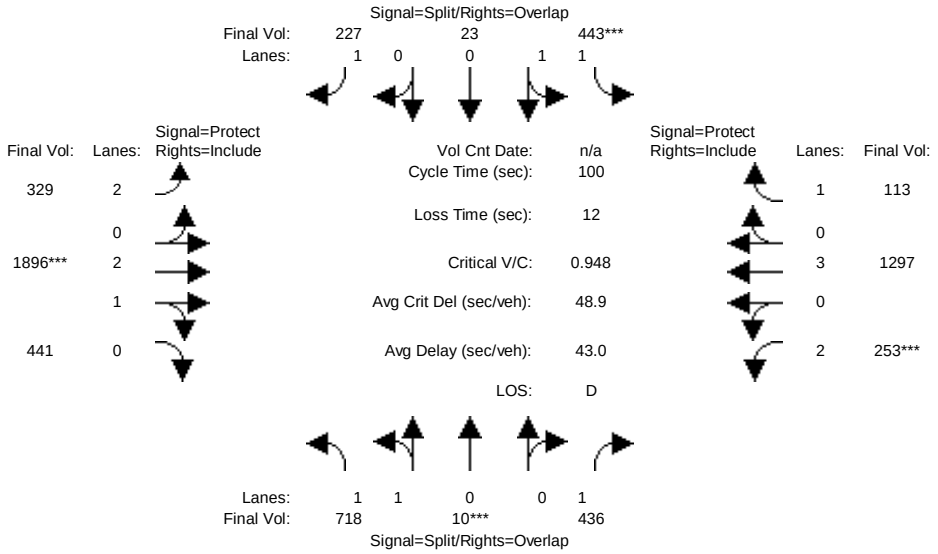
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #49: Lawrence Expressway Ramps/El Camino Real



Street Name:	Lawrence Expressway Ramp						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	718	10	421	443	23	212	300	1881	441	246	1290	113
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	718	10	421	443	23	212	300	1881	441	246	1290	113
Added Vol:	0	0	15	0	0	15	29	15	0	7	7	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	718	10	436	443	23	227	329	1896	441	253	1297	113
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	718	10	436	443	23	227	329	1896	441	253	1297	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	718	10	436	443	23	227	329	1896	441	253	1297	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	718	10	436	443	23	227	329	1896	441	253	1297	113
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.93	0.95	0.92	0.83	0.99	0.95	0.83	1.00	0.92
Lanes:	1.97	0.03	1.00	1.90	0.10	1.00	2.00	2.41	0.59	2.00	3.00	1.00
Final Sat.:	3501	49	1750	3375	175	1750	3150	4542	1056	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.21	0.21	0.25	0.13	0.13	0.13	0.10	0.42	0.42	0.08	0.23	0.06
Crit Moves:		****		****				****		****		
Green Time:	21.6	21.6	30.1	13.8	13.8	30.4	16.5	44.0	44.0	8.5	36.0	36.0
Volume/Cap:	0.95	0.95	0.83	0.95	0.95	0.43	0.63	0.95	0.95	0.95	0.63	0.18
Uniform Del:	38.6	38.6	32.5	42.7	42.7	27.9	38.9	26.9	26.9	45.5	26.5	21.9
IncremntDel:	22.0	22.0	13.9	29.5	29.5	2.5	5.7	9.5	9.5	43.2	1.5	0.6
InitQueuDel:	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:	60.6	60.6	46.4	72.2	72.2	30.4	44.7	36.3	36.3	88.7	28.0	22.5
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:	60.6	60.6	46.4	72.2	72.2	30.4	44.7	36.3	36.3	88.7	28.0	22.5
LOS by Move:	E	E	D	E	E	C	D	D+	D+	F	C	C+
HCM2kAvgQ:	411	411	398	292	292	155	167	719	719	202	290	64

Note: Queue reported is the distance per lane in feet.

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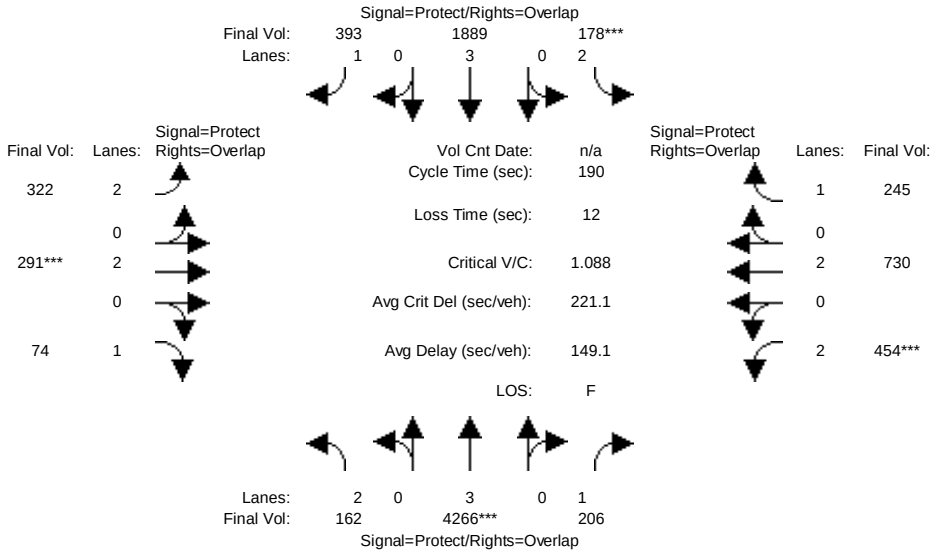
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #50: Lawrence Expressway/Homestead Road



Street Name:	Lawrence Expressway						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	22	110	110	17	102	102	23	43	43	27	43	43
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	162	4887	198	178	2065	380	303	283	74	427	703	245
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	162	4887	198	178	2065	380	303	283	74	427	703	245
Added Vol:	0	16	8	0	106	13	19	8	0	27	27	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	162	4903	206	178	2171	393	322	291	74	454	730	245
User Adj:	1.00	0.87	1.00	1.00	0.87	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:	162	4266	206	178	1889	393	322	291	74	454	730	245
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	162	4266	206	178	1889	393	322	291	74	454	730	245
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	162	4266	206	178	1889	393	322	291	74	454	730	245
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.75	0.12	0.06	0.33	0.22	0.10	0.08	0.04	0.14	0.19	0.14
Crit Moves:		****		****				****		****		
Green Time:	20.5	100	124.5	15.5	95.0	117.1	22.2	39.1	59.6	24.5	41.5	56.9
Volume/Cap:	0.48	1.42	0.18	0.69	0.66	0.36	0.88	0.37	0.13	1.12	0.88	0.47
Uniform Del:	87.7	49.5	14.1	93.5	39.1	19.8	90.8	71.4	51.4	91.0	79.1	59.6
IncremntDel:	4.7	192	0.3	14.5	1.2	1.0	24.1	1.4	0.5	79.9	12.9	3.0
InitQueuDel:	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:	92.4	241	14.4	107.9	40.3	20.8	114.9	72.7	51.9	170.9	91.9	62.6
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:	92.4	241	14.4	107.9	40.3	20.8	114.9	72.7	51.9	170.9	91.9	62.6
LOS by Move:	F	F	B	F	D	C+	F	E	D-	F	F	E
HCM2kAvgQ:	155	3461	132	196	730	320	365	196	87	595	621	336

Note: Queue reported is the distance per lane in feet.

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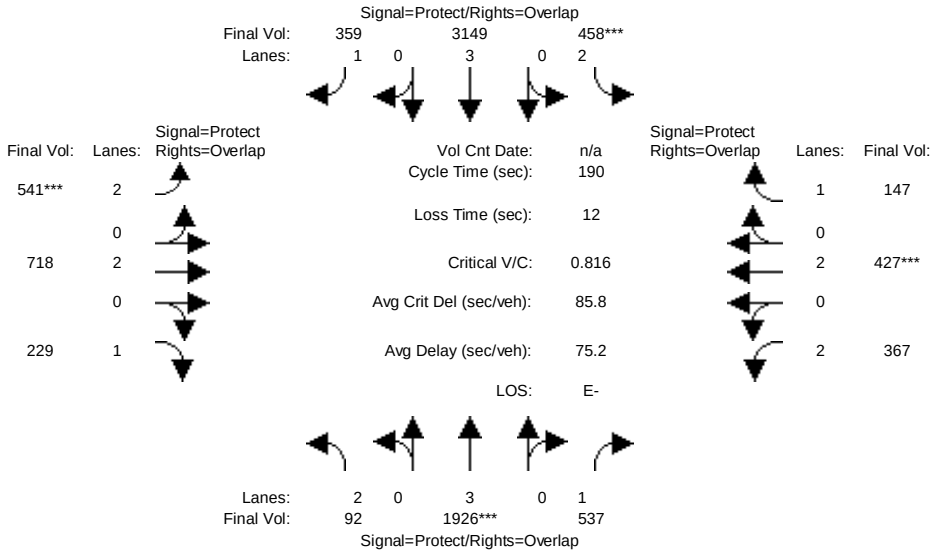
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #50: Lawrence Expressway/Homestead Road



Street Name:	Lawrence Expressway						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	13	95	95	27	101	101	28	38	38	30	38	38
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	92	2380	508	458	3927	352	468	689	229	352	412	147
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	92	2380	508	458	3927	352	468	689	229	352	412	147
Added Vol:	0	58	29	0	59	7	73	29	0	15	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	92	2438	537	458	3986	359	541	718	229	367	427	147
User Adj:	1.00	0.79	1.00	1.00	0.79	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:	92	1926	537	458	3149	359	541	718	229	367	427	147
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	1926	537	458	3149	359	541	718	229	367	427	147
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	92	1926	537	458	3149	359	541	718	229	367	427	147
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.34	0.31	0.15	0.55	0.21	0.17	0.19	0.13	0.12	0.11	0.08
Crit Moves:		****			****			****			****	
Green Time:	12.2	89.4	117.6	25.4	103	130.7	28.2	35.7	48.0	28.2	35.7	61.1
Volume/Cap:	0.45	0.72	0.50	1.09	1.02	0.30	1.16	1.00	0.52	0.78	0.60	0.26
Uniform Del:	91.1	42.8	21.2	87.5	46.5	12.4	86.0	82.0	64.9	82.9	75.0	50.7
IncremntDel:	7.2	1.7	1.6	69.6	22.6	0.6	92.1	34.7	4.3	12.4	3.7	1.1
InitQueuDel:	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:	98.2	44.5	22.8	157.1	69.1	13.0	178.1	117	69.2	95.3	78.7	51.8
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:	98.2	44.5	22.8	157.1	69.1	13.0	178.1	117	69.2	95.3	78.7	51.8
LOS by Move:	F	D	C+	F	E	B	F	F	E	F	E-	D-
HCM2kAvgQ:	94	780	474	573	1799	225	701	674	326	366	308	175

Note: Queue reported is the distance per lane in feet.

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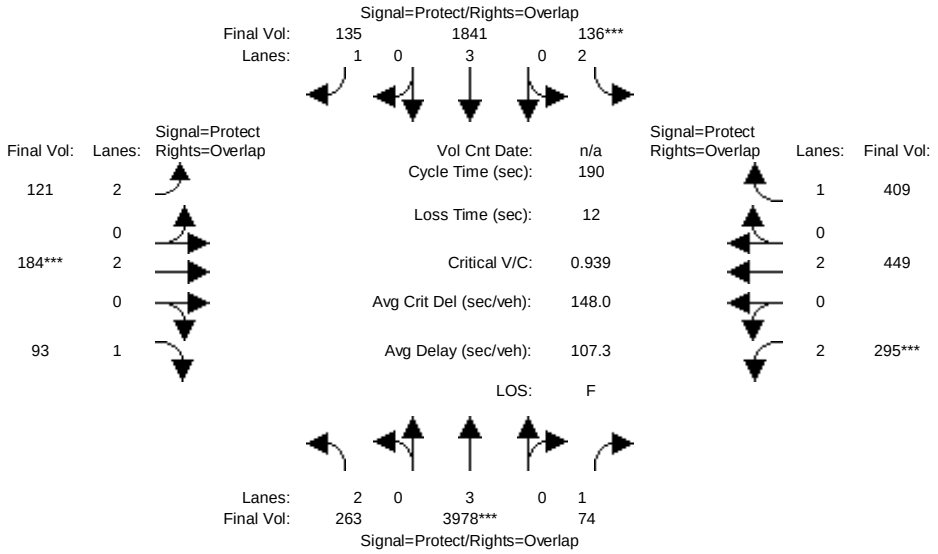
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #51: Lawrence Expressway/Pruneridge Avenue



Street Name:	Lawrence Expressway						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	19	113	113	16	111	111	19	37	37	24	42	42
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	263	4556	74	136	2010	108	113	176	93	295	422	409
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	263	4556	74	136	2010	108	113	176	93	295	422	409
Added Vol:	0	16	0	0	106	27	8	8	0	0	27	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	263	4572	74	136	2116	135	121	184	93	295	449	409
User Adj:	1.00	0.87	1.00	1.00	0.87	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:	263	3978	74	136	1841	135	121	184	93	295	449	409
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	263	3978	74	136	1841	135	121	184	93	295	449	409
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	263	3978	74	136	1841	135	121	184	93	295	449	409
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.70	0.04	0.04	0.32	0.08	0.04	0.05	0.05	0.09	0.12	0.23
Crit Moves:		****		****				****		****		
Green Time:	17.8	107	129.2	15.0	104	121.7	17.8	34.6	52.4	22.5	39.3	54.3
Volume/Cap:	0.89	1.24	0.06	0.55	0.59	0.12	0.41	0.27	0.19	0.79	0.57	0.82
Uniform Del:	91.0	44.5	10.9	90.0	30.8	14.2	86.7	71.3	56.2	87.1	72.4	67.6
IncremntDel:	30.9	112	0.1	8.4	0.8	0.2	4.2	0.9	0.9	15.8	3.0	13.8
InitQueuDel:	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:	121.8	156	11.0	98.4	31.6	14.4	90.9	72.3	57.1	102.8	75.4	81.4
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:	121.8	156	11.0	98.4	31.6	14.4	90.9	72.3	57.1	102.8	75.4	81.4
LOS by Move:	F	F	B+	F	C	B	F	E	E+	F	E-	F
HCM2kAvgQ:	306	2791	40	138	614	84	114	120	115	310	316	671

Note: Queue reported is the distance per lane in feet.

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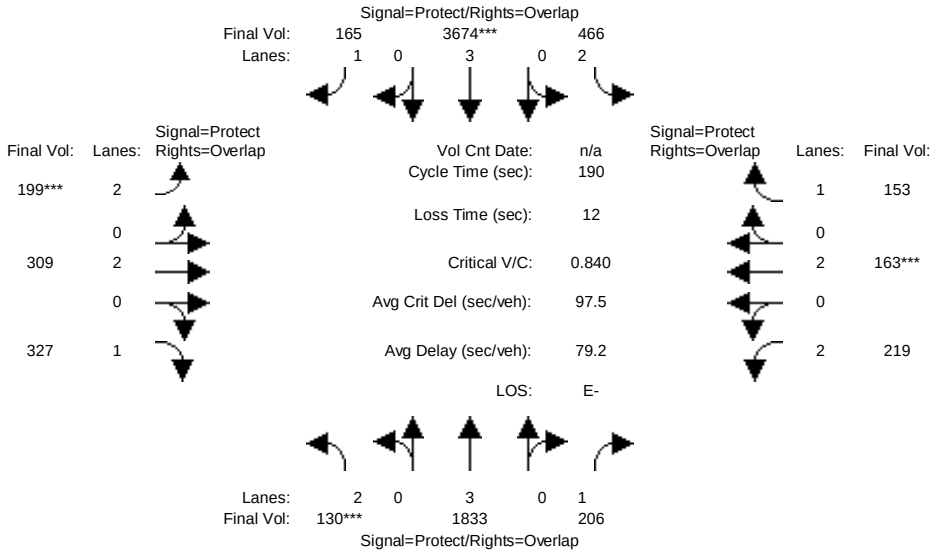
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #51: Lawrence Expressway/Pruneridge Avenue



Street Name:	Lawrence Expressway						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	18	107	107	28	122	122	20	33	33	22	38	38
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	130	2322	206	466	4421	150	170	280	327	219	148	153
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	130	2322	206	466	4421	150	170	280	327	219	148	153
Added Vol:	0	58	0	0	59	15	29	29	0	0	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	130	2380	206	466	4480	165	199	309	327	219	163	153
User Adj:	1.00	0.77	1.00	1.00	0.82	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:	130	1833	206	466	3674	165	199	309	327	219	163	153
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	130	1833	206	466	3674	165	199	309	327	219	163	153
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	130	1833	206	466	3674	165	199	309	327	219	163	153
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.32	0.12	0.15	0.64	0.09	0.06	0.08	0.19	0.07	0.04	0.09
Crit Moves:	****				****		****				****	
Green Time:	16.3	98.2	119.2	28.5	110	128.5	18.1	31.5	47.8	21.0	34.4	62.9
Volume/Cap:	0.48	0.62	0.19	0.99	1.11	0.14	0.66	0.49	0.74	0.63	0.24	0.26
Uniform Del:	91.5	36.2	16.5	89.0	44.0	12.2	91.7	79.6	72.4	89.3	73.6	51.5
IncremntDel:	6.0	1.0	0.4	38.1	54.2	0.2	11.0	2.7	10.8	8.4	0.8	1.1
InitQueuDel:	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:	97.6	37.2	16.9	127.2	98.2	12.4	102.8	82.3	83.2	97.7	74.4	52.6
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:	97.6	37.2	16.9	127.2	98.2	12.4	102.8	82.3	83.2	97.7	74.4	52.6
LOS by Move:	F	D+	B	F	F	B	F	F	F	F	E	D-
HCM2kAvgQ:	131	674	144	551	2337	97	210	228	539	221	109	187

Note: Queue reported is the distance per lane in feet.

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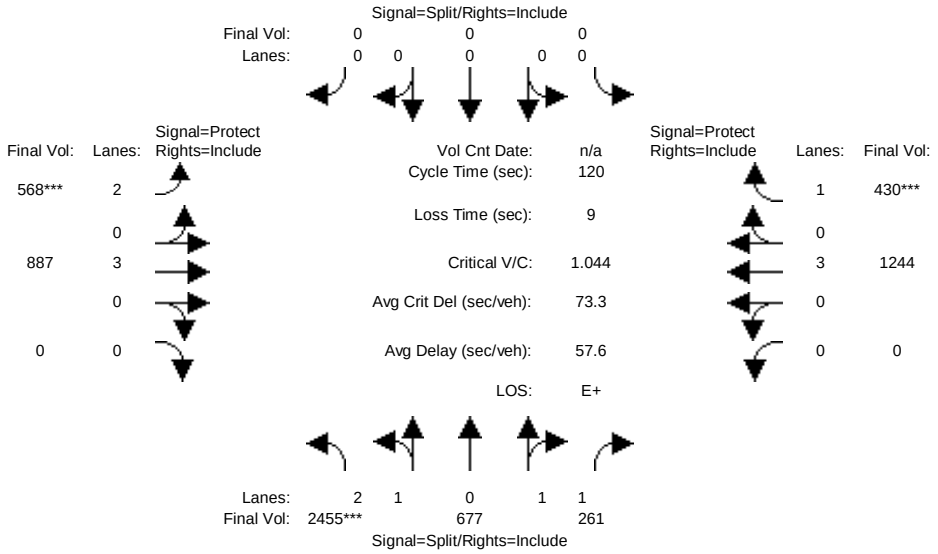
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #52: Stevens Creek Boulevard/Lawrence Expressway Ramps East



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps East					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	0	0	0	23	10	0	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	2255	677	261	0	0	0	552	864	0	0	1164	430
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2255	677	261	0	0	0	552	864	0	0	1164	430
Added Vol:	200	0	0	0	0	0	16	23	0	0	80	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2455	677	261	0	0	0	568	887	0	0	1244	430
User Adj:	1.00	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:	2455	677	261	0	0	0	568	887	0	0	1244	430
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2455	677	261	0	0	0	568	887	0	0	1244	430
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	2455	677	261	0	0	0	568	887	0	0	1244	430
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.80	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	3.00	1.00	1.00	0.00	0.00	0.00	2.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	4551	1900	1750	0	0	0	3150	5700	0	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.54	0.36	0.15	0.00	0.00	0.00	0.18	0.16	0.00	0.00	0.22	0.25
Crit Moves:	****						****					****
Green Time:	60.5	60.5	60.5	0.0	0.0	0.0	23.0	50.5	0.0	0.0	27.5	27.5
Volume/Cap:	1.07	0.71	0.30	0.00	0.00	0.00	0.94	0.37	0.00	0.00	0.95	1.07
Uniform Del:	29.8	22.9	17.4	0.0	0.0	0.0	47.8	23.8	0.0	0.0	45.6	46.2
IncremntDel:	38.8	0.9	0.1	0.0	0.0	0.0	24.6	0.4	0.0	0.0	15.6	65.0
InitQueuDel:	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	1.00	1.00	0.00	0.00	1.00	1.00
Delay/Veh:	68.6	23.8	17.4	0.0	0.0	0.0	72.4	24.2	0.0	0.0	61.2	111.2
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:	68.6	23.8	17.4	0.0	0.0	0.0	72.4	24.2	0.0	0.0	61.2	111.2
LOS by Move:	E	C	B	A	A	A	E	C	A	A	E	F
HCM2kAvgQ:	1262	492	148	0	0	0	387	186	0	0	490	634

Note: Queue reported is the distance per lane in feet.

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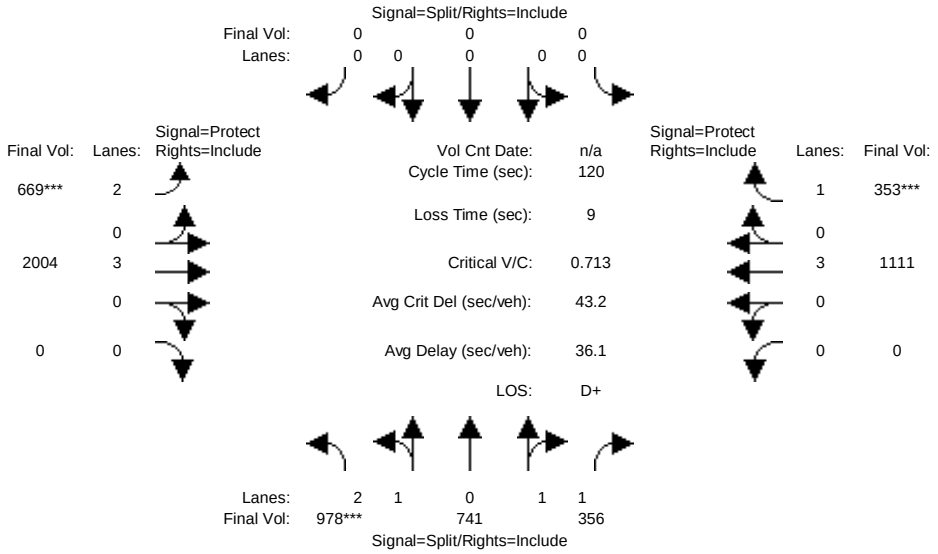
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #52: Stevens Creek Boulevard/Lawrence Expressway Ramps East



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps East					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	50	50	50	0	0	0	40	70	0	0	40	40
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	868	741	356	0	0	0	611	1917	0	0	1067	353
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	868	741	356	0	0	0	611	1917	0	0	1067	353
Added Vol:	110	0	0	0	0	0	58	87	0	0	44	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	978	741	356	0	0	0	669	2004	0	0	1111	353
User Adj:	1.00	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:	978	741	356	0	0	0	669	2004	0	0	1111	353
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	978	741	356	0	0	0	669	2004	0	0	1111	353
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	978	741	356	0	0	0	669	2004	0	0	1111	353
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.84	0.98	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.42	1.58	1.00	0.00	0.00	0.00	2.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	3876	2937	1750	0	0	0	3150	5700	0	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.25	0.25	0.20	0.00	0.00	0.00	0.21	0.35	0.00	0.00	0.19	0.20
Crit Moves:	****						****					****
Green Time:	43.2	43.2	43.2	0.0	0.0	0.0	34.5	69.1	0.0	0.0	34.5	34.5
Volume/Cap:	0.70	0.70	0.57	0.00	0.00	0.00	0.74	0.61	0.00	0.00	0.68	0.70
Uniform Del:	38.1	38.1	35.8	0.0	0.0	0.0	44.8	19.3	0.0	0.0	43.8	44.2
IncremntDel:	1.4	1.4	0.6	0.0	0.0	0.0	5.4	0.9	0.0	0.0	2.3	7.9
InitQueuDel:	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	1.00	1.00	0.00	0.00	1.00	1.00
Delay/Veh:	39.5	39.5	36.4	0.0	0.0	0.0	50.1	20.2	0.0	0.0	46.1	52.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.5	39.5	36.4	0.0	0.0	0.0	50.1	20.2	0.0	0.0	46.1	52.1
LOS by Move:	D	D	D+	A	A	A	D	C+	A	A	D	D-
HCM2kAvgQ:	450	450	331	0	0	0	404	472	0	0	364	383

Note: Queue reported is the distance per lane in feet.

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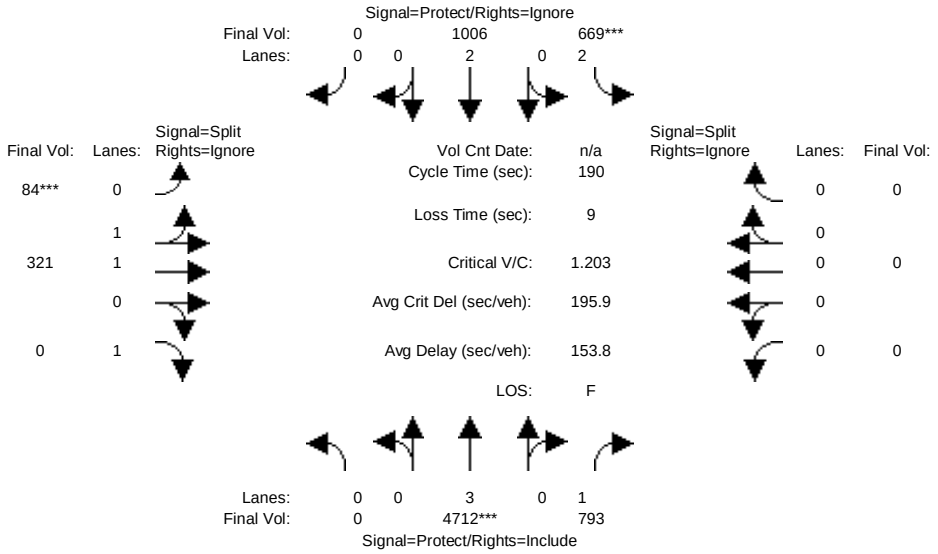
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #53: Lawrence Expressway/I-280 Ramps South



Street Name:	Lawrence Expressway						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	102	120	36	156	0	34	34	34	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	4645	793	669	1006	0	84	282	272	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	4645	793	669	1006	0	84	282	272	0	0	0
Added Vol:	0	67	0	0	0	0	0	39	51	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	4712	793	669	1006	0	84	321	323	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	4712	793	669	1006	0	84	321	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	4712	793	669	1006	0	84	321	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	4712	793	669	1006	0	84	321	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.95	0.98	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	0.43	1.57	1.00	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	767	2932	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.83	0.45	0.21	0.26	0.00	0.11	0.11	0.00	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green Time:	0.0	115	114.6	34.4	149	0.0	32.5	32.5	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	1.37	0.75	1.17	0.34	0.00	0.64	0.64	0.00	0.00	0.00	0.00
Uniform Del:	0.0	39.5	28.7	81.5	6.3	0.0	76.8	76.8	0.0	0.0	0.0	0.0
IncremntDel:	0.0	169	4.9	95.7	0.3	0.0	4.9	4.9	0.0	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	208	33.6	177.2	6.6	0.0	81.7	81.7	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	208	33.6	177.2	6.6	0.0	81.7	81.7	0.0	0.0	0.0	0.0
LOS by Move:	A	F	C-	F	A	A	F	F	A	A	A	A
HCM2kAvgQ:	0	3585	934	852	217	0	308	308	0	0	0	0

Note: Queue reported is the distance per lane in feet.

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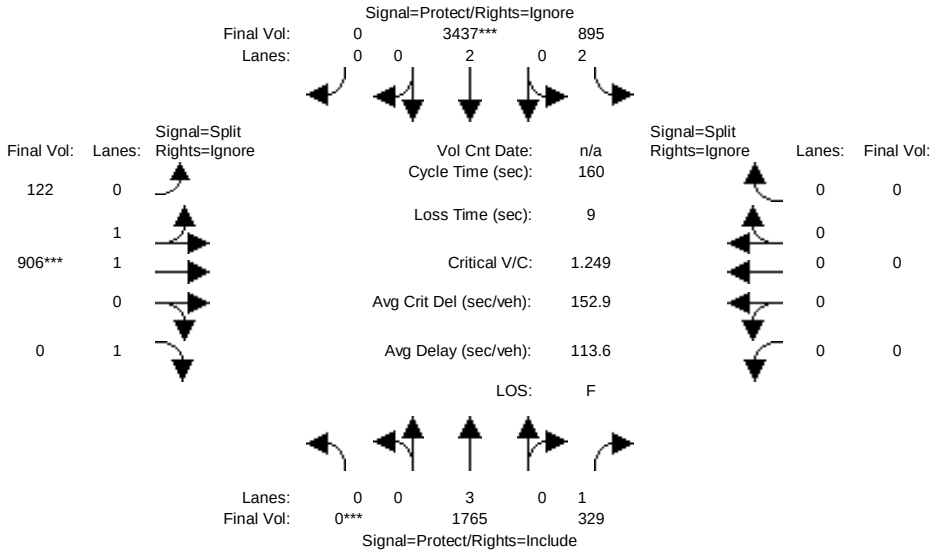
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #53: Lawrence Expressway/I-280 Ramps South



Street Name:	Lawrence Expressway						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	43	43	50	119	0	41	41	41	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1728	329	895	3437	0	122	761	643	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1728	329	895	3437	0	122	761	643	0	0	0
Added Vol:	0	37	0	0	0	0	0	145	189	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1765	329	895	3437	0	122	906	832	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	1765	329	895	3437	0	122	906	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1765	329	895	3437	0	122	906	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	1765	329	895	3437	0	122	906	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.95	0.98	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	0.24	1.76	1.00	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	439	3261	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.31	0.19	0.28	0.90	0.00	0.28	0.28	0.00	0.00	0.00	0.00
Crit Moves:	****				****			****				
Green Time:	0.0	57.6	57.6	55.0	113	0.0	38.8	38.8	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.86	0.52	0.83	1.28	0.00	1.15	1.15	0.00	0.00	0.00	0.00
Uniform Del:	0.0	50.1	42.6	50.8	25.0	0.0	64.0	64.0	0.0	0.0	0.0	0.0
IncremntDel:	0.0	5.0	3.1	7.2	131	0.0	78.6	78.6	0.0	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	55.1	45.7	58.0	156	0.0	142.6	143	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	55.1	45.7	58.0	156	0.0	142.6	143	0.0	0.0	0.0	0.0
LOS by Move:	A	E+	D	E+	F	A	F	F	A	A	A	A
HCM2kAvgQ:	0	752	357	674	3310	0	953	953	0	0	0	0

Note: Queue reported is the distance per lane in feet.

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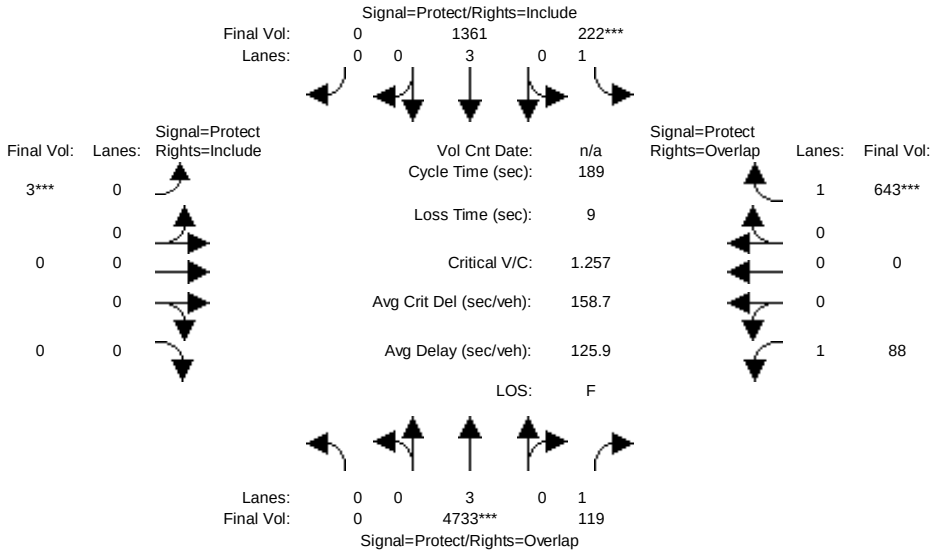
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #54: Lawrence Expressway/Mitty Way



Street Name:	Lawrence Expressway						Mitty Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	129	129	32	161	0	0	0	0	27	0	27
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	4680	119	218	1314	0	3	0	0	88	0	630
Growth Adj:	1.00	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	4680	119	218	1314	0	3	0	0	88	0	630
Added Vol:	0	53	0	4	47	0	0	0	0	0	0	13
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	4733	119	222	1361	0	3	0	0	88	0	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:	0	4733	119	222	1361	0	3	0	0	88	0	643
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	4733	119	222	1361	0	3	0	0	88	0	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:	0	4733	119	222	1361	0	3	0	0	88	0	643
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	3.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5700	0	1750	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.83	0.07	0.13	0.24	0.00	0.00	0.00	0.00	0.05	0.00	0.37
Crit Moves:		****		****			****					****
Green Time:	0.0	124	149.7	30.7	154	0.0	0.2	0.0	0.0	25.9	0.0	56.4
Volume/Cap:	0.00	1.27	0.09	0.78	0.29	0.00	1.51	0.00	0.00	0.37	0.00	1.23
Uniform Del:	0.0	34.0	4.6	79.1	4.3	0.0	98.4	0.0	0.0	77.2	0.0	69.1
IncremntDel:	0.0	123	0.1	18.9	0.2	0.0	906.3	0.0	0.0	4.3	0.0	120.1
InitQueuDel:	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	1.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	157	4.7	98.1	4.5	0.0	1005	0.0	0.0	81.5	0.0	189.2
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	157	4.7	98.1	4.5	0.0	1005	0.0	0.0	81.5	0.0	189.2
LOS by Move:	A	F	A	F	A	A	F	A	A	F	A	F
HCM2kAvgQ:	0	3308	42	384	159	0	22	0	0	133	0	1471

Note: Queue reported is the distance per lane in feet.

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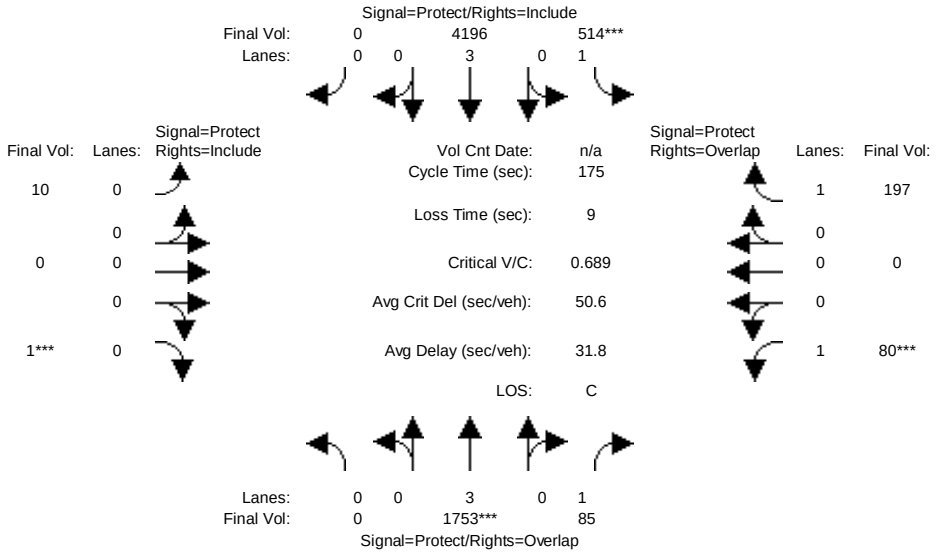
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #54: Lawrence Expressway/Mitty Way



Street Name:	Lawrence Expressway						Mitty Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	82	82	22	131	0	0	0	0	29	0	29
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1724	85	499	4022	0	10	0	1	80	0	190
Growth Adj:	1.00	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	1724	85	499	4022	0	10	0	1	80	0	190
Added Vol:	0	29	0	15	174	0	0	0	0	0	0	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1753	85	514	4196	0	10	0	1	80	0	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:	0	1753	85	514	4196	0	10	0	1	80	0	197
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1753	85	514	4196	0	10	0	1	80	0	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:	0	1753	85	514	4196	0	10	0	1	80	0	197
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	3.00	0.00	0.91	0.00	0.09	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5700	0	1591	0	159	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.31	0.05	0.29	0.74	0.00	0.01	0.00	0.01	0.05	0.00	0.11
Crit Moves:		****		****					****	****		
Green Time:	0.0	82.0	111.0	53.8	136	0.0	30.2	0.0	1.2	29.0	0.0	82.8
Volume/Cap:	0.00	0.66	0.08	0.95	0.95	0.00	0.04	0.00	0.95	0.28	0.00	0.24
Uniform Del:	0.0	35.7	12.3	59.4	16.6	0.0	60.3	0.0	86.9	63.8	0.0	27.3
IncremntDel:	0.0	1.3	0.1	29.0	5.9	0.0	0.2	0.0	249.0	2.3	0.0	0.7
InitQueuDel:	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	1.00	0.00	1.00	1.00	0.00	1.00
Delay/Veh:	0.0	37.0	12.4	88.4	22.5	0.0	60.6	0.0	335.9	66.2	0.0	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:	0.0	37.0	12.4	88.4	22.5	0.0	60.6	0.0	335.9	66.2	0.0	28.0
LOS by Move:	A	D+	B	F	C+	A	E	A	F	E	A	C
HCM2kAvgQ:	0	591	45	836	1673	0	13	0	44	102	0	162

Note: Queue reported is the distance per lane in feet.

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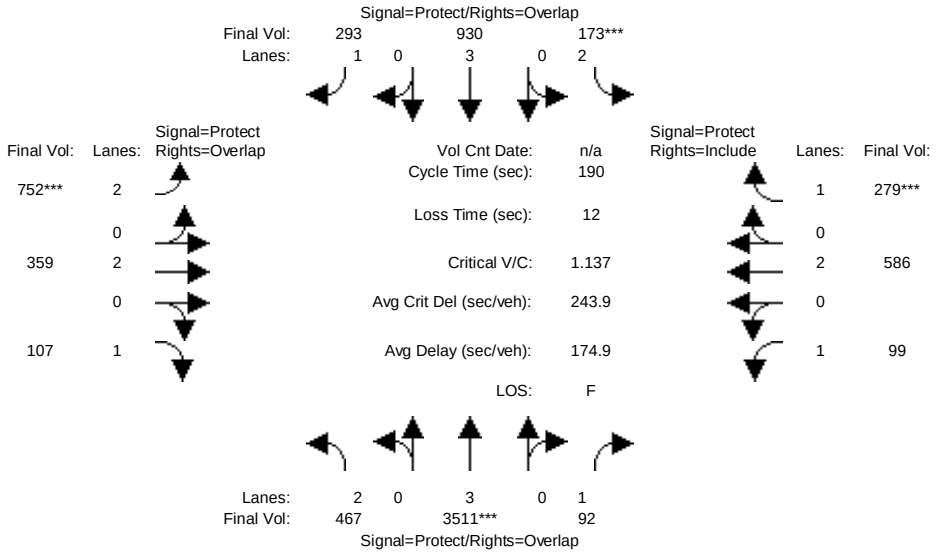
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #55: Lawrence Expressway/Bollinger Road



Street Name:	Lawrence Expressway						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	22	82	82	18	48	48	52	71	71	19	38	38
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	347	3471	92	169	887	293	752	351	103	99	559	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:	347	3471	92	169	887	293	752	351	103	99	559	266
Added Vol:	120	40	0	4	43	0	0	8	4	0	27	13
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	467	3511	92	173	930	293	752	359	107	99	586	279
User Adj:	1.00	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:	467	3511	92	173	930	293	752	359	107	99	586	279
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	467	3511	92	173	930	293	752	359	107	99	586	279
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	467	3511	92	173	930	293	752	359	107	99	586	279
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.15	0.62	0.05	0.05	0.16	0.17	0.24	0.09	0.06	0.06	0.15	0.16
Crit Moves:		****		****			****					****
Green Time:	36.1	77.1	95.0	16.9	57.9	106.8	48.9	66.8	102.9	17.9	35.7	35.7
Volume/Cap:	0.78	1.52	0.11	0.62	0.54	0.30	0.93	0.27	0.11	0.60	0.82	0.85
Uniform Del:	77.8	60.0	26.7	88.7	58.3	23.2	73.2	46.9	22.6	87.9	78.7	79.2
IncremntDel:	9.7	235	0.2	9.8	1.2	0.8	18.2	0.5	0.2	15.2	10.2	22.8
InitQueuDel:	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:	87.4	295	26.9	98.4	59.5	24.0	91.4	47.4	22.8	103.1	88.9	102.0
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:	87.4	295	26.9	98.4	59.5	24.0	91.4	47.4	22.8	103.1	88.9	102.0
LOS by Move:	F	F	C	F	E+	C	F	D	C+	F	F	F
HCM2kAvgQ:	445	2958	77	175	389	245	761	189	83	178	476	501

Note: Queue reported is the distance per lane in feet.

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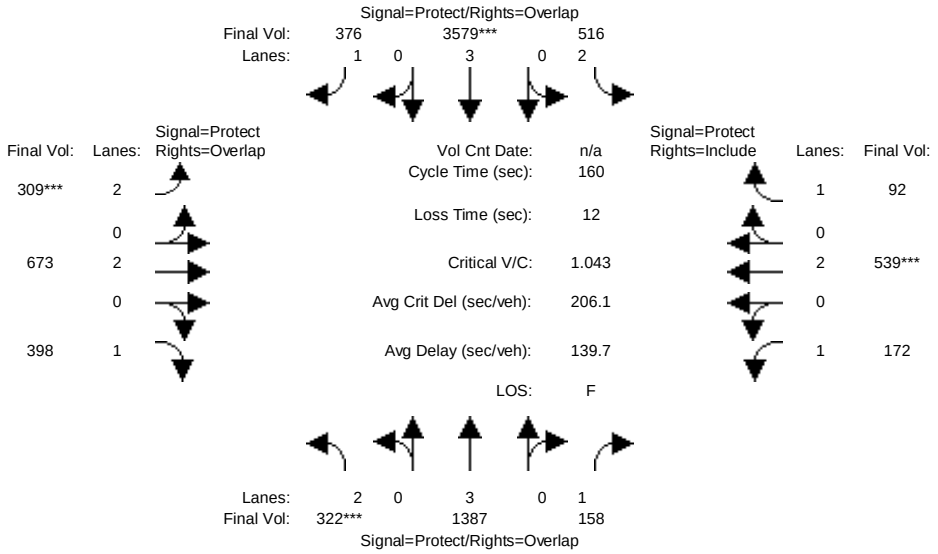
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #55: Lawrence Expressway/Bollinger Road



Street Name:	Lawrence Expressway						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	21	67	67	28	74	74	25	42	42	23	39	39
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	256	1365	158	501	3419	376	309	644	383	172	524	85
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	256	1365	158	501	3419	376	309	644	383	172	524	85
Added Vol:	66	22	0	15	160	0	0	29	15	0	15	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	322	1387	158	516	3579	376	309	673	398	172	539	92
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	322	1387	158	516	3579	376	309	673	398	172	539	92
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	322	1387	158	516	3579	376	309	673	398	172	539	92
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	322	1387	158	516	3579	376	309	673	398	172	539	92
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.24	0.09	0.16	0.63	0.21	0.10	0.18	0.23	0.10	0.14	0.05
Crit Moves:	****				****		****				****	
Green Time:	19.5	62.9	83.9	26.4	69.8	93.0	23.3	38.5	58.0	21.1	36.3	36.3
Volume/Cap:	0.84	0.62	0.17	0.99	1.44	0.37	0.67	0.74	0.63	0.75	0.63	0.23
Uniform Del:	73.8	41.9	21.4	71.7	48.5	19.2	69.6	60.3	45.2	71.9	59.9	54.3
IncremntDel:	19.1	1.3	0.4	37.4	200	1.0	7.8	5.3	4.6	19.6	3.4	1.4
InitQueuDel:	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:	92.9	43.2	21.8	109.1	249	20.2	77.4	65.6	49.9	91.5	63.3	55.6
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:	92.9	43.2	21.8	109.1	249	20.2	77.4	65.6	49.9	91.5	63.3	55.6
LOS by Move:	F	D	C+	F	F	C+	E-	E	D	F	E	E+
HCM2kAvgQ:	304	482	112	523	2641	275	256	431	466	272	329	105

Note: Queue reported is the distance per lane in feet.

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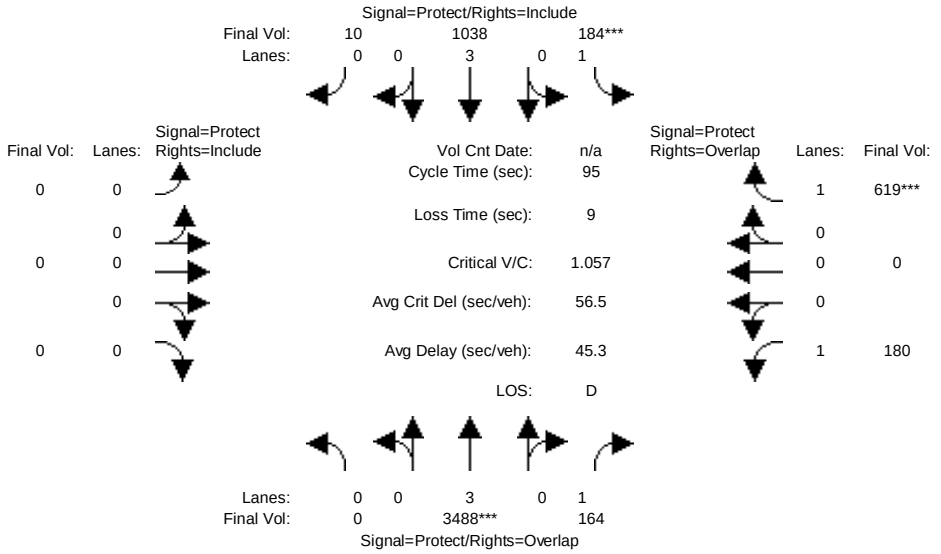
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #56: Lawrence Expressway/Doyle Road



Street Name:	Lawrence Expressway						Doyle Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	61	61	19	79	0	0	0	0	15	0	15
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	3355	164	176	999	10	0	0	0	180	0	592
Growth Adj:	1.00	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	3355	164	176	999	10	0	0	0	180	0	592
Added Vol:	0	133	0	8	39	0	0	0	0	0	0	27
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	3488	164	184	1038	10	0	0	0	180	0	619
User Adj:	1.00	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	3488	164	184	1038	10	0	0	0	180	0	619
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	3488	164	184	1038	10	0	0	0	180	0	619
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	3488	164	184	1038	10	0	0	0	180	0	619
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	2.97	0.03	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5546	53	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.61	0.09	0.11	0.19	0.19	0.00	0.00	0.00	0.10	0.00	0.35
Crit Moves:		****		****								****
Green Time:	0.0	55.7	69.4	17.4	73.1	73.1	0.0	0.0	0.0	13.7	0.0	31.1
Volume/Cap:	0.00	1.04	0.13	0.58	0.24	0.24	0.00	0.00	0.00	0.71	0.00	1.08
Uniform Del:	0.0	21.5	4.2	38.8	3.4	3.4	0.0	0.0	0.0	42.4	0.0	35.0
IncremntDel:	0.0	28.4	0.2	7.4	0.1	0.1	0.0	0.0	0.0	15.8	0.0	61.7
InitQueuDel:	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	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	49.9	4.4	46.2	3.5	3.5	0.0	0.0	0.0	58.2	0.0	96.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	49.9	4.4	46.2	3.5	3.5	0.0	0.0	0.0	58.2	0.0	96.7
LOS by Move:	A	D	A	D	A	A	A	A	A	E+	A	F
HCM2kAvgQ:	0	1226	42	163	81	81	0	0	0	186	0	807

Note: Queue reported is the distance per lane in feet.

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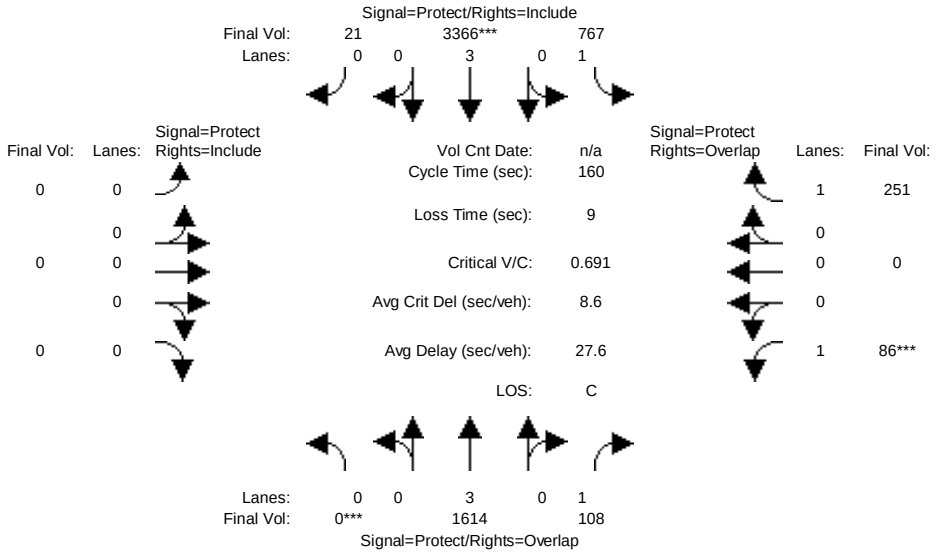
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #56: Lawrence Expressway/Doyle Road



Street Name:	Lawrence Expressway						Doyle Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	31	31	78	141	0	0	0	0	19	0	19
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1540	108	738	3221	21	0	0	0	86	0	236
Growth Adj:	1.00	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	1540	108	738	3221	21	0	0	0	86	0	236
Added Vol:	0	74	0	29	145	0	0	0	0	0	0	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1614	108	767	3366	21	0	0	0	86	0	251
User Adj:	1.00	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	1614	108	767	3366	21	0	0	0	86	0	251
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1614	108	767	3366	21	0	0	0	86	0	251
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1614	108	767	3366	21	0	0	0	86	0	251
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	2.98	0.02	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5565	35	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.28	0.06	0.44	0.60	0.60	0.00	0.00	0.00	0.05	0.00	0.14
Crit Moves:	****				****					****		
Green Time:	0.0	50.8	68.7	82.7	133	133.5	0.0	0.0	0.0	18.0	0.0	100.7
Volume/Cap:	0.00	0.89	0.14	0.85	0.72	0.72	0.00	0.00	0.00	0.44	0.00	0.23
Uniform Del:	0.0	55.0	29.3	35.1	5.9	5.9	0.0	0.0	0.0	70.0	0.0	13.5
IncremntDel:	0.0	7.2	0.4	9.7	1.0	1.0	0.0	0.0	0.0	6.9	0.0	0.5
InitQueuDel:	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	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	62.2	29.7	44.8	6.9	6.9	0.0	0.0	0.0	76.9	0.0	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	62.2	29.7	44.8	6.9	6.9	0.0	0.0	0.0	76.9	0.0	14.0
LOS by Move:	A	E	C	D	A	A	A	A	A	E-	A	B
HCM2kAvgQ:	0	729	88	952	628	628	0	0	0	121	0	146

Note: Queue reported is the distance per lane in feet.

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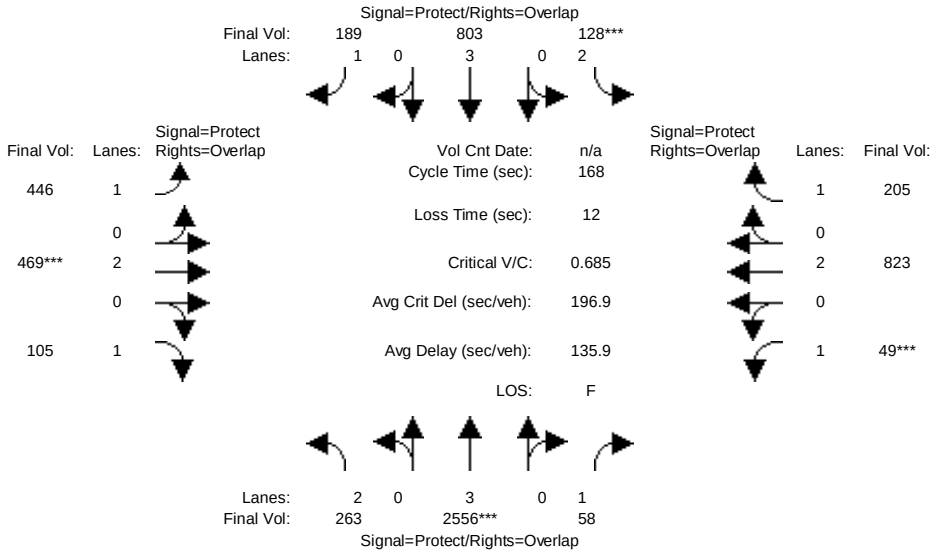
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #57: Lawrence Expressway/Prospect Road



Street Name:	Lawrence Expressway						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	22	60	60	21	56	56	48	75	75	16	43	43
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	263	2423	58	128	764	189	446	469	105	49	823	205
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	263	2423	58	128	764	189	446	469	105	49	823	205
Added Vol:	0	133	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:	263	2556	58	128	803	189	446	469	105	49	823	205
User Adj:	1.00	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:	263	2556	58	128	803	189	446	469	105	49	823	205
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	263	2556	58	128	803	189	446	469	105	49	823	205
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	263	2556	58	128	803	189	446	469	105	49	823	205
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.45	0.03	0.04	0.14	0.11	0.25	0.12	0.06	0.03	0.22	0.12
Crit Moves:		****		****				****		****		
Green Time:	20.9	54.8	69.4	19.2	53.1	96.9	43.8	68.5	89.3	14.6	39.3	58.4
Volume/Cap:	0.67	1.38	0.08	0.36	0.45	0.19	0.98	0.30	0.11	0.32	0.93	0.34
Uniform Del:	77.0	62.0	32.8	75.3	50.1	18.5	67.5	36.8	21.5	78.9	69.0	44.3
IncremntDel:	8.9	172	0.2	2.7	0.8	0.4	36.8	0.5	0.2	5.5	16.9	1.5
InitQueuDel:	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:	85.9	234	33.0	78.0	50.9	18.9	104.2	37.3	21.7	84.4	85.9	45.8
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:	85.9	234	33.0	78.0	50.9	18.9	104.2	37.3	21.7	84.4	85.9	45.8
LOS by Move:	F	F	C-	E-	D	B-	F	D+	C+	F	F	D
HCM2kAvgQ:	237	1897	51	105	292	130	791	213	76	75	650	223

Note: Queue reported is the distance per lane in feet.

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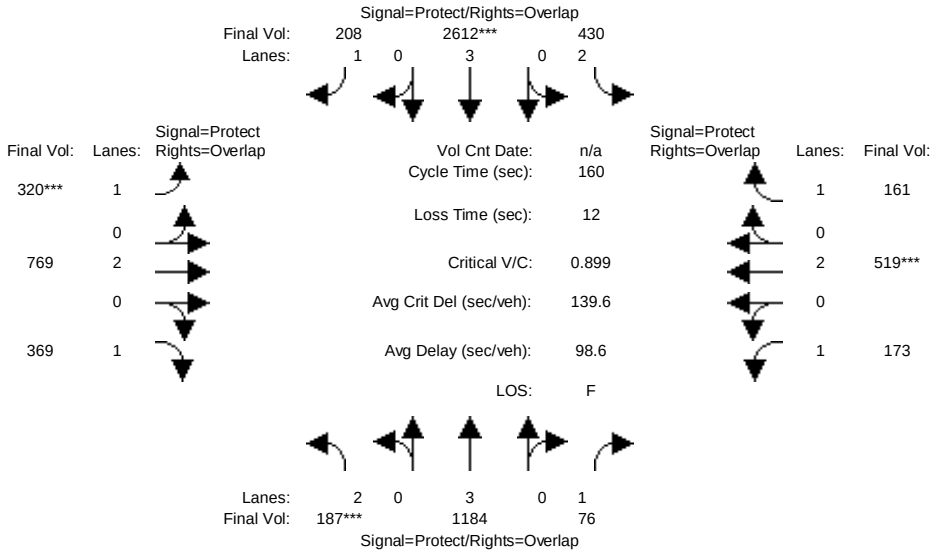
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #57: Lawrence Expressway/Prospect Road



Street Name:	Lawrence Expressway						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	20	49	49	34	62	62	38	52	52	26	39	39
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	187	1110	76	430	2467	208	320	769	369	173	519	161
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	187	1110	76	430	2467	208	320	769	369	173	519	161
Added Vol:	0	74	0	0	145	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	187	1184	76	430	2612	208	320	769	369	173	519	161
User Adj:	1.00	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:	187	1184	76	430	2612	208	320	769	369	173	519	161
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	187	1184	76	430	2612	208	320	769	369	173	519	161
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	187	1184	76	430	2612	208	320	769	369	173	519	161
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.21	0.04	0.14	0.46	0.12	0.18	0.20	0.21	0.10	0.14	0.09
Crit Moves:	****				****		****				****	
Green Time:	18.5	45.9	69.6	31.8	59.2	94.3	35.1	47.5	66.0	23.7	36.1	67.9
Volume/Cap:	0.51	0.72	0.10	0.69	1.24	0.20	0.83	0.68	0.51	0.67	0.61	0.22
Uniform Del:	71.9	55.6	28.9	64.3	54.5	16.5	64.5	53.6	37.9	69.6	60.1	31.6
IncremntDel:	5.1	2.8	0.3	6.0	112	0.4	18.7	3.3	2.6	12.8	3.2	0.7
InitQueuDel:	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:	77.0	58.4	29.1	70.3	166	17.0	83.1	57.0	40.4	82.4	63.3	32.2
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:	77.0	58.4	29.1	70.3	166	17.0	83.1	57.0	40.4	82.4	63.3	32.2
LOS by Move:	E-	E+	C	E	F	B	F	E+	D	F	E	C-
HCM2kAvgQ:	152	485	61	337	1678	133	487	457	384	257	316	140

Note: Queue reported is the distance per lane in feet.

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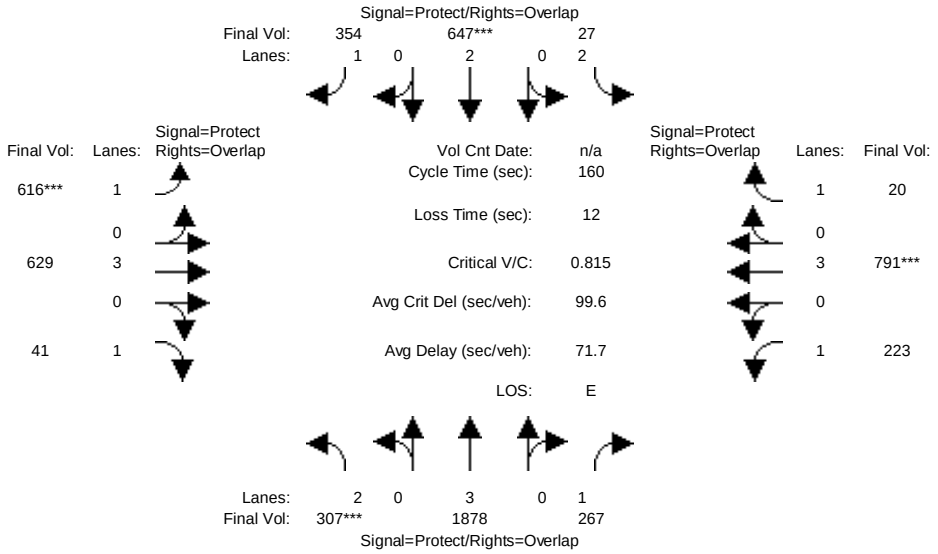
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #58: Lawrence Expressway/Saratoga Avenue



Street Name:	Lawrence Expressway						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	14	61	61	9	55	55	51	61	61	29	39	39
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	307	1865	267	27	643	319	496	629	41	223	791	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	307	1865	267	27	643	319	496	629	41	223	791	20
Added Vol:	0	13	0	0	4	35	120	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	307	1878	267	27	647	354	616	629	41	223	791	20
User Adj:	1.00	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:	307	1878	267	27	647	354	616	629	41	223	791	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	307	1878	267	27	647	354	616	629	41	223	791	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	307	1878	267	27	647	354	616	629	41	223	791	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	5700	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.33	0.15	0.01	0.17	0.20	0.35	0.11	0.02	0.13	0.14	0.01
Crit Moves:	****				****		****				****	
Green Time:	13.3	56.2	83.4	8.3	51.2	99.2	48.1	57.2	70.5	27.2	36.3	44.6
Volume/Cap:	1.17	0.94	0.29	0.17	0.53	0.33	1.17	0.31	0.05	0.75	0.61	0.04
Uniform Del:	78.8	54.0	23.3	78.0	48.0	15.5	60.2	39.9	27.6	67.9	59.7	45.3
IncremntDel:	110.0	10.0	0.8	2.2	1.7	0.8	95.9	0.4	0.1	15.9	2.2	0.2
InitQueuDel:	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:	188.8	64.0	24.1	80.2	49.6	16.3	156.1	40.3	27.7	83.8	61.9	45.4
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:	188.8	64.0	24.1	80.2	49.6	16.3	156.1	40.3	27.7	83.8	61.9	45.4
LOS by Move:	F	E	C	F	D	B	F	D	C	F	E	D
HCM2kAvgQ:	391	889	206	23	344	231	1227	192	32	336	320	20

Note: Queue reported is the distance per lane in feet.

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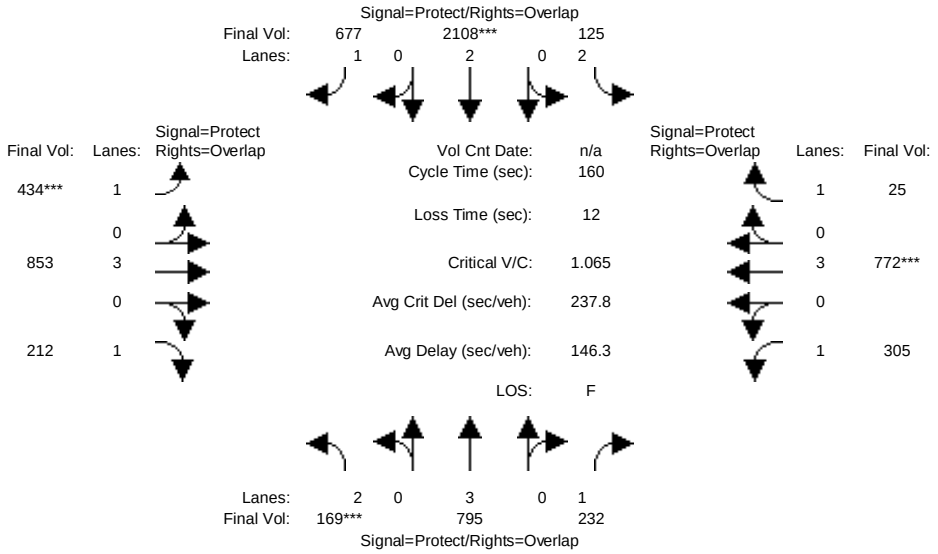
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #58: Lawrence Expressway/Saratoga Avenue



Street Name:	Lawrence Expressway						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	16	56	56	20	60	60	41	46	46	38	46	46
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	169	788	232	125	2093	546	368	853	212	305	772	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	169	788	232	125	2093	546	368	853	212	305	772	25
Added Vol:	0	7	0	0	15	131	66	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	169	795	232	125	2108	677	434	853	212	305	772	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:	169	795	232	125	2108	677	434	853	212	305	772	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	795	232	125	2108	677	434	853	212	305	772	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:	169	795	232	125	2108	677	434	853	212	305	772	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	5700	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.14	0.13	0.04	0.55	0.39	0.25	0.15	0.12	0.17	0.14	0.01
Crit Moves:	****				****		****				****	
Green Time:	14.6	51.2	87.2	18.3	54.9	92.3	37.5	43.6	58.2	36.0	42.1	60.3
Volume/Cap:	0.59	0.44	0.24	0.35	1.62	0.67	1.06	0.55	0.33	0.77	0.52	0.04
Uniform Del:	76.3	47.0	20.9	71.5	57.5	25.5	67.0	54.5	40.3	63.7	55.0	34.4
IncremntDel:	8.5	0.8	0.6	2.6	282	3.5	60.8	1.4	1.4	13.9	1.3	0.1
InitQueuDel:	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:	84.8	47.8	21.5	74.1	339	29.1	127.8	55.9	41.7	77.5	56.3	34.5
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:	84.8	47.8	21.5	74.1	339	29.1	127.8	55.9	41.7	77.5	56.3	34.5
LOS by Move:	F	D	C+	E	F	C	F	E+	D	E-	E+	C-
HCM2kAvgQ:	150	273	169	97	2601	665	809	325	215	448	292	22

Note: Queue reported is the distance per lane in feet.

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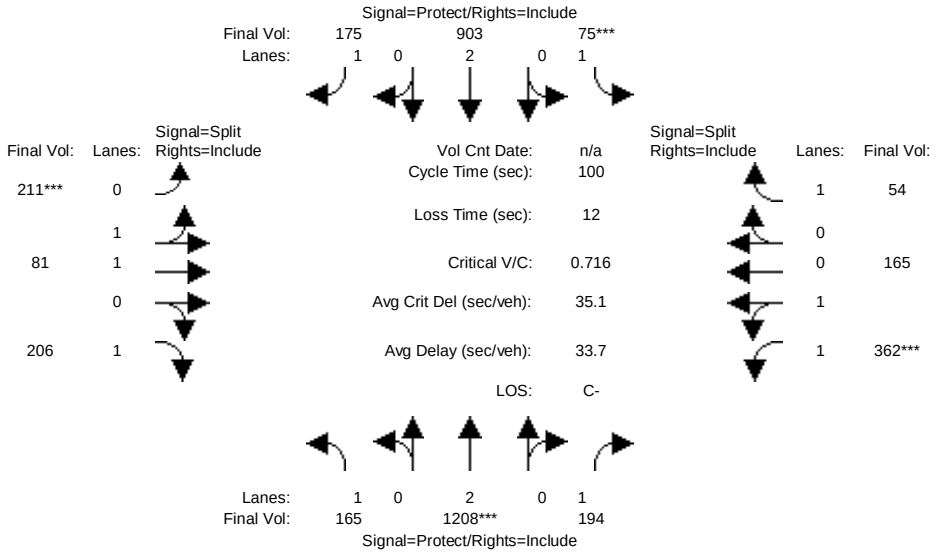
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #59: Saratoga Avenue/Cox Avenue



Street Name:	Cox Avenue						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	165	1088	194	75	868	175	211	81	206	362	165	54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	165	1088	194	75	868	175	211	81	206	362	165	54
Added Vol:	0	120	0	0	35	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	165	1208	194	75	903	175	211	81	206	362	165	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:	165	1208	194	75	903	175	211	81	206	362	165	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	165	1208	194	75	903	175	211	81	206	362	165	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:	165	1208	194	75	903	175	211	81	206	362	165	54
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.38	0.62	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	1900	1750	2438	1111	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.32	0.11	0.04	0.24	0.10	0.12	0.04	0.12	0.15	0.15	0.03
Crit Moves:		****		****			****			****		
Green Time:	14.5	43.9	43.9	7.0	36.4	36.4	16.6	16.6	16.6	20.5	20.5	20.5
Volume/Cap:	0.65	0.72	0.25	0.61	0.65	0.27	0.72	0.26	0.71	0.72	0.72	0.15
Uniform Del:	40.4	23.1	17.7	45.2	26.5	22.5	39.5	36.3	39.4	37.1	37.1	32.6
IncremntDel:	12.4	2.8	0.8	20.7	2.4	1.1	10.8	0.5	13.6	6.2	6.2	0.9
InitQueuDel:	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	25.9	18.5	65.9	28.9	23.5	50.3	36.8	52.9	43.3	43.3	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:	52.8	25.9	18.5	65.9	28.9	23.5	50.3	36.8	52.9	43.3	43.3	33.5
LOS by Move:	D-	C	B-	E	C	C	D	D+	D-	D	D	C-
HCM2kAvgQ:	159	406	101	88	306	103	206	57	198	239	239	38

Note: Queue reported is the distance per lane in feet.

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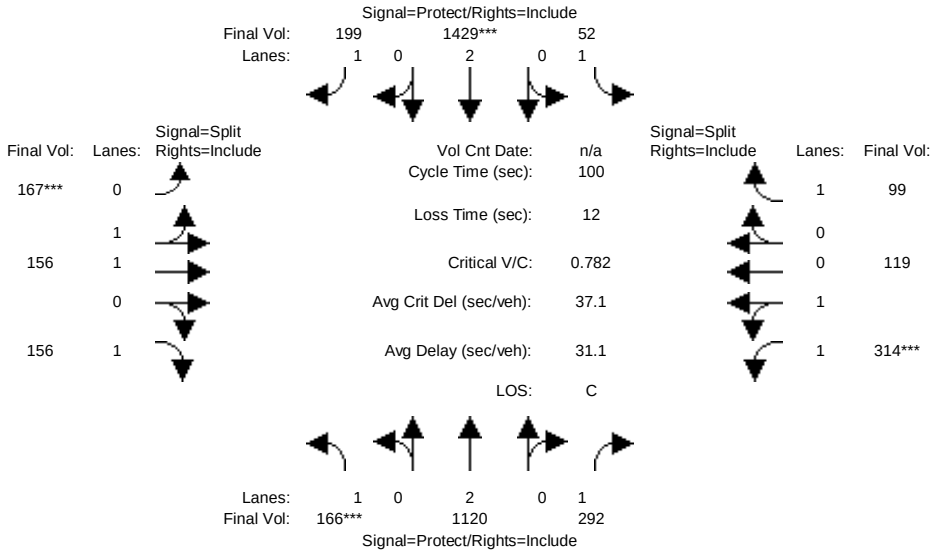
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #59: Saratoga Avenue/Cox Avenue



Street Name:	Cox Avenue						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	166	1054	292	52	1298	199	167	156	156	314	119	99
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	166	1054	292	52	1298	199	167	156	156	314	119	99
Added Vol:	0	66	0	0	131	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	166	1120	292	52	1429	199	167	156	156	314	119	99
User Adj:	1.00	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:	166	1120	292	52	1429	199	167	156	156	314	119	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	166	1120	292	52	1429	199	167	156	156	314	119	99
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	166	1120	292	52	1429	199	167	156	156	314	119	99
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.46	0.54	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	1900	1750	2574	976	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.29	0.17	0.03	0.38	0.11	0.10	0.08	0.09	0.12	0.12	0.06
Crit Moves:	****				****		****			****		
Green Time:	12.1	48.7	48.7	11.6	48.1	48.1	12.2	12.2	12.2	15.6	15.6	15.6
Volume/Cap:	0.78	0.61	0.34	0.26	0.78	0.24	0.78	0.67	0.73	0.78	0.78	0.36
Uniform Del:	42.7	18.7	15.8	40.3	21.6	15.2	42.6	42.0	42.3	40.6	40.6	37.8
IncremntDel:	24.4	1.5	1.1	3.1	3.4	0.7	13.7	7.4	19.7	10.5	10.5	3.7
InitQueuDel:	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:	67.0	20.2	16.9	43.4	25.0	15.9	56.3	49.3	62.0	51.1	51.1	41.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	67.0	20.2	16.9	43.4	25.0	15.9	56.3	49.3	62.0	51.1	51.1	41.5
LOS by Move:	E	C+	B	D	C	B	E+	D	E	D-	D-	D
HCM2kAvgQ:	185	320	149	44	492	96	186	147	167	222	222	81

Note: Queue reported is the distance per lane in feet.

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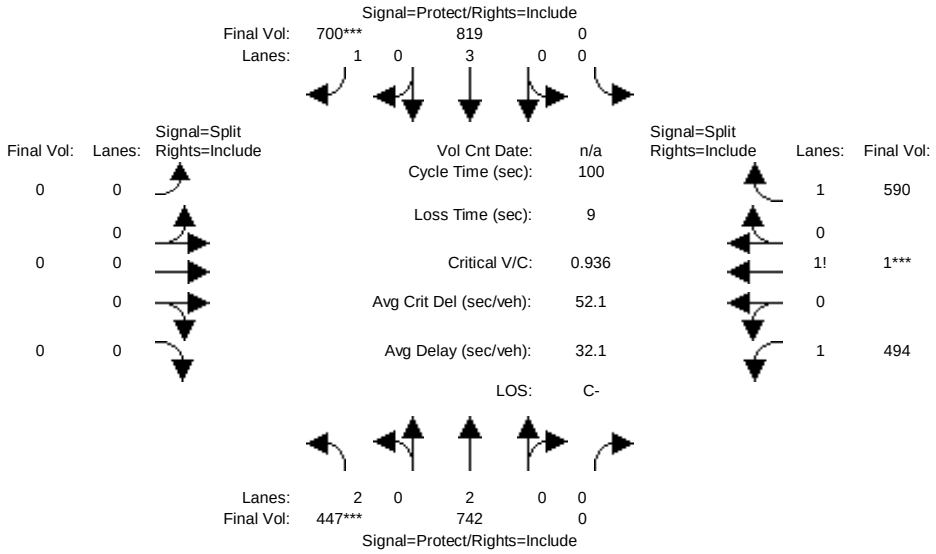
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #60: Saratoga Avenue/SR 85 Ramps North



Street Name:	Saratoga Avenue						SR 85 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	447	729	0	0	784	700	0	0	0	494	1	483
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	447	729	0	0	784	700	0	0	0	494	1	483
Added Vol:	0	13	0	0	35	0	0	0	0	0	0	107
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	447	742	0	0	819	700	0	0	0	494	1	590
User Adj:	1.00	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:	447	742	0	0	819	700	0	0	0	494	1	590
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	447	742	0	0	819	700	0	0	0	494	1	590
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	447	742	0	0	819	700	0	0	0	494	1	590
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	2.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.45	0.01	1.54
Final Sat.:	3150	3800	0	0	5700	1750	0	0	0	2546	3	2701
Capacity Analysis Module:												
Vol/Sat:	0.14	0.20	0.00	0.00	0.14	0.40	0.00	0.00	0.00	0.19	0.31	0.22
Crit Moves:	****					****					****	
Green Time:	15.2	57.9	0.0	0.0	42.7	42.7	0.0	0.0	0.0	33.1	33.1	33.1
Volume/Cap:	0.94	0.34	0.00	0.00	0.34	0.94	0.00	0.00	0.00	0.59	0.94	0.66
Uniform Del:	41.9	11.0	0.0	0.0	19.2	27.3	0.0	0.0	0.0	27.7	32.4	28.6
IncremntDel:	28.1	0.4	0.0	0.0	0.4	20.6	0.0	0.0	0.0	1.4	15.0	2.1
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	70.0	11.4	0.0	0.0	19.5	48.0	0.0	0.0	0.0	29.1	47.4	30.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	70.0	11.4	0.0	0.0	19.5	48.0	0.0	0.0	0.0	29.1	47.4	30.7
LOS by Move:	E	B+	A	A	B-	D	A	A	A	C	D	C
HCM2kAvgQ:	261	150	0	0	139	680	0	0	0	246	558	292

Note: Queue reported is the distance per lane in feet.

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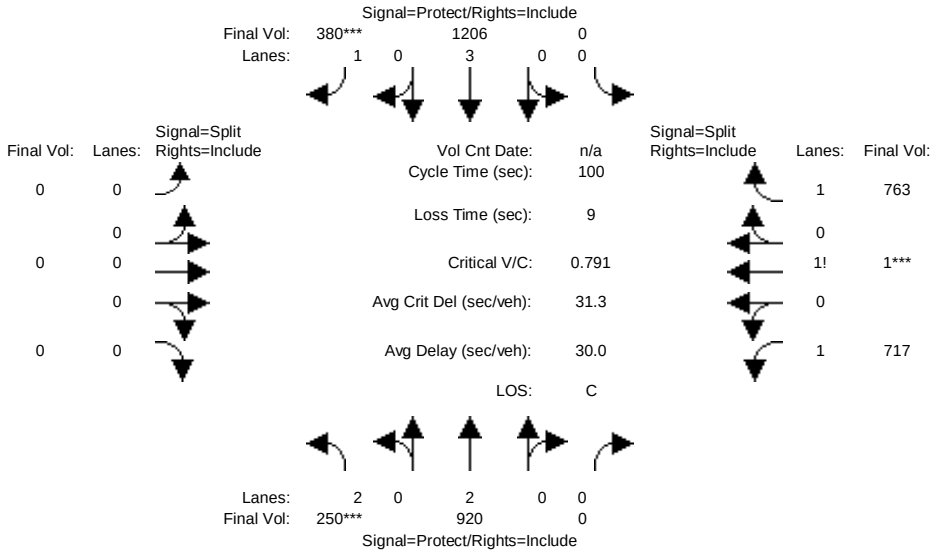
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #60: Saratoga Avenue/SR 85 Ramps North



Street Name:	Saratoga Avenue						SR 85 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	250	913	0	0	1075	380	0	0	0	717	1	704
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	250	913	0	0	1075	380	0	0	0	717	1	704
Added Vol:	0	7	0	0	131	0	0	0	0	0	0	59
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	250	920	0	0	1206	380	0	0	0	717	1	763
User Adj:	1.00	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:	250	920	0	0	1206	380	0	0	0	717	1	763
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	250	920	0	0	1206	380	0	0	0	717	1	763
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	250	920	0	0	1206	380	0	0	0	717	1	763
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	2.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.48	0.01	1.51
Final Sat.:	3150	3800	0	0	5700	1750	0	0	0	2597	2	2651
Capacity Analysis Module:												
Vol/Sat:	0.08	0.24	0.00	0.00	0.21	0.22	0.00	0.00	0.00	0.28	0.42	0.29
Crit Moves:	****					****					****	
Green Time:	10.0	37.5	0.0	0.0	27.4	27.4	0.0	0.0	0.0	53.5	53.5	53.5
Volume/Cap:	0.79	0.65	0.00	0.00	0.77	0.79	0.00	0.00	0.00	0.52	0.79	0.54
Uniform Del:	44.0	25.8	0.0	0.0	33.4	33.6	0.0	0.0	0.0	14.9	18.7	15.2
IncremntDel:	18.1	2.3	0.0	0.0	3.7	12.5	0.0	0.0	0.0	0.7	3.5	0.8
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	62.1	28.1	0.0	0.0	37.1	46.1	0.0	0.0	0.0	15.6	22.2	15.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	62.1	28.1	0.0	0.0	37.1	46.1	0.0	0.0	0.0	15.6	22.2	15.9
LOS by Move:	E	C	A	A	D+	D	A	A	A	B	C+	B
HCM2kAvgQ:	129	302	0	0	328	343	0	0	0	260	534	276

Note: Queue reported is the distance per lane in feet.

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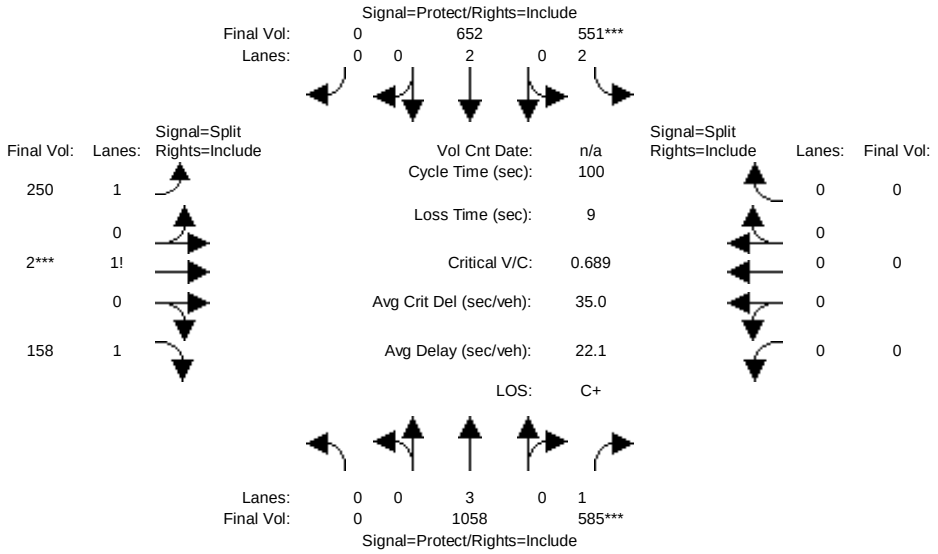
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #61: Saratoga Avenue/SR 85 Ramps South



Street Name:	Saratoga Avenue						SR 85 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1045	585	520	648	0	250	2	158	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1045	585	520	648	0	250	2	158	0	0	0
Added Vol:	0	13	0	31	4	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1058	585	551	652	0	250	2	158	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	1058	585	551	652	0	250	2	158	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1058	585	551	652	0	250	2	158	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	1058	585	551	652	0	250	2	158	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	1.61	0.01	1.38	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	2812	17	2421	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.19	0.33	0.17	0.17	0.00	0.09	0.12	0.07	0.00	0.00	0.00
Crit Moves:			****	****				****				
Green Time:	0.0	48.5	48.5	25.4	73.9	0.0	17.1	17.1	17.1	0.0	0.0	0.0
Volume/Cap:	0.00	0.38	0.69	0.69	0.23	0.00	0.52	0.69	0.38	0.00	0.00	0.00
Uniform Del:	0.0	16.3	19.9	33.7	4.1	0.0	37.7	39.0	36.8	0.0	0.0	0.0
IncremntDel:	0.0	0.4	4.5	4.8	0.2	0.0	2.5	6.4	1.0	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	16.7	24.4	38.6	4.3	0.0	40.2	45.4	37.8	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:	0.0	16.7	24.4	38.6	4.3	0.0	40.2	45.4	37.8	0.0	0.0	0.0
LOS by Move:	A	B	C	D+	A	A	D	D	D+	A	A	A
HCM2kAvgQ:	0	170	393	245	82	0	133	194	91	0	0	0

Note: Queue reported is the distance per lane in feet.

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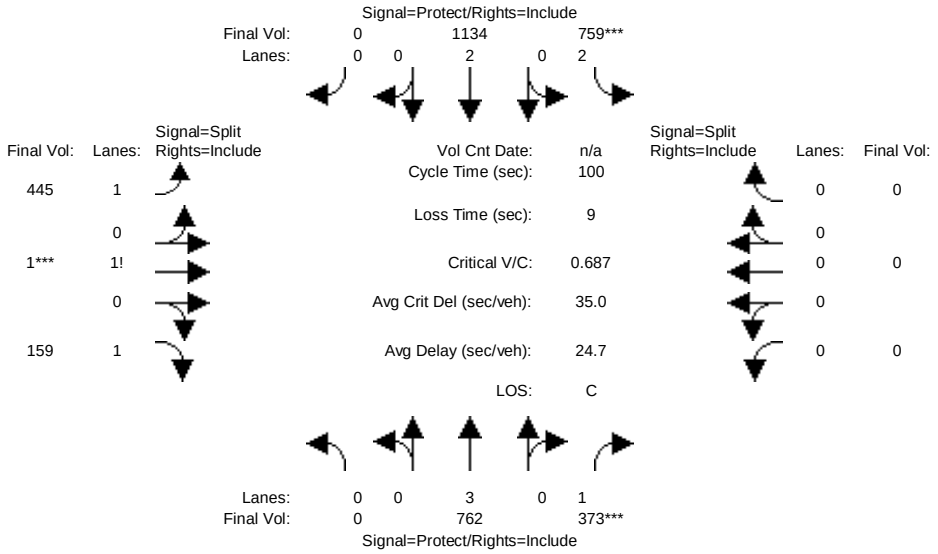
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #61: Saratoga Avenue/SR 85 Ramps South



Street Name:	Saratoga Avenue						SR 85 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	755	373	643	1119	0	445	1	159	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	755	373	643	1119	0	445	1	159	0	0	0
Added Vol:	0	7	0	116	15	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	762	373	759	1134	0	445	1	159	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	762	373	759	1134	0	445	1	159	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	762	373	759	1134	0	445	1	159	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	762	373	759	1134	0	445	1	159	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.93	0.95	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	1.73	0.01	1.26	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	3074	6	2214	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.13	0.21	0.24	0.30	0.00	0.14	0.17	0.07	0.00	0.00	0.00
Crit Moves:			****	****				****				
Green Time:	0.0	31.0	31.0	35.1	66.1	0.0	24.9	24.9	24.9	0.0	0.0	0.0
Volume/Cap:	0.00	0.43	0.69	0.69	0.45	0.00	0.58	0.69	0.29	0.00	0.00	0.00
Uniform Del:	0.0	27.5	30.2	27.8	8.2	0.0	32.9	34.0	30.4	0.0	0.0	0.0
IncremntDel:	0.0	0.8	6.9	3.5	0.6	0.0	2.4	4.4	0.3	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	28.2	37.2	31.3	8.8	0.0	35.3	38.4	30.7	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	28.2	37.2	31.3	8.8	0.0	35.3	38.4	30.7	0.0	0.0	0.0
LOS by Move:	A	C	D+	C	A	A	D+	D+	C	A	A	A
HCM2kAvgQ:	0	159	297	299	207	0	201	254	87	0	0	0

Note: Queue reported is the distance per lane in feet.

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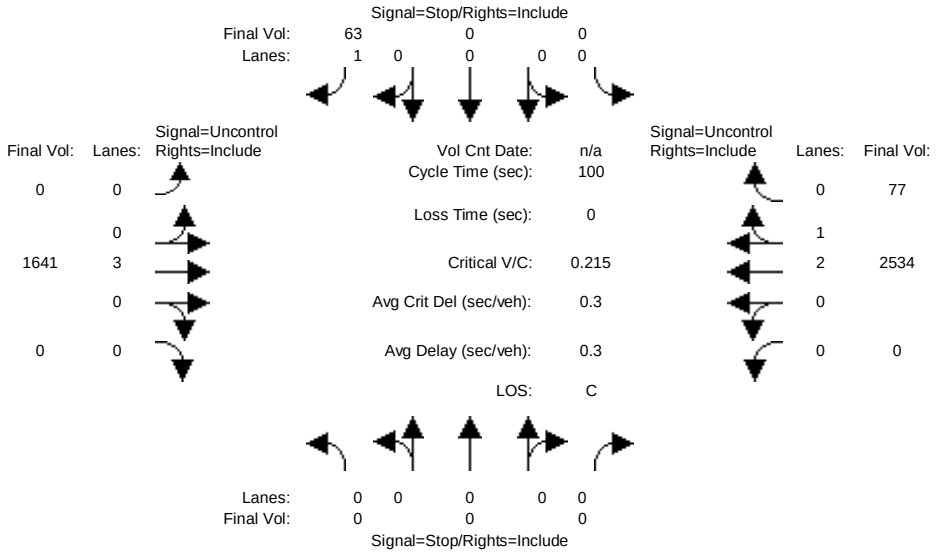
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #62: Stevens Creek Boulevard/Vallco Driveway 5



Street Name:	Vallco Driveway 5						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	0	0	0	0	0	63	0	1641	0	0	2534	77
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	63	0	1641	0	0	2534	77
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	63	0	1641	0	0	2534	77
User Adj:	1.00	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	0	0	63	0	1641	0	0	2534	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	63	0	1641	0	0	2534	77
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	883	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	293	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	293	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.22	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	20.0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	20.6	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	C	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			20.6			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	63	0	1641	0	0	2534	77
ApproachDel:	xxxxxx			20.6			xxxxxx			xxxxxx		

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.4]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=63]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=4315]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	63	0	1641	0	0	2534	77

Major Street Volume: 4252
Minor Approach Volume: 63
Minor Approach Volume Threshold: -214 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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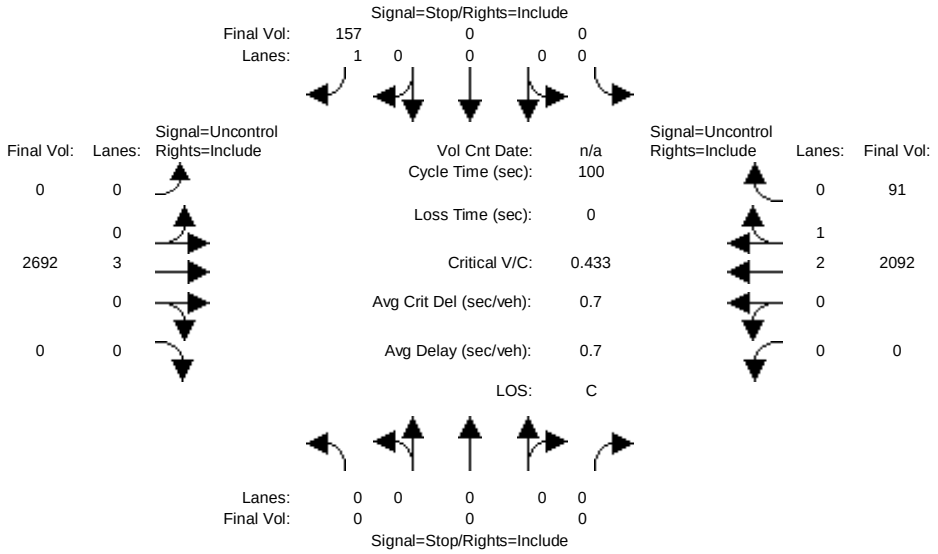
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #62: Stevens Creek Boulevard/Vallco Driveway 5



Street Name:	Vallco Driveway 5						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	0	0	0	0	0	157	0	2692	0	0	2092	91
Growth Adj:	1.00	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	0	0	157	0	2692	0	0	2092	91
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	0	0	157	0	2692	0	0	2092	91
User Adj:	1.00	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	0	0	157	0	2692	0	0	2092	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	157	0	2692	0	0	2092	91
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	743	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	362	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	362	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.43	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	53.0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	22.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	C	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			22.3			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	157	0	2692	0	0	2092	91
ApproachDel:	xxxxxx			22.3			xxxxxx			xxxxxx		

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=157]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=5032]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	157	0	2692	0	0	2092	91

Major Street Volume: 4875
Minor Approach Volume: 157
Minor Approach Volume Threshold: -261 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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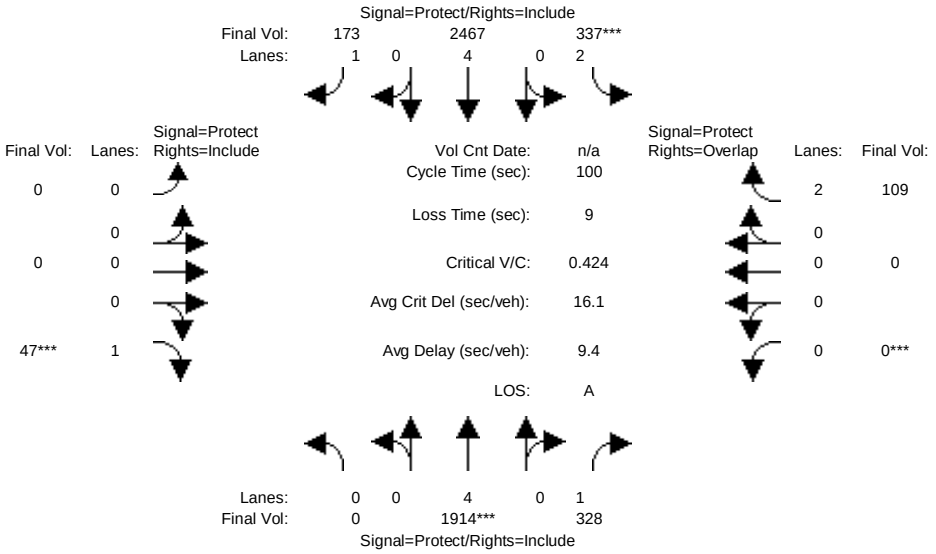
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #63: Wolfe Road/Vallco Driveway 1



Street Name:	Wolfe Road						Vallco Driveway 1					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	10	0	0	10	0	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1914	328	337	2467	173	0	0	47	0	0	109
Growth Adj:	1.00	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	1914	328	337	2467	173	0	0	47	0	0	109
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	1914	328	337	2467	173	0	0	47	0	0	109
User Adj:	1.00	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	1914	328	337	2467	173	0	0	47	0	0	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1914	328	337	2467	173	0	0	47	0	0	109
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1914	328	337	2467	173	0	0	47	0	0	109
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.83
Lanes:	0.00	4.00	1.00	2.00	4.00	1.00	0.00	0.00	1.00	0.00	0.00	2.00
Final Sat.:	0	7600	1750	3150	7600	1750	0	0	1750	0	0	3150
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.19	0.11	0.32	0.10	0.00	0.00	0.03	0.00	0.00	0.03
Crit Moves:		****		****					****	****		
Green Time:	0.0	56.8	56.8	24.2	81.0	81.0	0.0	0.0	10.0	0.0	0.0	34.2
Volume/Cap:	0.00	0.44	0.33	0.44	0.40	0.12	0.00	0.00	0.27	0.00	0.00	0.10
Uniform Del:	0.0	12.4	11.5	32.2	2.7	2.0	0.0	0.0	41.6	0.0	0.0	22.5
IncremntDel:	0.0	0.1	0.2	0.4	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0
InitQueuDel:	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	1.00	0.00	0.00	1.00	0.00	0.00	1.00
Delay/Veh:	0.0	12.5	11.7	32.6	2.7	2.0	0.0	0.0	42.4	0.0	0.0	22.5
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	12.5	11.7	32.6	2.7	2.0	0.0	0.0	42.4	0.0	0.0	22.5
LOS by Move:	A	B	B+	C-	A	A	A	A	D	A	A	C+
HCM2kAvgQ:	0	194	122	119	137	29	0	0	39	0	0	29

Note: Queue reported is the distance per lane in feet.

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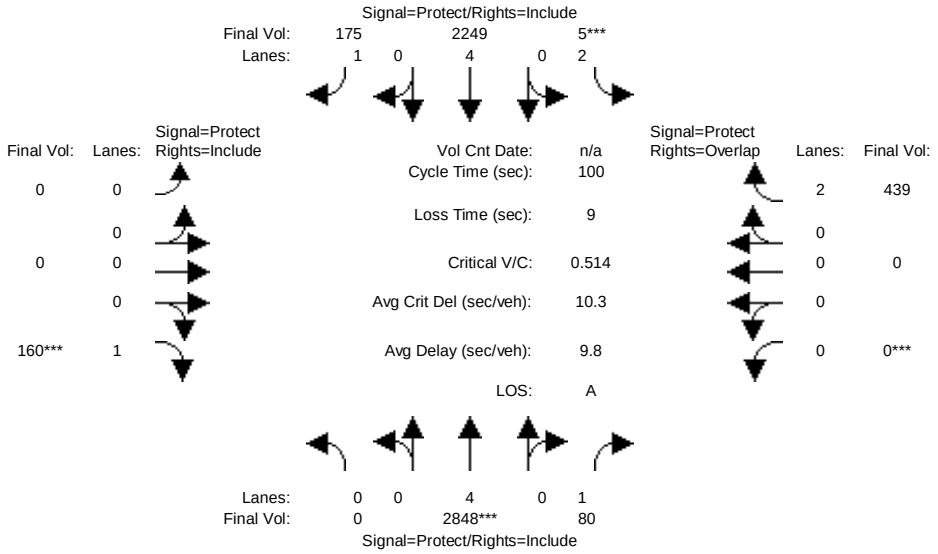
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #63: Wolfe Road/Vallco Driveway 1



Street Name:	Wolfe Road						Vallco Driveway 1					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	10	0	0	10	0	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	2848	80	5	2249	175	0	0	160	0	0	439
Growth Adj:	1.00	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	2848	80	5	2249	175	0	0	160	0	0	439
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	2848	80	5	2249	175	0	0	160	0	0	439
User Adj:	1.00	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	2848	80	5	2249	175	0	0	160	0	0	439
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2848	80	5	2249	175	0	0	160	0	0	439
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	2848	80	5	2249	175	0	0	160	0	0	439
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.83
Lanes:	0.00	4.00	1.00	2.00	4.00	1.00	0.00	0.00	1.00	0.00	0.00	2.00
Final Sat.:	0	7600	1750	3150	7600	1750	0	0	1750	0	0	3150
Capacity Analysis Module:												
Vol/Sat:	0.00	0.37	0.05	0.00	0.30	0.10	0.00	0.00	0.09	0.00	0.00	0.14
Crit Moves:		****		****					****	****		
Green Time:	0.0	67.5	67.5	7.0	74.5	74.5	0.0	0.0	16.5	0.0	0.0	23.5
Volume/Cap:	0.00	0.55	0.07	0.02	0.40	0.13	0.00	0.00	0.55	0.00	0.00	0.59
Uniform Del:	0.0	8.4	5.5	43.3	4.6	3.6	0.0	0.0	38.4	0.0	0.0	34.0
IncremntDel:	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	1.3
InitQueuDel:	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	1.00	0.00	0.00	1.00	0.00	0.00	1.00
Delay/Veh:	0.0	8.6	5.6	43.4	4.7	3.7	0.0	0.0	40.8	0.0	0.0	35.3
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	8.6	5.6	43.4	4.7	3.7	0.0	0.0	40.8	0.0	0.0	35.3
LOS by Move:	A	A	A	D	A	A	A	A	D	A	A	D+
HCM2kAvgQ:	0	275	20	2	158	38	0	0	131	0	0	170

Note: Queue reported is the distance per lane in feet.

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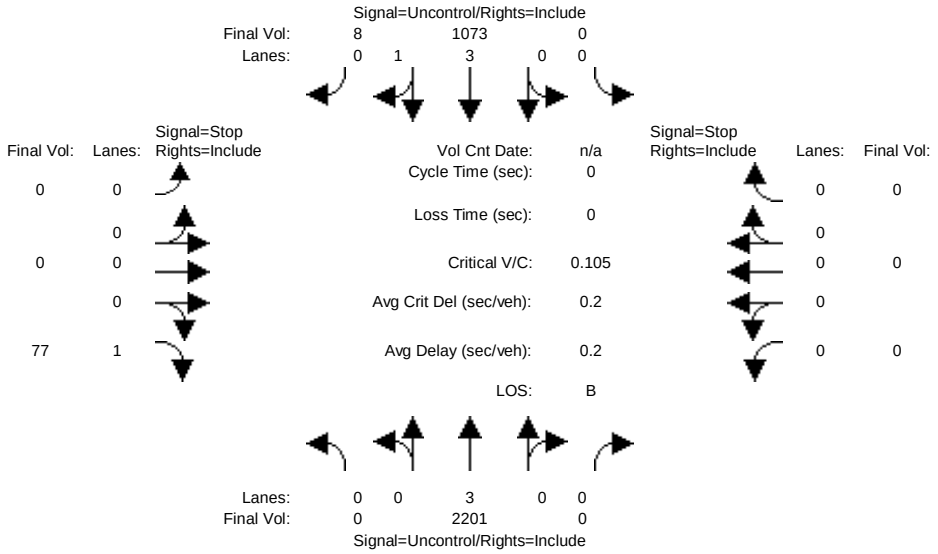
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #65: Wolfe Road/Vallco Driveway 3



Street Name:	Wolfe Road						Vallco Driveway 3					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	2201	0	0	1073	8	0	0	77	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2201	0	0	1073	8	0	0	77	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2201	0	0	1073	8	0	0	77	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	2201	0	0	1073	8	0	0	77	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	2201	0	0	1073	8	0	0	77	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	272	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	732	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	732	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.11	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	8.8	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	10.5	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			10.5			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 3	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0	2201	0	0	1073	8	0	0	77	0	0	0
ApproachDel:	xxxxxx			xxxxxx			10.5			xxxxxx		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=77]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=3359]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 3	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0	2201	0	0	1073	8	0	0	77	0	0	0

Major Street Volume: 3282
Minor Approach Volume: 77
Minor Approach Volume Threshold: -125 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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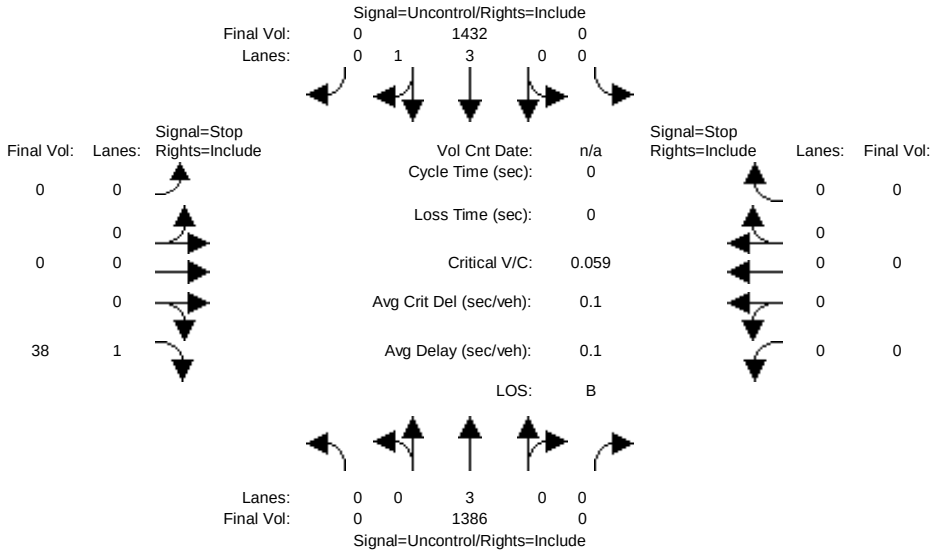
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #65: Wolfe Road/Vallco Driveway 3



Street Name:	Wolfe Road						Vallco Driveway 3					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	1386	0	0	1432	0	0	0	38	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1386	0	0	1432	0	0	0	38	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1386	0	0	1432	0	0	0	38	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	1386	0	0	1432	0	0	0	38	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1386	0	0	1432	0	0	0	38	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	358	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	644	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	644	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.06	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	4.7	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	10.9	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			10.9			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 3	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0 1386	0		0 1432	0		0	0	38	0	0	0
ApproachDel:	xxxxxx			xxxxxx			10.9			xxxxxx		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=38]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=2856]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 3	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0 1386	0		0 1432	0		0	0	38	0	0	0

Major Street Volume: 2818
Minor Approach Volume: 38
Minor Approach Volume Threshold: -72 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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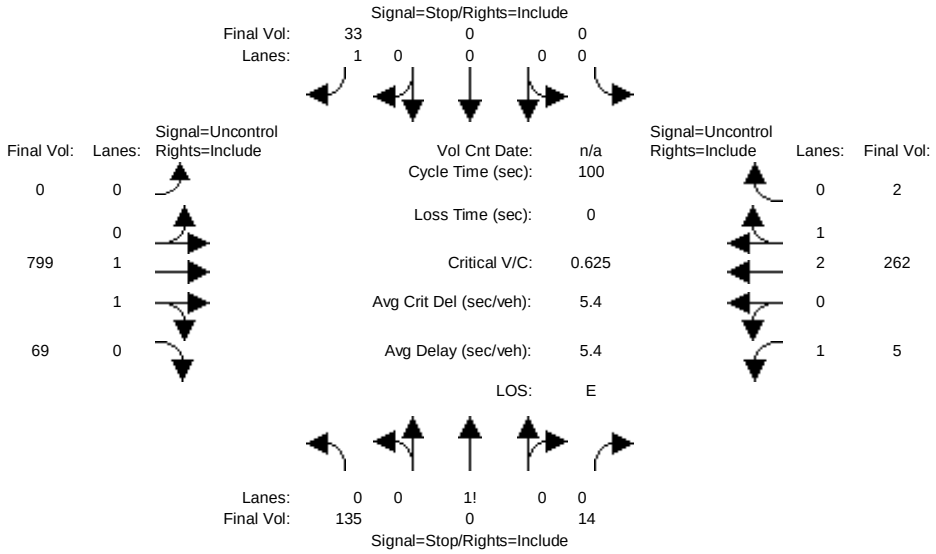
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #66: Vallco Parkway/Vallco Driveway 4



Street Name:	Vallco Driveway 4						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	135	0	14	0	0	33	0	799	69	5	262	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	135	0	14	0	0	33	0	799	69	5	262	2
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:	135	0	14	0	0	33	0	799	69	5	262	2
User Adj:	1.00	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:	135	0	14	0	0	33	0	799	69	5	262	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	135	0	14	0	0	33	0	799	69	5	262	2
Critical Gap Module:												
Critical Gp:	7.5	6.5	6.9	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	931	1108	434	xxxx	xxxx	88	xxxx	xxxx	xxxxx	868	xxxx	xxxxx
Potent Cap.:	225	212	576	xxxx	xxxx	959	xxxx	xxxx	xxxxx	785	xxxx	xxxxx
Move Cap.:	216	210	576	xxxx	xxxx	959	xxxx	xxxx	xxxxx	785	xxxx	xxxxx
Volume/Cap:	0.62	0.00	0.02	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	2.7	xxxx	xxxx	xxxxx	0.5	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	8.9	xxxxx	xxxx	xxxxx	9.6	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	A	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	229	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	4.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	45.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	E	*	*	*	*	*	*	*	*	*	*
ApproachDel:		45.7			8.9			xxxxx			xxxxx	
ApproachLOS:		E			A			*			*	

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 1! 0	0		0 0 0 0	1		0 0 1 1	0		1 0 2 1	0	
Initial Vol:	135	0	14	0	0	33	0	799	69	5	262	2
ApproachDel:	45.7			8.9			xxxxxx			xxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.9]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=149]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1319]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=33]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1319]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 1! 0	0		0 0 0 0	1		0 0 1 1	0		1 0 2 1	0	
Initial Vol:	135	0	14	0	0	33	0	799	69	5	262	2

Major Street Volume: 1137
Minor Approach Volume: 149
Minor Approach Volume Threshold: 241

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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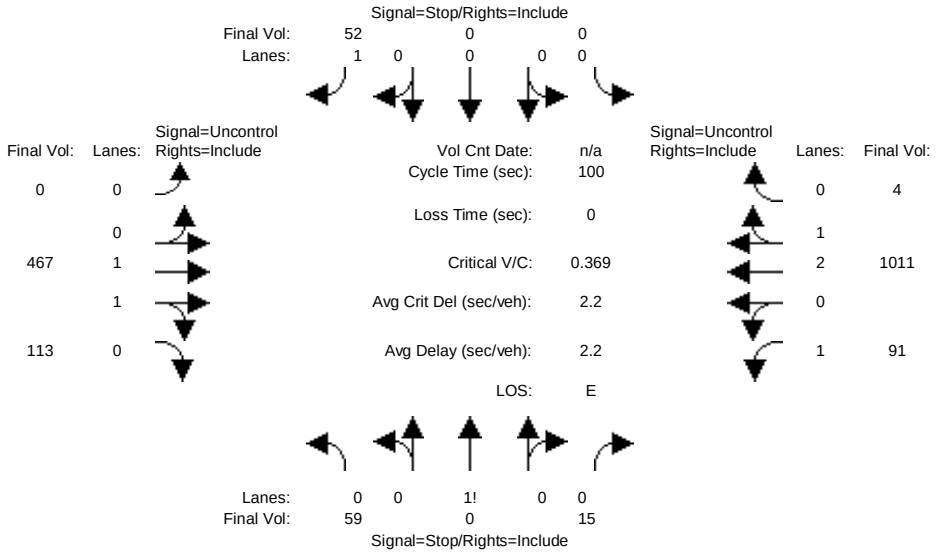
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #66: Vallco Parkway/Vallco Driveway 4



Street Name:	Vallco Driveway 4						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	59	0	15	0	0	52	0	467	113	91	1011	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:	59	0	15	0	0	52	0	467	113	91	1011	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:	59	0	15	0	0	52	0	467	113	91	1011	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:	59	0	15	0	0	52	0	467	113	91	1011	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	59	0	15	0	0	52	0	467	113	91	1011	4
Critical Gap Module:												
Critical Gp:	7.5	6.5	6.9	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1043	1721	290	xxxx	xxxx	339	xxxx	xxxx	xxxxx	580	xxxx	xxxxx
Potent Cap.:	186	90	713	xxxx	xxxx	663	xxxx	xxxx	xxxxx	1004	xxxx	xxxxx
Move Cap.:	160	82	713	xxxx	xxxx	663	xxxx	xxxx	xxxxx	1004	xxxx	xxxxx
Volume/Cap:	0.37	0.00	0.02	xxxx	xxxx	0.08	xxxx	xxxx	xxxx	0.09	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	6.4	xxxx	xxxx	xxxxx	7.5	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	10.9	xxxxx	xxxx	xxxxx	8.9	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	B	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	190	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	1.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	35.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	E	*	*	*	*	*	*	*	*	*	*
ApproachDel:		35.6			10.9			xxxxx			xxxxx	
ApproachLOS:		E			B			*			*	

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 1! 0 0			0 0 0 0 1			0 0 1 1 0			1 0 2 1 0		
Initial Vol:	59	0	15	0	0	52	0	467	113	91	1011	4
ApproachDel:	35.6			10.9			xxxxxx			xxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.7]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=74]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1812]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=52]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1812]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 1! 0 0			0 0 0 0 1			0 0 1 1 0			1 0 2 1 0		
Initial Vol:	59	0	15	0	0	52	0	467	113	91	1011	4

Major Street Volume: 1686
Minor Approach Volume: 74
Minor Approach Volume Threshold: 105

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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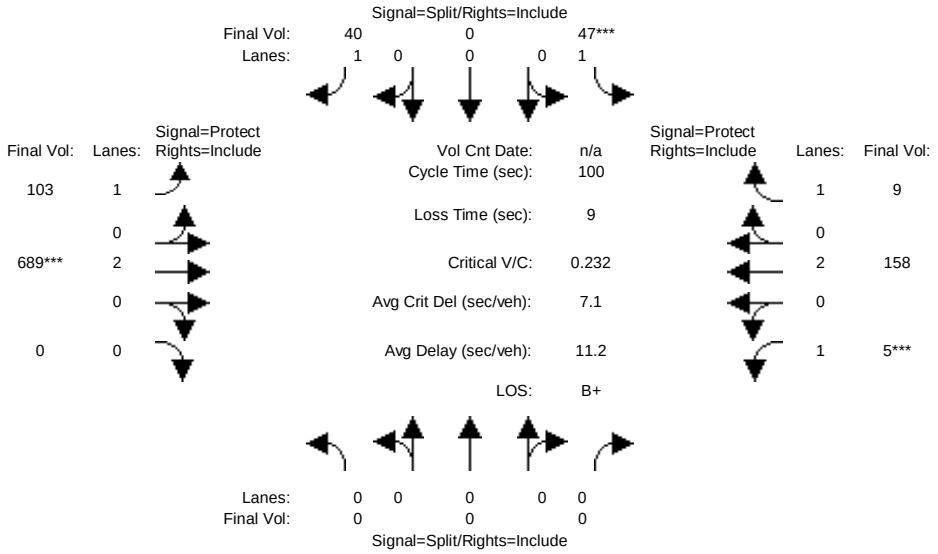
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #67: Vallco Parkway/Perimeter Road



Street Name:	Perimeter Road						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	10	0	10	7	10	0	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	47	0	40	103	689	0	5	158	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	47	0	40	103	689	0	5	158	9
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	47	0	40	103	689	0	5	158	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	47	0	40	103	689	0	5	158	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	47	0	40	103	689	0	5	158	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	47	0	40	103	689	0	5	158	9
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	1.00	2.00	1.00
Final Sat.:	0	0	0	1750	0	1750	1750	3800	0	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.02	0.06	0.18	0.00	0.00	0.04	0.01
Crit Moves:				****				****		****		
Green Time:	0.0	0.0	0.0	10.8	0.0	10.8	33.0	73.2	0.0	7.0	47.2	47.2
Volume/Cap:	0.00	0.00	0.00	0.25	0.00	0.21	0.18	0.25	0.00	0.04	0.09	0.01
Uniform Del:	0.0	0.0	0.0	40.8	0.0	40.7	23.8	4.4	0.0	43.4	14.6	14.0
IncremntDel:	0.0	0.0	0.0	0.7	0.0	0.6	0.1	0.0	0.0	0.1	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00
Delay/Veh:	0.0	0.0	0.0	41.5	0.0	41.2	24.0	4.4	0.0	43.5	14.6	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	41.5	0.0	41.2	24.0	4.4	0.0	43.5	14.6	14.0
LOS by Move:	A	A	A	D	A	D	C	A	A	D	B	B
HCM2kAvgQ:	0	0	0	41	0	34	58	86	0	5	33	4

Note: Queue reported is the distance per lane in feet.

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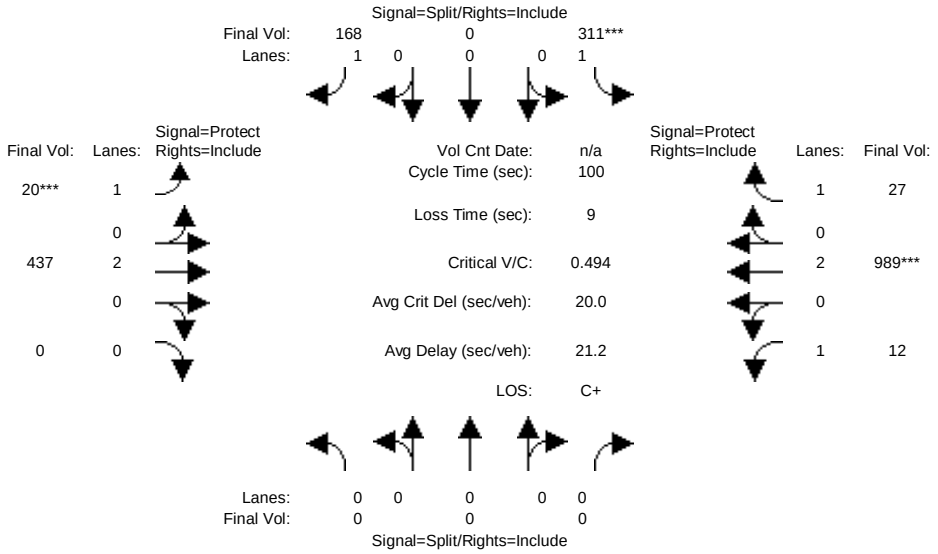
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #67: Vallco Parkway/Perimeter Road



Street Name:	Perimeter Road						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	10	0	10	7	10	0	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	311	0	168	20	437	0	12	989	27
Growth Adj:	1.00	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	311	0	168	20	437	0	12	989	27
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	311	0	168	20	437	0	12	989	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:	0	0	0	311	0	168	20	437	0	12	989	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	311	0	168	20	437	0	12	989	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:	0	0	0	311	0	168	20	437	0	12	989	27
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	1.00	2.00	1.00
Final Sat.:	0	0	0	1750	0	1750	1750	3800	0	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.18	0.00	0.10	0.01	0.12	0.00	0.01	0.26	0.02
Crit Moves:				****			****				****	
Green Time:	0.0	0.0	0.0	34.1	0.0	34.1	7.0	35.4	0.0	21.5	49.9	49.9
Volume/Cap:	0.00	0.00	0.00	0.52	0.00	0.28	0.16	0.33	0.00	0.03	0.52	0.03
Uniform Del:	0.0	0.0	0.0	26.4	0.0	24.0	43.7	23.6	0.0	31.0	17.0	12.7
IncremntDel:	0.0	0.0	0.0	0.8	0.0	0.3	0.6	0.1	0.0	0.0	0.3	0.0
InitQueuDel:	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	1.00	1.00	1.00
Delay/Veh:	0.0	0.0	0.0	27.3	0.0	24.3	44.4	23.7	0.0	31.0	17.2	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	27.3	0.0	24.3	44.4	23.7	0.0	31.0	17.2	12.8
LOS by Move:	A	A	A	C	A	C	D	C	A	C	B	B
HCM2kAvgQ:	0	0	0	214	0	102	15	118	0	8	259	11

Note: Queue reported is the distance per lane in feet.

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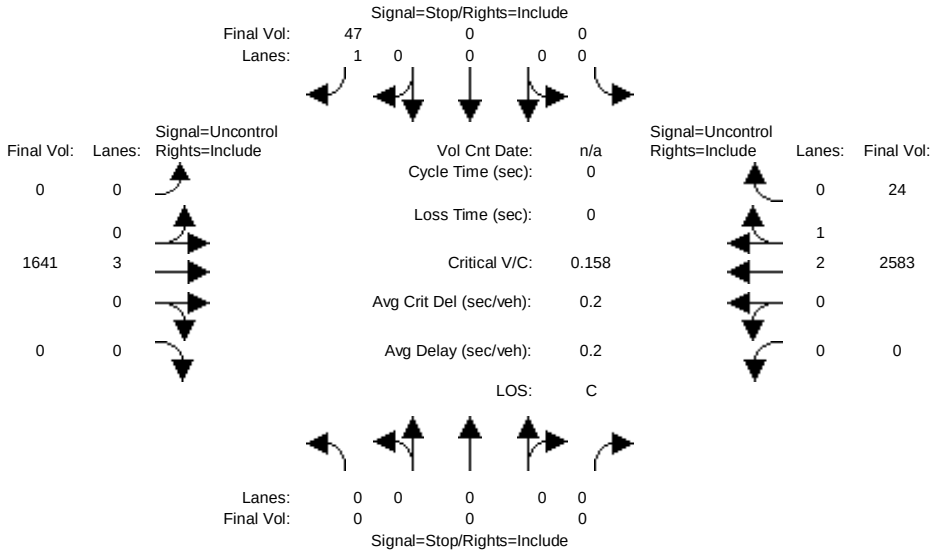
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #68: Stevens Creek Boulevard/Vallco Driveway 6



Street Name:	Vallco Driveway 6						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	0	0	0	0	47	0	1641	0	0	2583	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:	0	0	0	0	0	47	0	1641	0	0	2583	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:	0	0	0	0	0	47	0	1641	0	0	2583	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:	0	0	0	0	0	47	0	1641	0	0	2583	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	47	0	1641	0	0	2583	24
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	873	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	297	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	297	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.16	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	13.8	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	19.4	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	C	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			19.4			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #68 Stevens Creek Boulevard/Vallco Driveway 6

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	47	0	1641	0	0	2583	24
ApproachDel:	xxxxxx			19.4			xxxxxx			xxxxxx		

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=47]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=4295]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #68 Stevens Creek Boulevard/Vallco Driveway 6

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	47	0	1641	0	0	2583	24

Major Street Volume: 4248
Minor Approach Volume: 47
Minor Approach Volume Threshold: -213 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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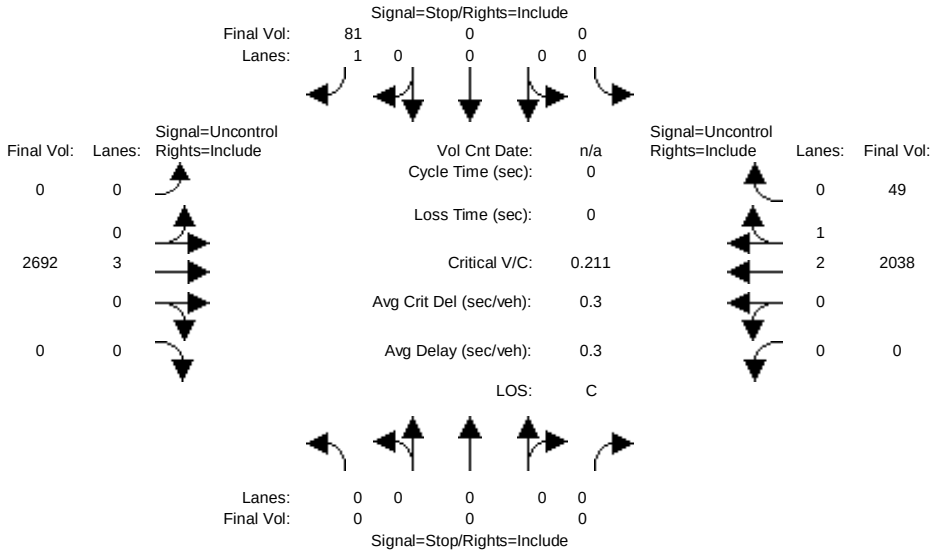
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #68: Stevens Creek Boulevard/Vallco Driveway 6



Street Name:	Vallco Driveway 6						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	0	0	0	0	81	0	2692	0	0	2038	49
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	81	0	2692	0	0	2038	49
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	0	0	81	0	2692	0	0	2038	49
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	0	0	81	0	2692	0	0	2038	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	81	0	2692	0	0	2038	49
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	704	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	384	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	384	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.21	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	19.6	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	16.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	C	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			16.9			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #68 Stevens Creek Boulevard/Vallco Driveway 6

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	81	0	2692	0	0	2038	49
ApproachDel:	xxxxxx			16.9			xxxxxx			xxxxxx		

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.4]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=81]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=4860]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #68 Stevens Creek Boulevard/Vallco Driveway 6

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	81	0	2692	0	0	2038	49

Major Street Volume: 4779
Minor Approach Volume: 81
Minor Approach Volume Threshold: -254 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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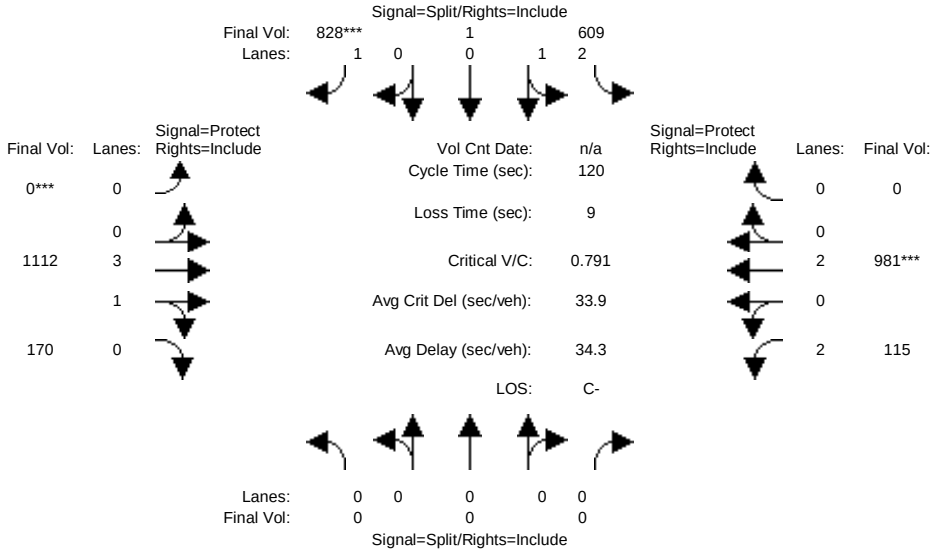
Traffix Output

Alternative Conditions

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #1: Stevens Creek Boulevard/SR 85 Ramps West



Street Name:	SR 85 Ramps West						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	609	1	828	0	1103	170	115	976	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	609	1	828	0	1103	170	115	976	0
Added Vol:	0	0	0	0	0	0	0	9	0	0	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	609	1	828	0	1112	170	115	981	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	0	0	609	1	828	0	1112	170	115	981	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	609	1	828	0	1112	170	115	981	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	609	1	828	0	1112	170	115	981	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.87	0.95	0.92	0.92	0.99	0.95	0.83	1.00	0.92
Lanes:	0.00	0.00	0.00	2.99	0.01	1.00	0.00	3.45	0.55	2.00	2.00	0.00
Final Sat.:	0	0	0	4942	8	1750	0	6504	994	3150	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.12	0.12	0.47	0.00	0.17	0.17	0.04	0.26	0.00
Crit Moves:						****	****				****	
Green Time:	0.0	0.0	0.0	71.8	71.8	71.8	0.0	29.2	29.2	10.0	39.2	0.0
Volume/Cap:	0.00	0.00	0.00	0.21	0.21	0.79	0.00	0.70	0.70	0.44	0.79	0.00
Uniform Del:	0.0	0.0	0.0	11.0	11.0	18.4	0.0	41.4	41.4	52.4	36.7	0.0
IncremntDel:	0.0	0.0	0.0	0.2	0.2	6.1	0.0	2.3	2.3	5.3	5.2	0.0
InitQueuDel:	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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	0.0	0.0	0.0	11.2	11.2	24.5	0.0	43.7	43.7	57.6	41.9	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	11.2	11.2	24.5	0.0	43.7	43.7	57.6	41.9	0.0
LOS by Move:	A	A	A	B+	B+	C	A	D	D	E+	D	A
HCM2kAvgQ:	0	0	0	96	96	656	0	300	300	59	412	0

Note: Queue reported is the distance per lane in feet.

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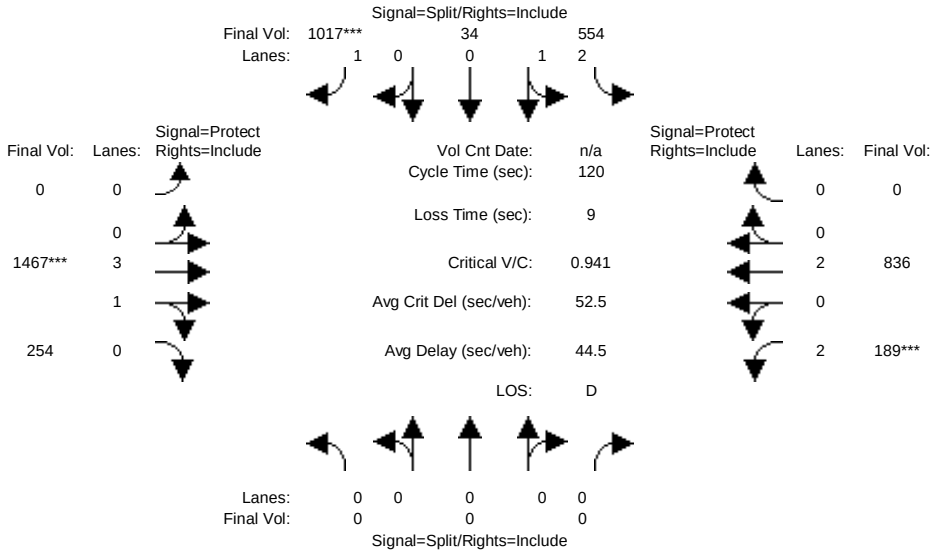
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #1: Stevens Creek Boulevard/SR 85 Ramps West



Street Name:	SR 85 Ramps West						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	0	0	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	554	34	1017	0	1437	254	189	803	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	554	34	1017	0	1437	254	189	803	0
Added Vol:	0	0	0	0	0	0	0	30	0	0	33	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	554	34	1017	0	1467	254	189	836	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	0	0	554	34	1017	0	1467	254	189	836	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	554	34	1017	0	1467	254	189	836	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	554	34	1017	0	1467	254	189	836	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.86	0.95	0.92	0.92	0.99	0.95	0.83	1.00	0.92
Lanes:	0.00	0.00	0.00	2.84	0.16	1.00	0.00	3.39	0.61	2.00	2.00	0.00
Final Sat.:	0	0	0	4662	286	1750	0	6391	1107	3150	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.12	0.12	0.58	0.00	0.23	0.23	0.06	0.22	0.00
Crit Moves:						****		****		****		
Green Time:	0.0	0.0	0.0	74.1	74.1	74.1	0.0	29.3	29.3	7.6	36.9	0.0
Volume/Cap:	0.00	0.00	0.00	0.19	0.19	0.94	0.00	0.94	0.94	0.94	0.72	0.00
Uniform Del:	0.0	0.0	0.0	10.0	10.0	21.0	0.0	44.5	44.5	56.0	36.9	0.0
IncremntDel:	0.0	0.0	0.0	0.1	0.1	16.5	0.0	11.1	11.1	49.8	3.8	0.0
InitQueuDel:	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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	0.0	0.0	0.0	10.1	10.1	37.4	0.0	55.6	55.6	105.8	40.6	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	10.1	10.1	37.4	0.0	55.6	55.6	105.8	40.6	0.0
LOS by Move:	A	A	A	B+	B+	D+	A	E+	E+	F	D	A
HCM2kAvgQ:	0	0	0	88	88	1046	0	504	504	130	350	0

Note: Queue reported is the distance per lane in feet.

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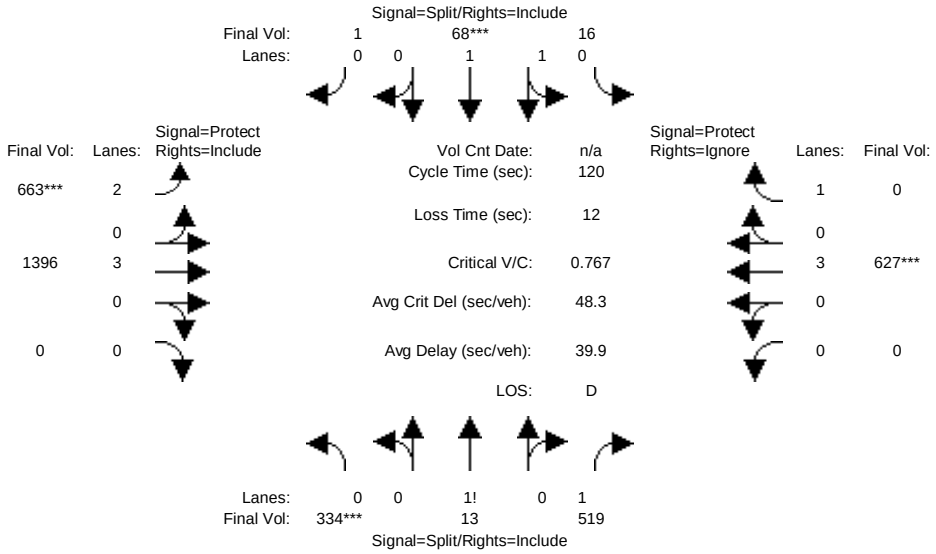
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #2: Stevens Creek Boulevard/SR 85 Ramps East



Street Name:	SR 85 Ramps East						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	0	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	334	13	519	16	68	1	663	1387	0	0	622	501
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	334	13	519	16	68	1	663	1387	0	0	622	501
Added Vol:	0	0	0	0	0	0	0	9	0	0	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	334	13	519	16	68	1	663	1396	0	0	627	501
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	0.00
PHF Volume:	334	13	519	16	68	1	663	1396	0	0	627	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	334	13	519	16	68	1	663	1396	0	0	627	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	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	334	13	519	16	68	1	663	1396	0	0	627	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.95	0.95	0.95	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	0.55	0.02	1.43	0.38	1.60	0.02	2.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	964	38	2499	678	2880	42	3150	5700	0	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.35	0.35	0.21	0.02	0.02	0.02	0.21	0.24	0.00	0.00	0.11	0.00
Crit Moves:	****				****		****				****	
Green Time:	50.9	50.9	50.9	10.0	10.0	10.0	30.9	47.1	0.0	0.0	16.2	0.0
Volume/Cap:	0.82	0.82	0.49	0.28	0.28	0.28	0.82	0.62	0.00	0.00	0.82	0.00
Uniform Del:	30.4	30.4	25.1	51.6	51.6	51.6	41.9	29.3	0.0	0.0	50.5	0.0
IncremntDel:	7.0	7.0	1.0	2.4	2.4	2.4	8.9	1.3	0.0	0.0	9.4	0.0
InitQueuDel:	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	0.00	0.00	1.00	0.00
Delay/Veh:	37.4	37.4	26.1	54.0	54.0	54.0	50.8	30.7	0.0	0.0	59.9	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:	37.4	37.4	26.1	54.0	54.0	54.0	50.8	30.7	0.0	0.0	59.9	0.0
LOS by Move:	D+	D+	C	D-	D-	D-	D	C	A	A	E+	A
HCM2kAvgQ:	576	576	262	45	45	45	365	342	0	0	243	0

Note: Queue reported is the distance per lane in feet.

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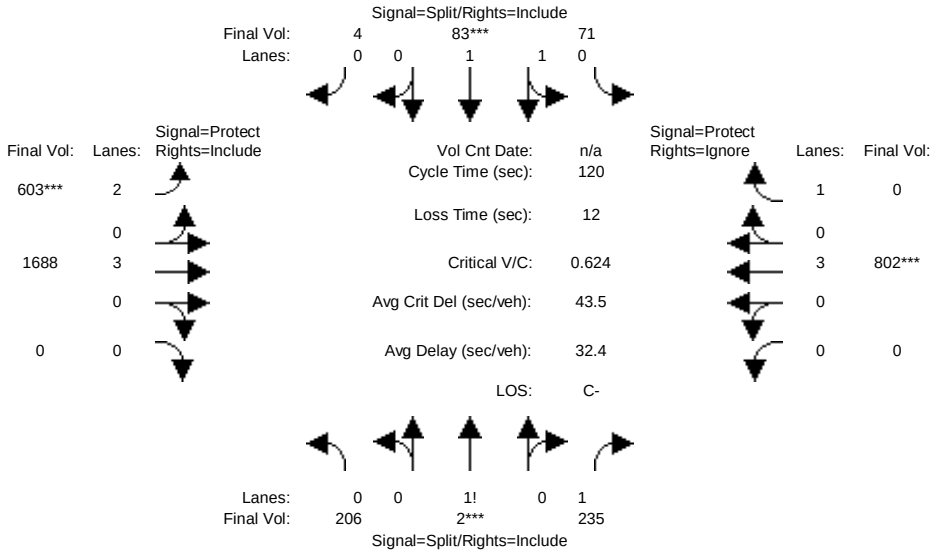
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #2: Stevens Creek Boulevard/SR 85 Ramps East



Street Name:	SR 85 Ramps East						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	0	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	206	2	235	71	83	4	603	1658	0	0	769	560
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	206	2	235	71	83	4	603	1658	0	0	769	560
Added Vol:	0	0	0	0	0	0	0	30	0	0	33	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	206	2	235	71	83	4	603	1688	0	0	802	560
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	0.00
PHF Volume:	206	2	235	71	83	4	603	1688	0	0	802	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	206	2	235	71	83	4	603	1688	0	0	802	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	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	206	2	235	71	83	4	603	1688	0	0	802	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.95	0.95	0.95	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	0.63	0.01	1.36	0.90	1.05	0.05	2.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	1108	11	2382	1618	1891	91	3150	5700	0	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.19	0.19	0.10	0.04	0.04	0.04	0.19	0.30	0.00	0.00	0.14	0.00
Crit Moves:		****			****		****				****	
Green Time:	35.2	35.2	35.2	10.0	10.0	10.0	36.2	62.8	0.0	0.0	26.6	0.0
Volume/Cap:	0.63	0.63	0.34	0.53	0.53	0.53	0.63	0.57	0.00	0.00	0.63	0.00
Uniform Del:	36.8	36.8	33.3	52.7	52.7	52.7	36.2	19.4	0.0	0.0	42.3	0.0
IncremntDel:	4.4	4.4	0.7	6.5	6.5	6.5	3.2	0.8	0.0	0.0	2.4	0.0
InitQueuDel:	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	0.00	0.00	1.00	0.00
Delay/Veh:	41.2	41.2	34.0	59.2	59.2	59.2	39.4	20.1	0.0	0.0	44.7	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:	41.2	41.2	34.0	59.2	59.2	59.2	39.4	20.1	0.0	0.0	44.7	0.0
LOS by Move:	D	D	C-	E+	E+	E+	D	C+	A	A	D	A
HCM2kAvgQ:	297	297	135	92	92	92	271	328	0	0	242	0

Note: Queue reported is the distance per lane in feet.

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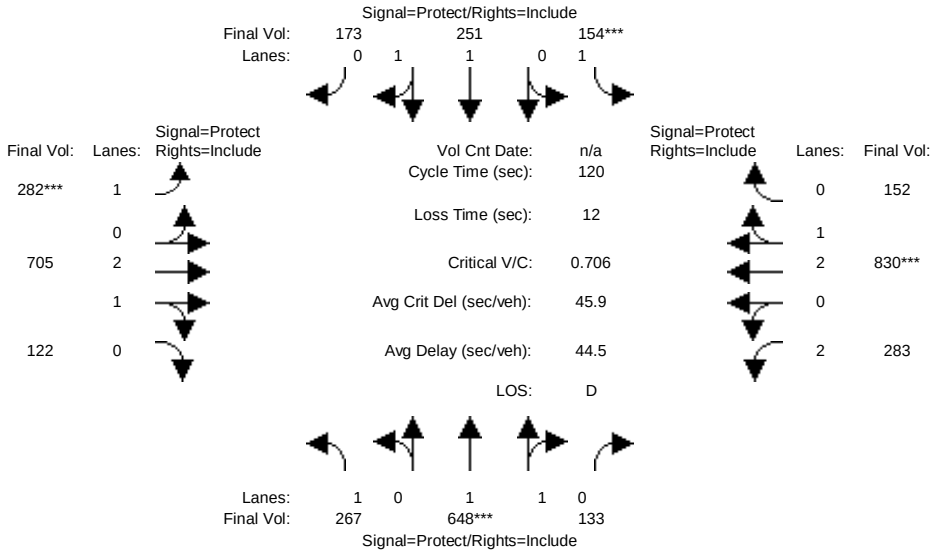
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #3: Stevens Creek Boulevard/Stelling Road



Street Name:	Stelling Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	267	648	133	154	251	173	282	687	122	283	819	152
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	267	648	133	154	251	173	282	687	122	283	819	152
Added Vol:	0	0	0	0	0	0	0	18	0	0	11	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	267	648	133	154	251	173	282	705	122	283	830	152
User Adj:	1.00	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:	267	648	133	154	251	173	282	705	122	283	830	152
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	267	648	133	154	251	173	282	705	122	283	830	152
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	267	648	133	154	251	173	282	705	122	283	830	152
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.99	0.95	0.92	0.99	0.95	0.83	0.99	0.95
Lanes:	1.00	1.65	0.35	1.00	1.16	0.84	1.00	2.54	0.46	2.00	2.52	0.48
Final Sat.:	1750	3069	630	1750	2189	1509	1750	4773	826	3150	4732	867
Capacity Analysis Module:												
Vol/Sat:	0.15	0.21	0.21	0.09	0.11	0.11	0.16	0.15	0.15	0.09	0.18	0.18
Crit Moves:		****		****			****				****	
Green Time:	29.0	35.9	35.9	15.0	21.8	21.8	27.4	35.6	35.6	21.6	29.8	29.8
Volume/Cap:	0.63	0.71	0.71	0.71	0.63	0.63	0.71	0.50	0.50	0.50	0.71	0.71
Uniform Del:	40.7	37.4	37.4	50.4	45.4	45.4	42.6	34.9	34.9	44.3	41.1	41.1
IncremntDel:	7.0	3.8	3.8	17.5	4.5	4.5	10.1	1.1	1.1	3.1	3.0	3.0
InitQueuDel:	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	41.2	41.2	67.9	49.8	49.8	52.7	35.9	35.9	47.4	44.2	44.2
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	41.2	41.2	67.9	49.8	49.8	52.7	35.9	35.9	47.4	44.2	44.2
LOS by Move:	D	D	D	E	D	D	D-	D+	D+	D	D	D
HCM2kAvgQ:	256	351	351	183	207	207	288	217	217	152	307	307

Note: Queue reported is the distance per lane in feet.

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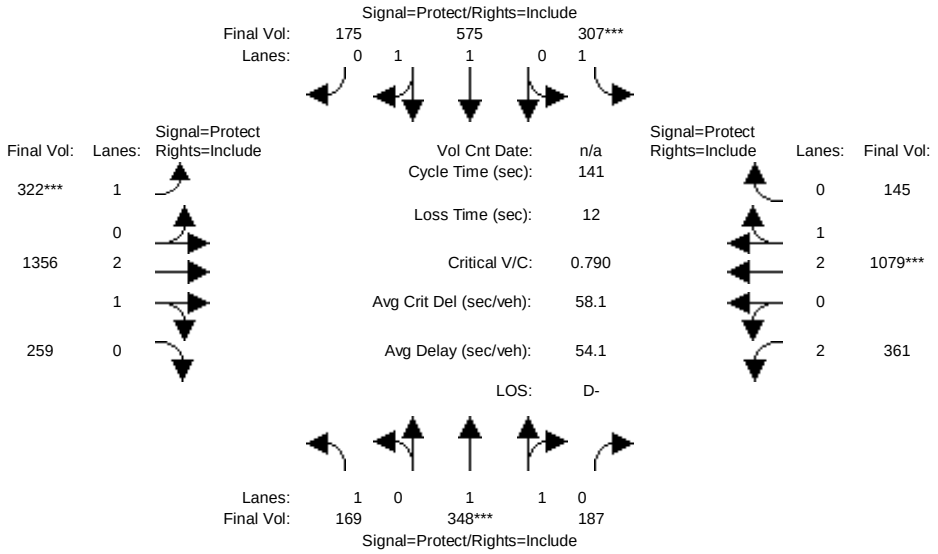
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #3: Stevens Creek Boulevard/Stelling Road



Street Name:	Stelling Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	169	348	187	307	575	175	322	1295	259	361	1013	145
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	169	348	187	307	575	175	322	1295	259	361	1013	145
Added Vol:	0	0	0	0	0	0	0	61	0	0	66	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	169	348	187	307	575	175	322	1356	259	361	1079	145
User Adj:	1.00	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:	169	348	187	307	575	175	322	1356	259	361	1079	145
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	348	187	307	575	175	322	1356	259	361	1079	145
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	169	348	187	307	575	175	322	1356	259	361	1079	145
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	0.98	0.95	0.92	0.99	0.95	0.83	0.99	0.95
Lanes:	1.00	1.28	0.72	1.00	1.52	0.48	1.00	2.50	0.50	2.00	2.63	0.37
Final Sat.:	1750	2406	1293	1750	2836	863	1750	4701	898	3150	4936	663
Capacity Analysis Module:												
Vol/Sat:	0.10	0.14	0.14	0.18	0.20	0.20	0.18	0.29	0.29	0.11	0.22	0.22
Crit Moves:		****		****			****				****	
Green Time:	18.4	25.8	25.8	31.3	38.7	38.7	32.8	51.4	51.4	20.4	39.0	39.0
Volume/Cap:	0.74	0.79	0.79	0.79	0.74	0.74	0.79	0.79	0.79	0.79	0.79	0.79
Uniform Del:	59.0	55.0	55.0	51.7	46.5	46.5	50.8	40.0	40.0	58.2	47.2	47.2
IncremntDel:	19.1	9.1	9.1	15.0	4.8	4.8	14.4	3.2	3.2	13.1	4.2	4.2
InitQueuDel:	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:	78.1	64.1	64.1	66.8	51.4	51.4	65.2	43.2	43.2	71.3	51.4	51.4
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:	78.1	64.1	64.1	66.8	51.4	51.4	65.2	43.2	43.2	71.3	51.4	51.4
LOS by Move:	E-	E	E	E	D-	D-	E	D	D	E	D-	D-
HCM2kAvgQ:	228	329	329	382	405	405	397	559	559	274	453	453

Note: Queue reported is the distance per lane in feet.

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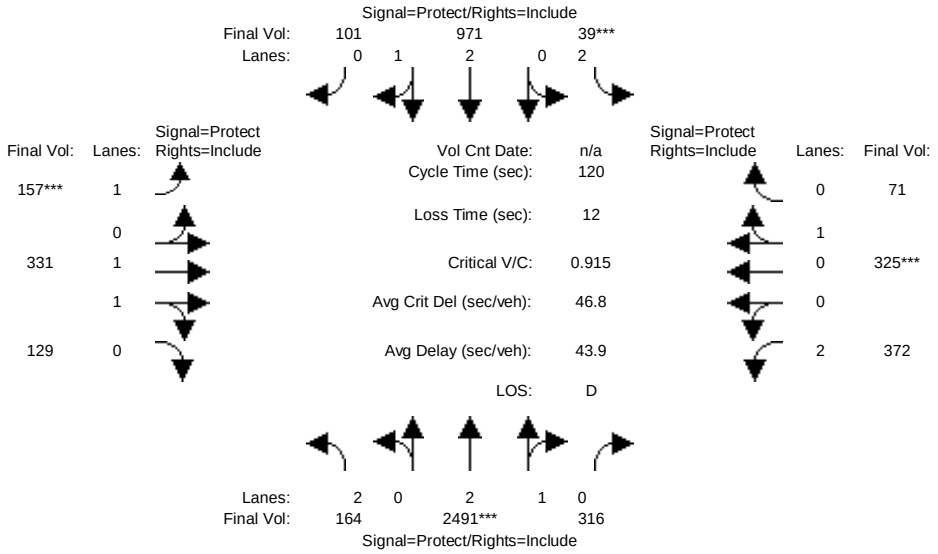
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #4: Sunnyvale Saratoga Road/Remington Drive



Street Name:	Sunnyvale Saratoga Road						Remington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	159	2486	316	39	962	101	157	331	120	372	325	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	159	2486	316	39	962	101	157	331	120	372	325	71
Added Vol:	5	5	0	0	9	0	0	0	9	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	164	2491	316	39	971	101	157	331	129	372	325	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:	164	2491	316	39	971	101	157	331	129	372	325	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	164	2491	316	39	971	101	157	331	129	372	325	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:	164	2491	316	39	971	101	157	331	129	372	325	71
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	0.99	0.95	0.92	0.98	0.95	0.83	0.95	0.95
Lanes:	2.00	2.65	0.35	2.00	2.71	0.29	1.00	1.42	0.58	2.00	0.82	0.18
Final Sat.:	3150	4969	630	3150	5072	528	1750	2662	1037	3150	1477	323
Capacity Analysis Module:												
Vol/Sat:	0.05	0.50	0.50	0.01	0.19	0.19	0.09	0.12	0.12	0.12	0.22	0.22
Crit Moves:		****		****			****				****	
Green Time:	16.2	62.4	62.4	7.0	53.2	53.2	11.2	19.8	19.8	18.8	27.4	27.4
Volume/Cap:	0.39	0.96	0.96	0.21	0.43	0.43	0.96	0.75	0.75	0.75	0.96	0.96
Uniform Del:	47.3	27.7	27.7	53.9	23.0	23.0	54.2	47.8	47.8	48.4	45.8	45.8
IncremntDel:	2.6	10.1	10.1	2.6	0.5	0.5	61.5	8.4	8.4	10.3	36.2	36.2
InitQueuDel:	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	37.8	37.8	56.5	23.5	23.5	115.7	56.2	56.2	58.7	82.0	82.0
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:	50.0	37.8	37.8	56.5	23.5	23.5	115.7	56.2	56.2	58.7	82.0	82.0
LOS by Move:	D	D+	D+	E+	C	C	F	E+	E+	E+	F	F
HCM2kAvgQ:	90	986	986	25	227	227	247	249	249	239	502	502

Note: Queue reported is the distance per lane in feet.

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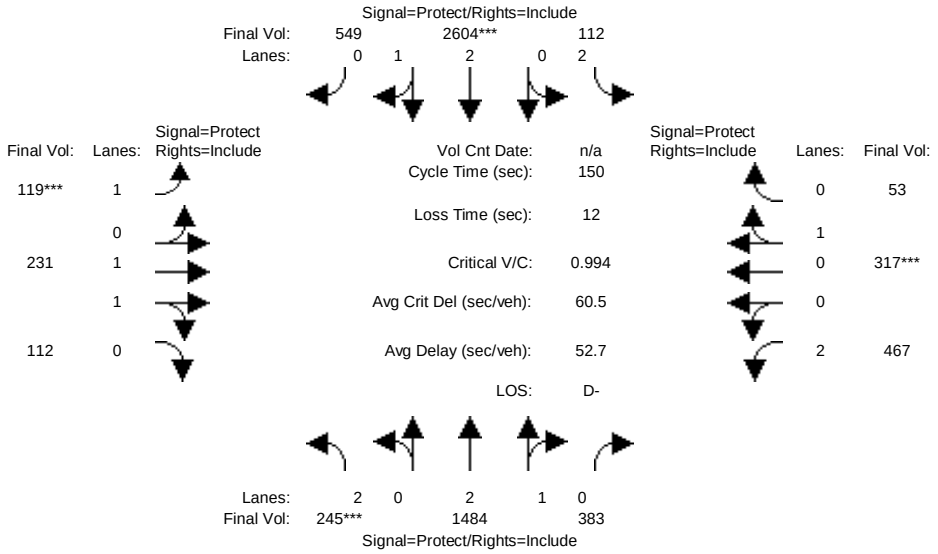
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #4: Sunnyvale Saratoga Road/Remington Drive



Street Name:	Sunnyvale Saratoga Road						Remington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	212	1451	383	112	2574	549	119	231	82	467	317	53
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	212	1451	383	112	2574	549	119	231	82	467	317	53
Added Vol:	33	33	0	0	30	0	0	0	30	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	245	1484	383	112	2604	549	119	231	112	467	317	53
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	245	1484	383	112	2604	549	119	231	112	467	317	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	245	1484	383	112	2604	549	119	231	112	467	317	53
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	245	1484	383	112	2604	549	119	231	112	467	317	53
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	0.99	0.95	0.92	0.99	0.95	0.83	0.95	0.95
Lanes:	2.00	2.36	0.64	2.00	2.46	0.54	1.00	1.33	0.67	2.00	0.86	0.14
Final Sat.:	3150	4450	1148	3150	4624	975	1750	2491	1208	3150	1542	258
Capacity Analysis Module:												
Vol/Sat:	0.08	0.33	0.33	0.04	0.56	0.56	0.07	0.09	0.09	0.15	0.21	0.21
Crit Moves:	****				****		****				****	
Green Time:	11.7	84.8	84.8	11.9	85.0	85.0	10.3	15.9	15.9	25.4	31.0	31.0
Volume/Cap:	0.99	0.59	0.59	0.45	0.99	0.99	0.99	0.88	0.88	0.88	0.99	0.99
Uniform Del:	69.1	21.2	21.2	65.9	32.3	32.3	69.8	66.1	66.1	60.8	59.4	59.4
IncremntDel:	55.8	0.8	0.8	5.8	14.6	14.6	80.7	23.0	23.0	18.0	45.2	45.2
InitQueuDel:	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:	124.9	22.0	22.0	71.7	46.9	46.9	150.5	89.0	89.0	78.8	105	104.6
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:	124.9	22.0	22.0	71.7	46.9	46.9	150.5	89.0	89.0	78.8	105	104.6
LOS by Move:	F	C+	C+	E	D	D	F	F	F	E-	F	F
HCM2kAvgQ:	260	465	465	86	1385	1385	234	265	265	385	577	577

Note: Queue reported is the distance per lane in feet.

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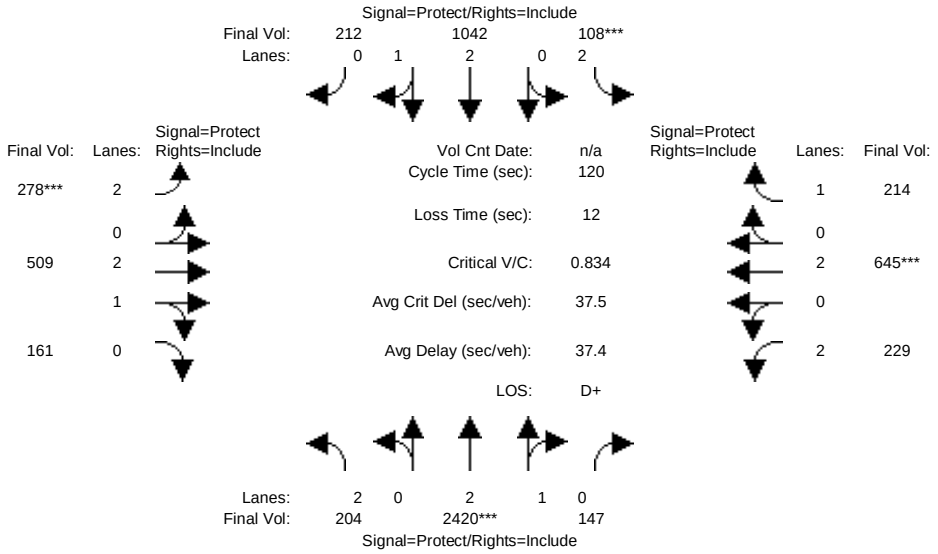
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #5: Sunnyvale Saratoga Road/Fremont Avenue



Street Name:	Sunnyvale Saratoga Road						Fremont Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	204	2409	147	108	1024	212	278	509	161	229	645	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
Initial Bse:	204	2409	147	108	1024	212	278	509	161	229	645	214
Added Vol:	0	11	0	0	18	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	204	2420	147	108	1042	212	278	509	161	229	645	214
User Adj:	1.00	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:	204	2420	147	108	1042	212	278	509	161	229	645	214
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	204	2420	147	108	1042	212	278	509	161	229	645	214
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	204	2420	147	108	1042	212	278	509	161	229	645	214
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.98	0.95	0.83	0.99	0.95	0.83	0.99	0.95	0.83	1.00	0.92
Lanes:	2.00	2.82	0.18	2.00	2.47	0.53	2.00	2.25	0.75	2.00	2.00	1.00
Final Sat.:	3150	5279	321	3150	4652	946	3150	4253	1345	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.46	0.46	0.03	0.22	0.22	0.09	0.12	0.12	0.07	0.17	0.12
Crit Moves:		****			****			****			****	
Green Time:	16.1	64.6	64.6	7.0	55.6	55.6	12.4	22.6	22.6	13.7	23.9	23.9
Volume/Cap:	0.48	0.85	0.85	0.59	0.48	0.48	0.85	0.63	0.63	0.63	0.85	0.61
Uniform Del:	48.1	23.6	23.6	55.1	22.3	22.3	52.9	44.9	44.9	50.7	46.3	43.8
IncremntDel:	3.9	3.3	3.3	13.0	0.6	0.6	23.4	2.9	2.9	8.3	11.6	7.8
InitQueuDel:	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:	52.1	26.8	26.8	68.1	22.9	22.9	76.2	47.8	47.8	59.0	57.9	51.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.1	26.8	26.8	68.1	22.9	22.9	76.2	47.8	47.8	59.0	57.9	51.6
LOS by Move:	D-	C	C	E	C+	C+	E-	D	D	E+	E+	D-
HCM2kAvgQ:	117	734	734	82	268	268	215	214	214	148	353	213

Note: Queue reported is the distance per lane in feet.

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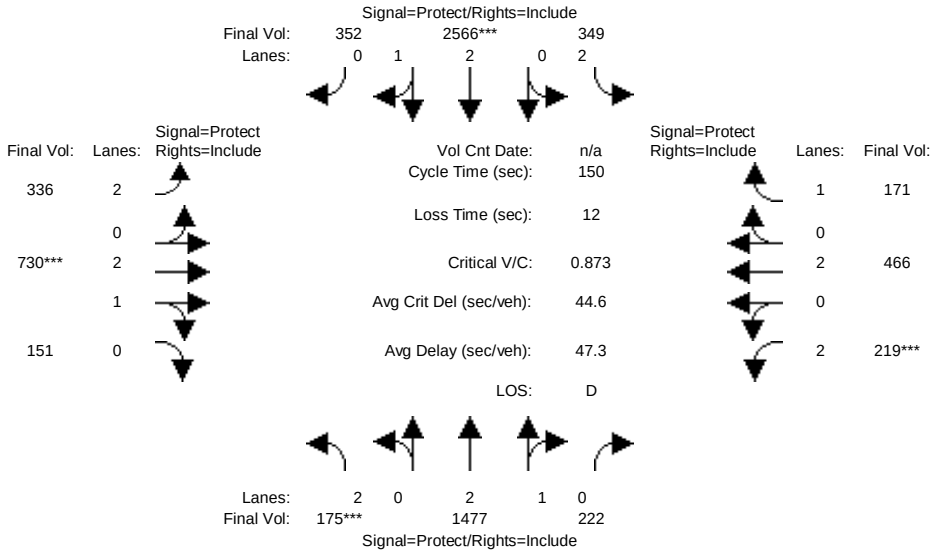
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #5: Sunnyvale Saratoga Road/Fremont Avenue



Street Name:	Sunnyvale Saratoga Road						Fremont Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	175	1411	222	349	2505	352	336	730	151	219	466	171
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	175	1411	222	349	2505	352	336	730	151	219	466	171
Added Vol:	0	66	0	0	61	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	175	1477	222	349	2566	352	336	730	151	219	466	171
User Adj:	1.00	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:	175	1477	222	349	2566	352	336	730	151	219	466	171
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	175	1477	222	349	2566	352	336	730	151	219	466	171
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	175	1477	222	349	2566	352	336	730	151	219	466	171
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	0.99	0.95	0.83	0.99	0.95	0.83	1.00	0.92
Lanes:	2.00	2.59	0.41	2.00	2.62	0.38	2.00	2.47	0.53	2.00	2.00	1.00
Final Sat.:	3150	4867	732	3150	4924	675	3150	4639	960	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.30	0.30	0.11	0.52	0.52	0.11	0.16	0.16	0.07	0.12	0.10
Crit Moves:	****				****			****			****	
Green Time:	9.5	72.5	72.5	26.5	89.5	89.5	18.1	27.0	27.0	11.9	20.8	20.8
Volume/Cap:	0.87	0.63	0.63	0.63	0.87	0.87	0.88	0.87	0.87	0.87	0.88	0.70
Uniform Del:	69.6	28.7	28.7	57.2	25.5	25.5	64.9	59.8	59.8	68.3	63.4	61.6
IncremntDel:	37.4	1.1	1.1	5.3	3.5	3.5	24.4	10.4	10.4	31.8	18.9	15.7
InitQueuDel:	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:	107.1	29.8	29.8	62.5	29.0	29.0	89.3	70.2	70.2	100.1	82.3	77.3
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:	107.1	29.8	29.8	62.5	29.0	29.0	89.3	70.2	70.2	100.1	82.3	77.3
LOS by Move:	F	C	C	E	C	C	F	E	E	F	F	E-
HCM2kAvgQ:	179	486	486	241	1002	1002	298	403	403	212	333	234

Note: Queue reported is the distance per lane in feet.

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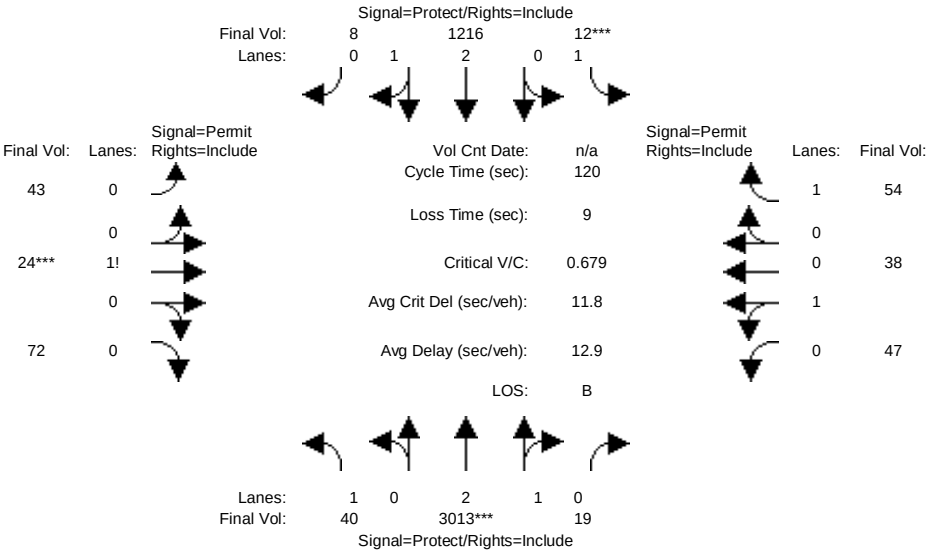
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #6: Sunnyvale Saratoga Road/Cheyenne Drive



Street Name:	Sunnyvale Saratoga Road						Cheyenne Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	40	3002	19	12	1198	8	43	24	72	47	38	54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	40	3002	19	12	1198	8	43	24	72	47	38	54
Added Vol:	0	11	0	0	18	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	40	3013	19	12	1216	8	43	24	72	47	38	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:	40	3013	19	12	1216	8	43	24	72	47	38	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	3013	19	12	1216	8	43	24	72	47	38	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:	40	3013	19	12	1216	8	43	24	72	47	38	54
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.92	0.92	0.95	0.95	0.92
Lanes:	1.00	2.98	0.02	1.00	2.98	0.02	0.31	0.17	0.52	0.55	0.45	1.00
Final Sat.:	1750	5565	35	1750	5563	37	541	302	906	995	805	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.54	0.54	0.01	0.22	0.22	0.08	0.08	0.08	0.05	0.05	0.03
Crit Moves:		****		****				****				
Green Time:	20.6	90.7	90.7	7.0	77.1	77.1	13.3	13.3	13.3	13.3	13.3	13.3
Volume/Cap:	0.13	0.72	0.72	0.12	0.34	0.34	0.72	0.72	0.72	0.43	0.43	0.28
Uniform Del:	42.1	7.8	7.8	53.6	9.8	9.8	51.5	51.5	51.5	49.8	49.8	48.9
IncremntDel:	0.9	1.1	1.1	2.3	0.3	0.3	20.2	20.2	20.2	6.5	6.5	3.5
InitQueuDel:	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:	43.1	8.9	8.9	55.9	10.1	10.1	71.8	71.8	71.8	56.3	56.3	52.5
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:	43.1	8.9	8.9	55.9	10.1	10.1	71.8	71.8	71.8	56.3	56.3	52.5
LOS by Move:	D	A	A	E+	B+	B+	E	E	E	E+	E+	D-
HCM2kAvgQ:	35	517	517	14	171	171	171	171	171	87	87	54

Note: Queue reported is the distance per lane in feet.

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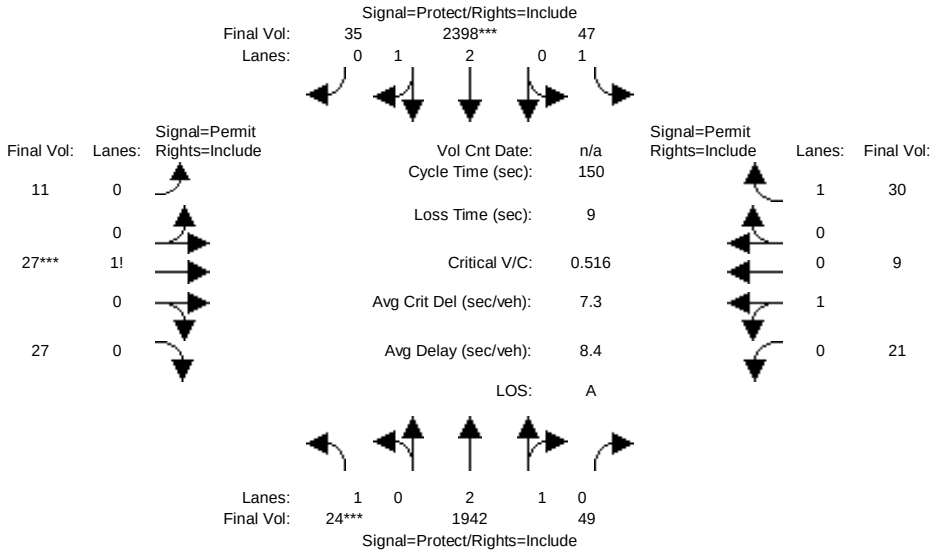
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #6: Sunnyvale Saratoga Road/Cheyenne Drive



Street Name:	Sunnyvale Saratoga Road						Cheyenne Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	24	1876	49	47	2337	35	11	27	27	21	9	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	24	1876	49	47	2337	35	11	27	27	21	9	30
Added Vol:	0	66	0	0	61	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	24	1942	49	47	2398	35	11	27	27	21	9	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:	24	1942	49	47	2398	35	11	27	27	21	9	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	1942	49	47	2398	35	11	27	27	21	9	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:	24	1942	49	47	2398	35	11	27	27	21	9	30
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.92	0.92	0.95	0.95	0.92
Lanes:	1.00	2.92	0.08	1.00	2.96	0.04	0.17	0.42	0.41	0.70	0.30	1.00
Final Sat.:	1750	5462	138	1750	5519	81	296	727	727	1260	540	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.36	0.36	0.03	0.43	0.43	0.04	0.04	0.04	0.02	0.02	0.02
Crit Moves:	****				****			****				
Green Time:	7.0	115	115.3	15.1	123	123.4	10.6	10.6	10.6	10.6	10.6	10.6
Volume/Cap:	0.29	0.46	0.46	0.27	0.53	0.53	0.53	0.53	0.53	0.24	0.24	0.24
Uniform Del:	69.1	6.2	6.2	62.3	4.2	4.2	67.3	67.3	67.3	65.9	65.9	65.9
IncremntDel:	8.9	0.4	0.4	3.7	0.4	0.4	15.3	15.3	15.3	4.4	4.4	4.6
InitQueuDel:	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:	78.0	6.6	6.6	66.0	4.6	4.6	82.6	82.6	82.6	70.3	70.3	70.6
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:	78.0	6.6	6.6	66.0	4.6	4.6	82.6	82.6	82.6	70.3	70.3	70.6
LOS by Move:	E-	A	A	E	A	A	F	F	F	E	E	E
HCM2kAvgQ:	36	274	274	58	297	297	96	96	96	39	39	40

Note: Queue reported is the distance per lane in feet.

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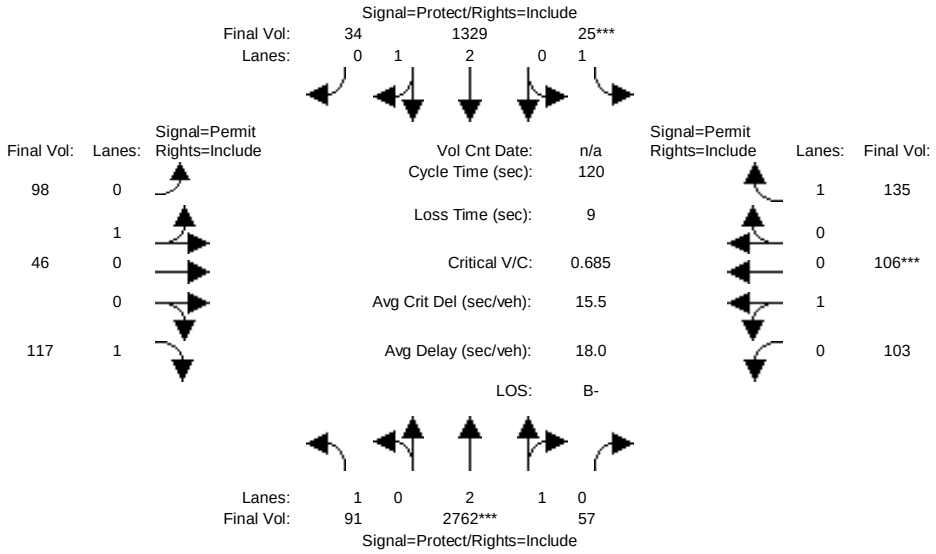
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #7: Sunnyvale Saratoga Road/Alberta Avenue



Street Name:	Sunnyvale Saratoga Road						Alberta Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	91	2751	57	25	1311	34	98	46	117	103	106	135
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	2751	57	25	1311	34	98	46	117	103	106	135
Added Vol:	0	11	0	0	18	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	91	2762	57	25	1329	34	98	46	117	103	106	135
User Adj:	1.00	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	2762	57	25	1329	34	98	46	117	103	106	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	2762	57	25	1329	34	98	46	117	103	106	135
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	2762	57	25	1329	34	98	46	117	103	106	135
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.94	0.06	1.00	2.92	0.08	0.68	0.32	1.00	0.49	0.51	1.00
Final Sat.:	1750	5487	113	1750	5460	140	1225	575	1750	887	913	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.50	0.50	0.01	0.24	0.24	0.08	0.08	0.07	0.12	0.12	0.08
Crit Moves:		****		****							****	
Green Time:	17.7	84.5	84.5	7.0	73.8	73.8	19.5	19.5	19.5	19.5	19.5	19.5
Volume/Cap:	0.35	0.71	0.71	0.24	0.40	0.40	0.49	0.49	0.41	0.71	0.71	0.47
Uniform Del:	46.0	10.6	10.6	54.0	11.7	11.7	45.8	45.8	45.1	47.6	47.6	45.6
IncremntDel:	3.8	1.1	1.1	5.6	0.3	0.3	5.8	5.8	4.4	13.9	13.9	5.6
InitQueuDel:	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	11.7	11.7	59.6	12.1	12.1	51.6	51.6	49.5	61.5	61.5	51.2
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	11.7	11.7	59.6	12.1	12.1	51.6	51.6	49.5	61.5	61.5	51.2
LOS by Move:	D	B+	B+	E+	B	B	D-	D-	D	E	E	D-
HCM2kAvgQ:	87	534	534	29	212	212	138	138	112	227	227	133

Note: Queue reported is the distance per lane in feet.

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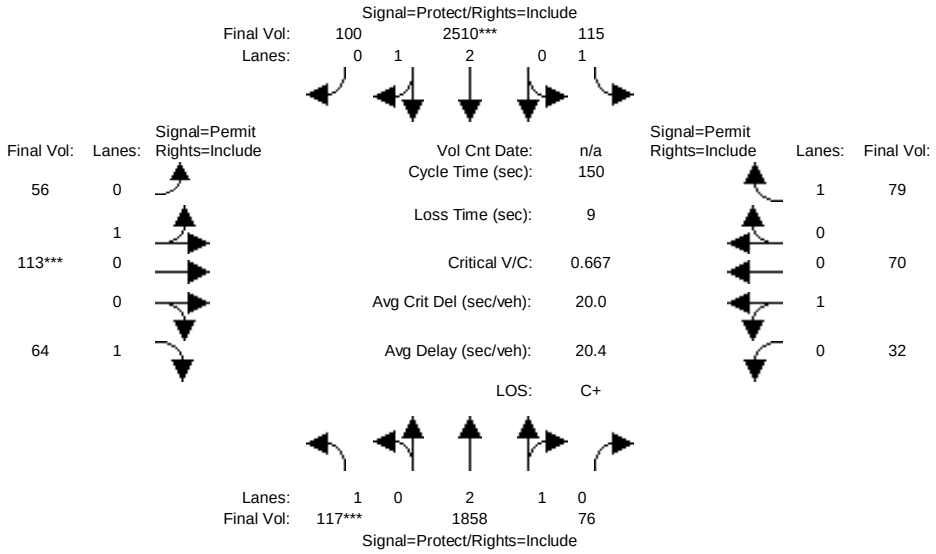
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #7: Sunnyvale Saratoga Road/Alberta Avenue



Street Name:	Sunnyvale Saratoga Road						Alberta Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	117	1792	76	115	2449	100	56	113	64	32	70	79
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	117	1792	76	115	2449	100	56	113	64	32	70	79
Added Vol:	0	66	0	0	61	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	117	1858	76	115	2510	100	56	113	64	32	70	79
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	117	1858	76	115	2510	100	56	113	64	32	70	79
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	117	1858	76	115	2510	100	56	113	64	32	70	79
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	117	1858	76	115	2510	100	56	113	64	32	70	79
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.88	0.12	1.00	2.88	0.12	0.33	0.67	1.00	0.31	0.69	1.00
Final Sat.:	1750	5380	220	1750	5385	215	596	1204	1750	565	1235	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.35	0.35	0.07	0.47	0.47	0.09	0.09	0.04	0.06	0.06	0.05
Crit Moves:	****				****			****				
Green Time:	15.0	101	100.7	19.2	105	104.8	21.1	21.1	21.1	21.1	21.1	21.1
Volume/Cap:	0.67	0.51	0.51	0.51	0.67	0.67	0.67	0.67	0.26	0.40	0.40	0.32
Uniform Del:	65.1	12.4	12.4	61.1	12.7	12.7	61.1	61.1	57.5	58.7	58.7	58.0
IncremntDel:	18.3	0.5	0.5	8.2	0.9	0.9	13.1	13.1	2.5	4.7	4.7	3.4
InitQueuDel:	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:	83.4	12.9	12.9	69.3	13.6	13.6	74.2	74.2	60.0	63.4	63.4	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:	83.4	12.9	12.9	69.3	13.6	13.6	74.2	74.2	60.0	63.4	63.4	61.4
LOS by Move:	F	B	B	E	B	B	E	E	E	E	E	E
HCM2kAvgQ:	169	369	369	146	569	569	220	220	73	118	118	92

Note: Queue reported is the distance per lane in feet.

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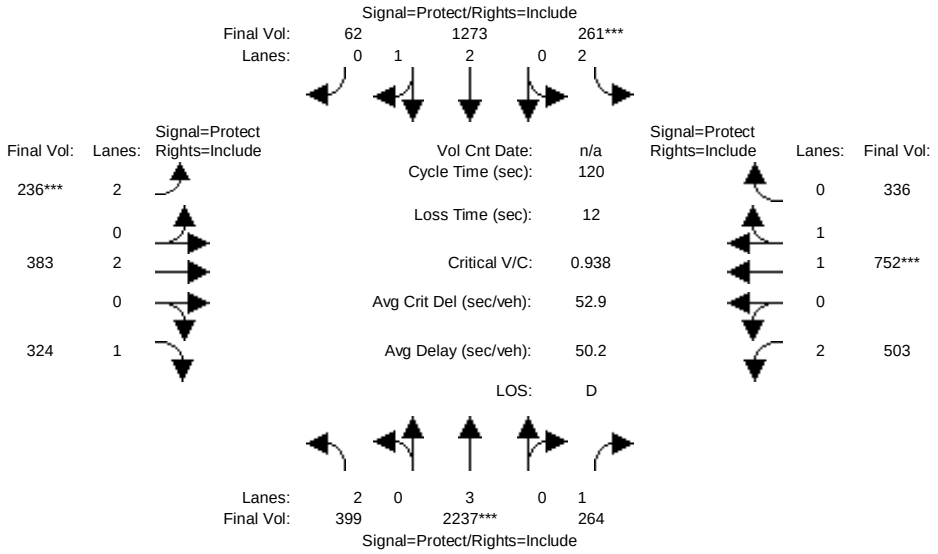
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #8: De Anza Boulevard/Homestead Road



Street Name:	De Anza Boulevard						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	394	2226	264	261	1255	62	236	379	315	503	749	336
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	394	2226	264	261	1255	62	236	379	315	503	749	336
Added Vol:	5	11	0	0	18	0	0	4	9	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	399	2237	264	261	1273	62	236	383	324	503	752	336
User Adj:	1.00	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	2237	264	261	1273	62	236	383	324	503	752	336
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	399	2237	264	261	1273	62	236	383	324	503	752	336
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	2237	264	261	1273	62	236	383	324	503	752	336
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.98	0.95	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	2.00	3.00	1.00	2.00	2.86	0.14	2.00	2.00	1.00	2.00	1.37	0.63
Final Sat.:	3150	5700	1750	3150	5340	260	3150	3800	1750	3150	2557	1142
Capacity Analysis Module:												
Vol/Sat:	0.13	0.39	0.15	0.08	0.24	0.24	0.07	0.10	0.19	0.16	0.29	0.29
Crit Moves:		****		****			****				****	
Green Time:	21.1	50.2	50.2	10.6	39.7	39.7	9.6	25.3	25.3	21.9	37.6	37.6
Volume/Cap:	0.72	0.94	0.36	0.94	0.72	0.72	0.94	0.48	0.88	0.88	0.94	0.94
Uniform Del:	46.7	33.4	23.9	54.4	35.3	35.3	54.9	41.5	45.8	47.8	40.1	40.1
IncremntDel:	7.9	8.7	1.4	40.2	2.5	2.5	42.8	2.0	24.1	17.0	15.2	15.2
InitQueuDel:	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:	54.6	42.1	25.3	94.6	37.7	37.7	97.7	43.5	69.9	64.8	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:	54.6	42.1	25.3	94.6	37.7	37.7	97.7	43.5	69.9	64.8	55.3	55.3
LOS by Move:	D-	D	C	F	D+	D+	F	D	E	E	E+	E+
HCM2kAvgQ:	244	771	178	226	390	390	210	162	389	347	612	612

Note: Queue reported is the distance per lane in feet.

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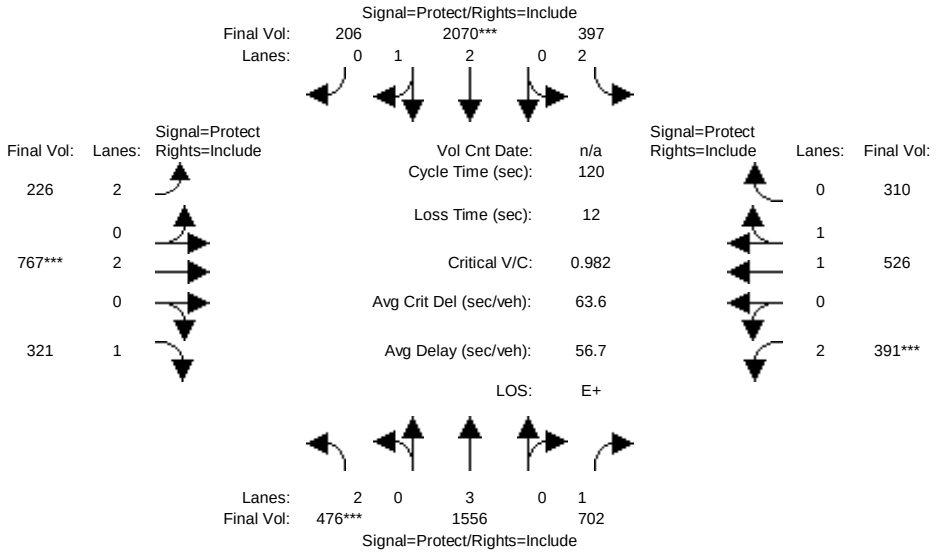
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #8: De Anza Boulevard/Homestead Road



Street Name:	De Anza Boulevard						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	443	1490	702	397	2009	206	226	752	291	391	510	310
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	443	1490	702	397	2009	206	226	752	291	391	510	310
Added Vol:	33	66	0	0	61	0	0	15	30	0	16	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	476	1556	702	397	2070	206	226	767	321	391	526	310
User Adj:	1.00	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:	476	1556	702	397	2070	206	226	767	321	391	526	310
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	476	1556	702	397	2070	206	226	767	321	391	526	310
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	476	1556	702	397	2070	206	226	767	321	391	526	310
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.99	0.95	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	2.00	3.00	1.00	2.00	2.72	0.28	2.00	2.00	1.00	2.00	1.24	0.76
Final Sat.:	3150	5700	1750	3150	5092	507	3150	3800	1750	3150	2327	1371
Capacity Analysis Module:												
Vol/Sat:	0.15	0.27	0.40	0.13	0.41	0.41	0.07	0.20	0.18	0.12	0.23	0.23
Crit Moves:	****				****			****			****	
Green Time:	18.5	51.9	51.9	16.3	49.7	49.7	9.6	24.7	24.7	15.2	30.2	30.2
Volume/Cap:	0.98	0.63	0.93	0.93	0.98	0.98	0.90	0.98	0.89	0.98	0.90	0.90
Uniform Del:	50.6	26.6	32.3	51.3	34.7	34.7	54.7	47.4	46.4	52.3	43.4	43.4
IncremntDel:	36.6	1.2	19.3	28.8	14.9	14.9	35.3	28.1	26.7	40.8	13.1	13.1
InitQueuDel:	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:	87.2	27.9	51.6	80.0	49.6	49.6	90.0	75.5	73.1	93.0	56.5	56.5
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:	87.2	27.9	51.6	80.0	49.6	49.6	90.0	75.5	73.1	93.0	56.5	56.5
LOS by Move:	F	C	D-	F	D	D	F	E-	E	F	E+	E+
HCM2kAvgQ:	380	379	771	308	860	860	194	480	394	325	467	467

Note: Queue reported is the distance per lane in feet.

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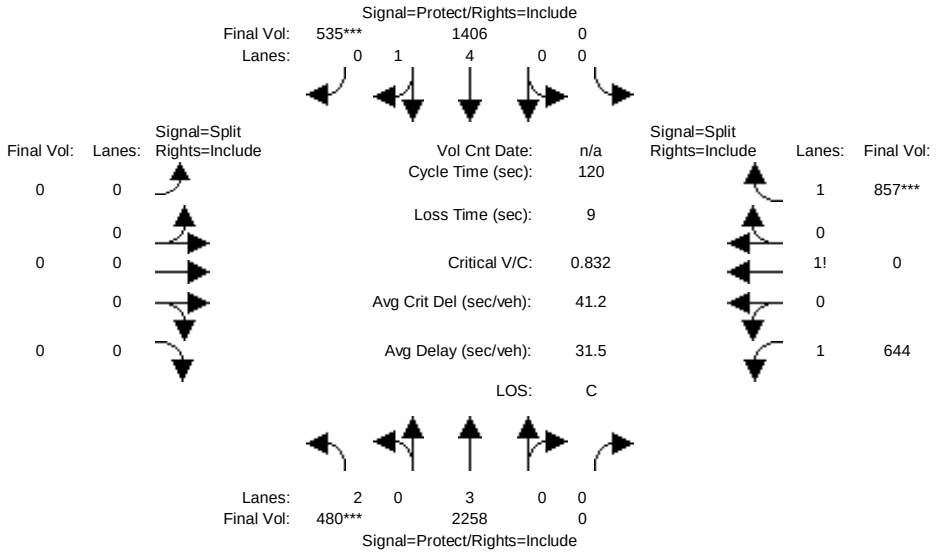
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #9: De Anza Boulevard/I-280 Ramps North



Street Name:	De Anza Boulevard						I-280 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	480	2242	0	0	1380	535	0	0	0	644	0	857
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	480	2242	0	0	1380	535	0	0	0	644	0	857
Added Vol:	0	16	0	0	26	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	480	2258	0	0	1406	535	0	0	0	644	0	857
User Adj:	1.00	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:	480	2258	0	0	1406	535	0	0	0	644	0	857
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	480	2258	0	0	1406	535	0	0	0	644	0	857
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	480	2258	0	0	1406	535	0	0	0	644	0	857
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	0.00	0.00	4.00	1.00	0.00	0.00	0.00	1.43	0.00	1.57
Final Sat.:	3150	5700	0	0	7600	1750	0	0	0	2501	0	2749
Capacity Analysis Module:												
Vol/Sat:	0.15	0.40	0.00	0.00	0.19	0.31	0.00	0.00	0.00	0.26	0.00	0.31
Crit Moves:	****					****						****
Green Time:	22.0	66.1	0.0	0.0	44.1	44.1	0.0	0.0	0.0	44.9	0.0	44.9
Volume/Cap:	0.83	0.72	0.00	0.00	0.50	0.83	0.00	0.00	0.00	0.69	0.00	0.83
Uniform Del:	47.2	20.1	0.0	0.0	29.5	34.6	0.0	0.0	0.0	31.6	0.0	34.1
IncremntDel:	13.2	1.5	0.0	0.0	0.5	3.7	0.0	0.0	0.0	1.8	0.0	4.7
InitQueuDel:	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	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	60.4	21.5	0.0	0.0	29.9	38.2	0.0	0.0	0.0	33.4	0.0	38.8
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:	60.4	21.5	0.0	0.0	29.9	38.2	0.0	0.0	0.0	33.4	0.0	38.8
LOS by Move:	E	C+	A	A	C	D+	A	A	A	C-	A	D+
HCM2kAvgQ:	261	502	0	0	252	539	0	0	0	395	0	547

Note: Queue reported is the distance per lane in feet.

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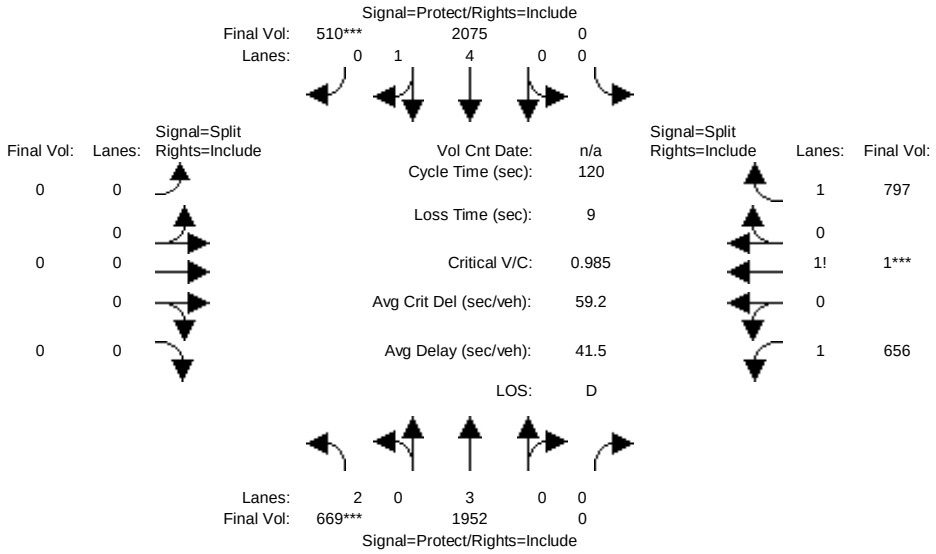
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #9: De Anza Boulevard/I-280 Ramps North



Street Name:	De Anza Boulevard						I-280 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	669	1853	0	0	1984	510	0	0	0	656	1	797
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	669	1853	0	0	1984	510	0	0	0	656	1	797
Added Vol:	0	99	0	0	91	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	669	1952	0	0	2075	510	0	0	0	656	1	797
User Adj:	1.00	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:	669	1952	0	0	2075	510	0	0	0	656	1	797
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	669	1952	0	0	2075	510	0	0	0	656	1	797
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	669	1952	0	0	2075	510	0	0	0	656	1	797
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.95	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	2.00	3.00	0.00	0.00	4.00	1.00	0.00	0.00	0.00	1.45	0.01	1.54
Final Sat.:	3150	5700	0	0	7599	1800	0	0	0	2539	2	2709
Capacity Analysis Module:												
Vol/Sat:	0.21	0.34	0.00	0.00	0.27	0.28	0.00	0.00	0.00	0.26	0.42	0.29
Crit Moves:	****					****					****	
Green Time:	25.9	60.4	0.0	0.0	34.5	34.5	0.0	0.0	0.0	50.6	50.6	50.6
Volume/Cap:	0.99	0.68	0.00	0.00	0.95	0.99	0.00	0.00	0.00	0.61	0.99	0.70
Uniform Del:	46.9	22.5	0.0	0.0	41.9	42.5	0.0	0.0	0.0	27.0	34.3	28.4
IncremntDel:	31.1	1.3	0.0	0.0	8.9	14.5	0.0	0.0	0.0	1.2	20.2	2.0
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	78.0	23.9	0.0	0.0	50.8	56.9	0.0	0.0	0.0	28.2	54.5	30.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	78.0	23.9	0.0	0.0	50.8	56.9	0.0	0.0	0.0	28.2	54.5	30.4
LOS by Move:	E-	C	A	A	D	E+	A	A	A	C	D-	C
HCM2kAvgQ:	472	471	0	0	587	639	0	0	0	357	882	435

Note: Queue reported is the distance per lane in feet.

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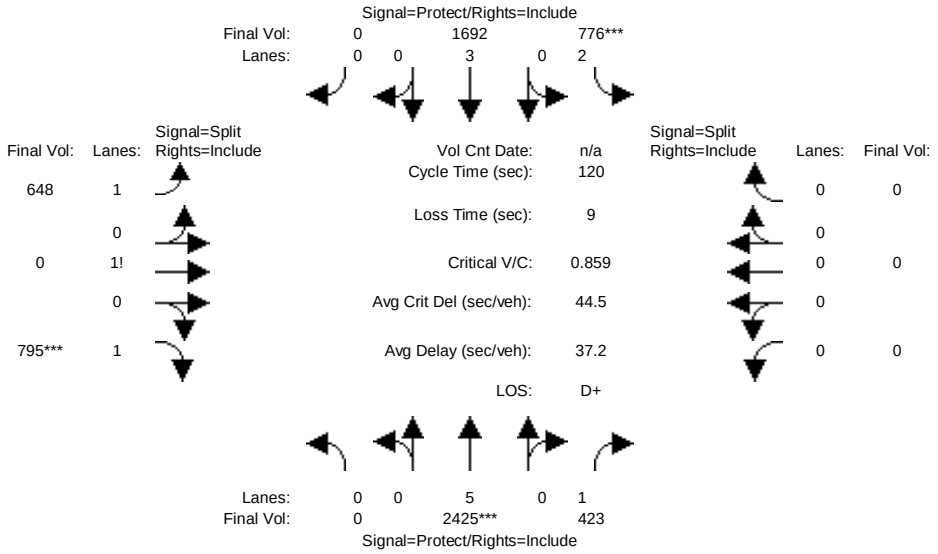
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #10: De Anza Boulevard/I-280 Ramps South



Street Name:	De Anza Boulevard						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	7	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	2409	423	776	1666	0	648	0	795	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2409	423	776	1666	0	648	0	795	0	0	0
Added Vol:	0	16	0	0	26	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2425	423	776	1692	0	648	0	795	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	2425	423	776	1692	0	648	0	795	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2425	423	776	1692	0	648	0	795	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	2425	423	776	1692	0	648	0	795	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	5.00	1.00	2.00	3.00	0.00	1.45	0.00	1.55	0.00	0.00	0.00
Final Sat.:	0	9500	1750	3150	5700	0	2536	0	2714	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.26	0.24	0.25	0.30	0.00	0.26	0.00	0.29	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green Time:	0.0	35.7	35.7	34.4	70.1	0.0	40.9	0.0	40.9	0.0	0.0	0.0
Volume/Cap:	0.00	0.86	0.81	0.86	0.51	0.00	0.75	0.00	0.86	0.00	0.00	0.00
Uniform Del:	0.0	39.8	39.1	40.5	14.8	0.0	35.0	0.0	36.8	0.0	0.0	0.0
IncremntDel:	0.0	3.7	13.1	10.4	0.6	0.0	2.7	0.0	6.0	0.0	0.0	0.0
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	43.5	52.1	50.9	15.3	0.0	37.7	0.0	42.8	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:	0.0	43.5	52.1	50.9	15.3	0.0	37.7	0.0	42.8	0.0	0.0	0.0
LOS by Move:	A	D	D-	D	B	A	D+	A	D	A	A	A
HCM2kAvgQ:	0	488	441	456	311	0	424	0	542	0	0	0

Note: Queue reported is the distance per lane in feet.

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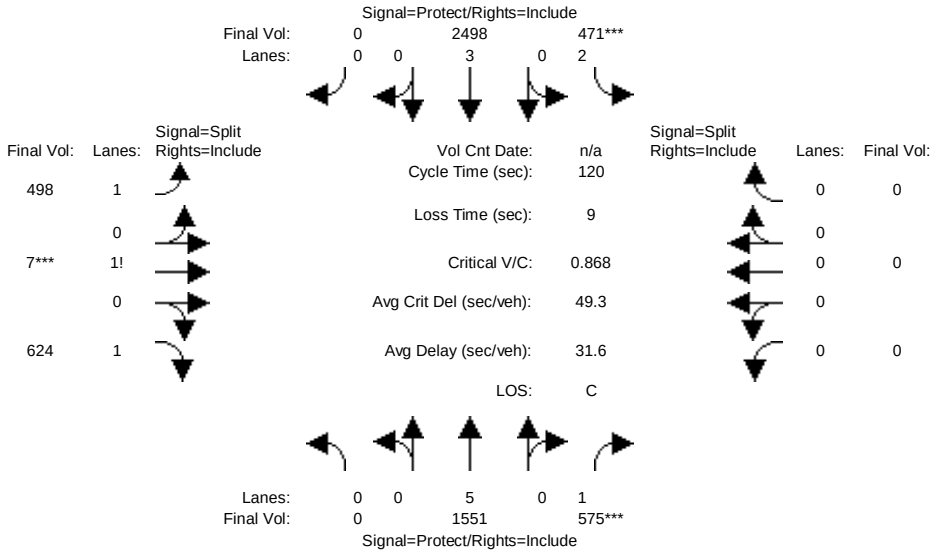
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #10: De Anza Boulevard/I-280 Ramps South



Street Name:	De Anza Boulevard						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	7	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1452	575	471	2407	0	498	7	624	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1452	575	471	2407	0	498	7	624	0	0	0
Added Vol:	0	99	0	0	91	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1551	575	471	2498	0	498	7	624	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	1551	575	471	2498	0	498	7	624	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1551	575	471	2498	0	498	7	624	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	1551	575	471	2498	0	498	7	624	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92
Lanes:	0.00	5.00	1.00	2.00	3.00	0.00	1.44	0.01	1.55	0.00	0.00	0.00
Final Sat.:	0	9500	1750	3150	5700	0	2517	22	2711	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.16	0.33	0.15	0.44	0.00	0.20	0.32	0.23	0.00	0.00	0.00
Crit Moves:			****	****				****				
Green Time:	0.0	45.4	45.4	20.7	66.1	0.0	44.9	44.9	44.9	0.0	0.0	0.0
Volume/Cap:	0.00	0.43	0.87	0.87	0.80	0.00	0.53	0.87	0.62	0.00	0.00	0.00
Uniform Del:	0.0	27.7	34.5	48.3	21.5	0.0	29.3	34.8	30.5	0.0	0.0	0.0
IncremntDel:	0.0	0.4	14.4	16.9	2.2	0.0	0.9	8.0	1.6	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	28.1	48.9	65.3	23.7	0.0	30.3	42.8	32.1	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	28.1	48.9	65.3	23.7	0.0	30.3	42.8	32.1	0.0	0.0	0.0
LOS by Move:	A	C	D	E	C	A	C	D	C-	A	A	A
HCM2kAvgQ:	0	211	599	249	583	0	272	594	335	0	0	0

Note: Queue reported is the distance per lane in feet.

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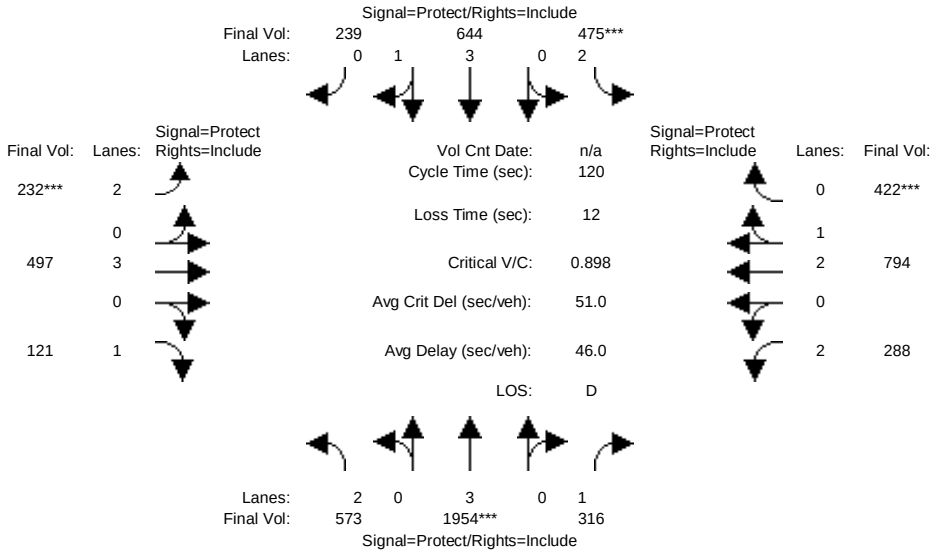
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #11: De Anza Boulevard/Stevens Creek Boulevard



Street Name:	De Anza Boulevard						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	573	1954	312	440	644	239	232	471	121	285	778	400
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	573	1954	312	440	644	239	232	471	121	285	778	400
Added Vol:	0	0	4	35	0	0	0	26	0	3	16	22
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	573	1954	316	475	644	239	232	497	121	288	794	422
User Adj:	1.00	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:	573	1954	316	475	644	239	232	497	121	288	794	422
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	573	1954	316	475	644	239	232	497	121	288	794	422
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	573	1954	316	475	644	239	232	497	121	288	794	422
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	5700	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.18	0.34	0.18	0.15	0.11	0.14	0.07	0.09	0.07	0.09	0.21	0.24
Crit Moves:		****		****			****					****
Green Time:	37.7	45.8	45.8	20.1	28.3	28.3	9.8	20.5	20.5	21.5	32.2	32.2
Volume/Cap:	0.58	0.90	0.47	0.90	0.48	0.58	0.90	0.51	0.40	0.51	0.78	0.90
Uniform Del:	34.5	34.9	28.0	48.9	39.5	40.6	54.6	45.2	44.3	44.5	40.6	42.3
IncremntDel:	2.5	6.4	2.4	20.7	0.9	1.6	34.9	1.9	4.0	3.3	3.9	9.7
InitQueuDel:	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:	37.0	41.3	30.4	69.6	40.4	42.2	89.5	47.1	48.3	47.7	44.5	52.0
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:	37.0	41.3	30.4	69.6	40.4	42.2	89.5	47.1	48.3	47.7	44.5	52.0
LOS by Move:	D+	D	C	E	D	D	F	D	D	D	D	D-
HCM2kAvgQ:	275	649	238	341	176	224	198	150	114	156	379	493

Note: Queue reported is the distance per lane in feet.

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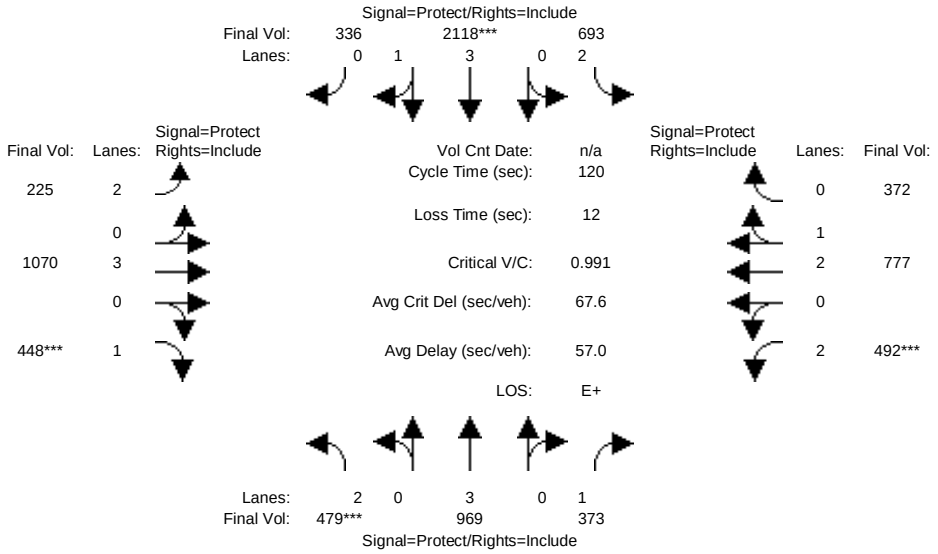
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #11: De Anza Boulevard/Stevens Creek Boulevard



Street Name:	De Anza Boulevard						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	479	969	358	571	2118	336	225	979	448	476	678	240
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	479	969	358	571	2118	336	225	979	448	476	678	240
Added Vol:	0	0	15	122	0	0	0	91	0	16	99	132
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	479	969	373	693	2118	336	225	1070	448	492	777	372
User Adj:	1.00	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:	479	969	373	693	2118	336	225	1070	448	492	777	372
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	479	969	373	693	2118	336	225	1070	448	492	777	372
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	479	969	373	693	2118	336	225	1070	448	492	777	372
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.99	0.95	0.83	1.00	0.92	0.83	1.00	0.95
Lanes:	2.00	3.00	1.00	2.00	3.43	0.57	2.00	3.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	6471	1027	3150	5700	1750	3150	3797	1800
Capacity Analysis Module:												
Vol/Sat:	0.15	0.17	0.21	0.22	0.33	0.33	0.07	0.19	0.26	0.16	0.20	0.21
Crit Moves:	****				****				****	****		
Green Time:	18.4	28.6	28.6	29.5	39.6	39.6	12.8	31.0	31.0	18.9	37.1	37.1
Volume/Cap:	0.99	0.71	0.90	0.90	0.99	0.99	0.67	0.73	0.99	0.99	0.66	0.67
Uniform Del:	50.7	42.0	44.3	43.8	40.0	40.0	51.5	40.6	44.3	50.5	36.0	36.1
IncremntDel:	38.7	3.2	24.3	15.0	16.0	16.0	10.1	3.2	40.1	38.1	2.0	2.1
InitQueuDel:	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:	89.4	45.2	68.6	58.8	56.0	56.0	61.6	43.8	84.4	88.6	38.0	38.2
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:	89.4	45.2	68.6	58.8	56.0	56.0	61.6	43.8	84.4	88.6	38.0	38.2
LOS by Move:	F	D	E	E+	E+	E+	E	D	F	F	D+	D+
HCM2kAvgQ:	386	302	445	457	727	727	151	330	592	395	327	332

Note: Queue reported is the distance per lane in feet.

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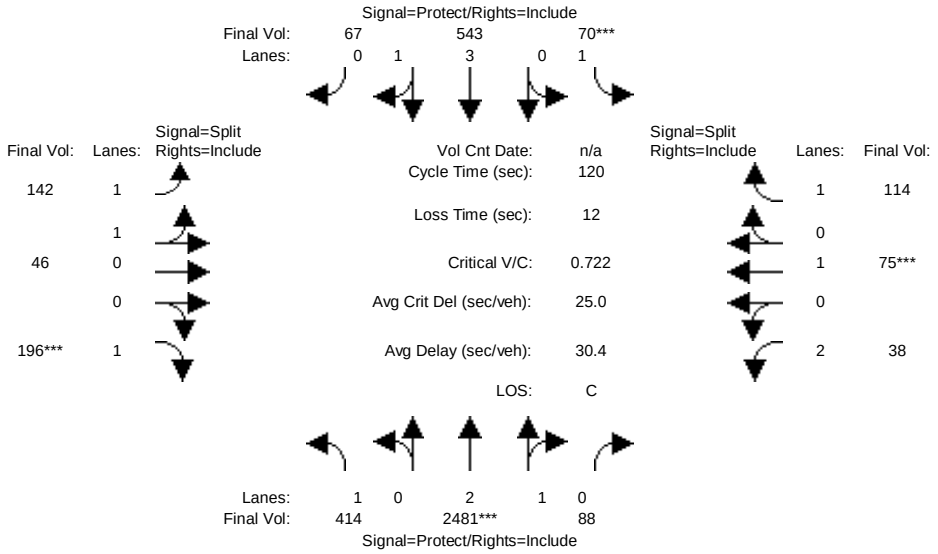
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #12: De Anza Boulevard/McClellan Road



Street Name:	De Anza Boulevard						McClellan Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	414	2477	88	70	540	67	142	46	196	38	75	114
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	414	2477	88	70	540	67	142	46	196	38	75	114
Added Vol:	0	4	0	0	3	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	414	2481	88	70	543	67	142	46	196	38	75	114
User Adj:	1.00	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:	414	2481	88	70	543	67	142	46	196	38	75	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	414	2481	88	70	543	67	142	46	196	38	75	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	414	2481	88	70	543	67	142	46	196	38	75	114
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.99	0.95	0.93	0.95	0.92	0.83	1.00	0.92
Lanes:	1.00	2.89	0.11	1.00	3.54	0.46	1.52	0.48	1.00	2.00	1.00	1.00
Final Sat.:	1750	5408	192	1750	6675	824	2681	869	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.24	0.46	0.46	0.04	0.08	0.08	0.05	0.05	0.11	0.01	0.04	0.07
Crit Moves:		****		****					****		****	
Green Time:	58.8	72.5	72.5	7.0	20.7	20.7	17.7	17.7	17.7	10.8	10.8	10.8
Volume/Cap:	0.48	0.76	0.76	0.69	0.47	0.47	0.36	0.36	0.76	0.13	0.44	0.72
Uniform Del:	20.5	17.4	17.4	55.4	44.7	44.7	46.0	46.0	49.1	50.3	51.7	53.1
IncremntDel:	1.9	1.7	1.7	31.5	1.2	1.2	1.9	1.9	18.8	1.0	7.9	24.8
InitQueuDel:	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:	22.4	19.0	19.0	86.9	46.0	46.0	48.0	48.0	67.9	51.3	59.6	77.9
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:	22.4	19.0	19.0	86.9	46.0	46.0	48.0	48.0	67.9	51.3	59.6	77.9
LOS by Move:	C+	B-	B-	F	D	D	D	D	E	D-	E+	E-
HCM2kAvgQ:	273	604	604	102	137	137	89	89	231	21	78	149

Note: Queue reported is the distance per lane in feet.

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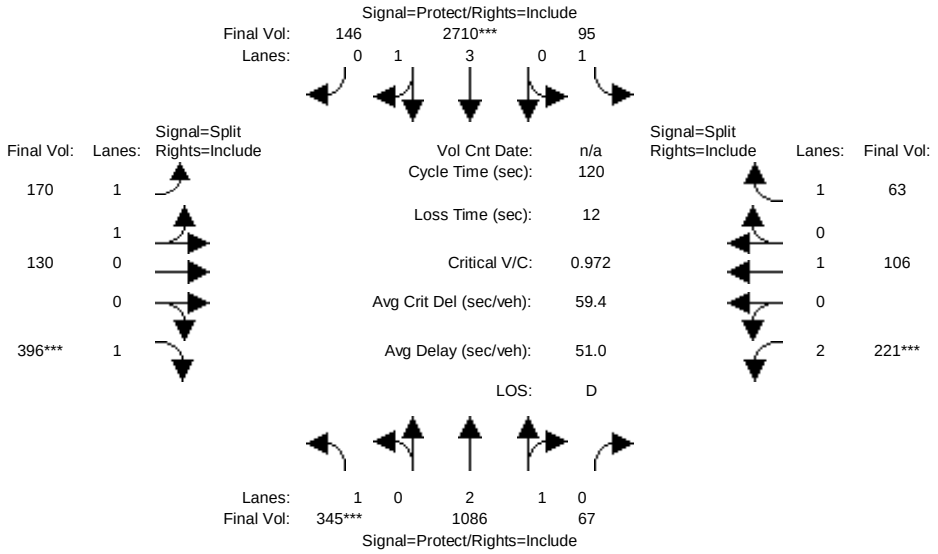
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #12: De Anza Boulevard/McClellan Road



Street Name:	De Anza Boulevard						McClellan Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	345	1071	67	95	2694	146	170	130	396	221	106	63
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	345	1071	67	95	2694	146	170	130	396	221	106	63
Added Vol:	0	15	0	0	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	345	1086	67	95	2710	146	170	130	396	221	106	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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:	345	1086	67	95	2710	146	170	130	396	221	106	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	345	1086	67	95	2710	146	170	130	396	221	106	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	345	1086	67	95	2710	146	170	130	396	221	106	63
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.99	0.95	0.92	0.95	0.92	0.83	1.00	0.92
Lanes:	1.00	2.82	0.18	1.00	3.79	0.21	1.15	0.85	1.00	2.00	1.00	1.00
Final Sat.:	1750	5274	325	1750	7116	383	2011	1538	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.20	0.21	0.21	0.05	0.38	0.38	0.08	0.08	0.23	0.07	0.06	0.04
Crit Moves:	****				****				****	****		
Green Time:	24.0	54.9	54.9	15.5	46.4	46.4	27.6	27.6	27.6	10.0	10.0	10.0
Volume/Cap:	0.98	0.45	0.45	0.42	0.98	0.98	0.37	0.37	0.98	0.84	0.67	0.43
Uniform Del:	47.8	22.3	22.3	48.1	36.4	36.4	38.9	38.9	46.0	54.2	53.4	52.3
IncremntDel:	44.4	0.6	0.6	5.6	13.5	13.5	1.3	1.3	41.3	26.6	20.3	9.1
InitQueuDel:	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:	92.2	22.8	22.8	53.7	50.0	50.0	40.2	40.2	87.3	80.8	73.7	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:	92.2	22.8	22.8	53.7	50.0	50.0	40.2	40.2	87.3	80.8	73.7	61.4
LOS by Move:	F	C+	C+	D-	D	D	D	D	F	F	E	E
HCM2kAvgQ:	473	243	243	96	818	818	127	127	530	180	126	72

Note: Queue reported is the distance per lane in feet.

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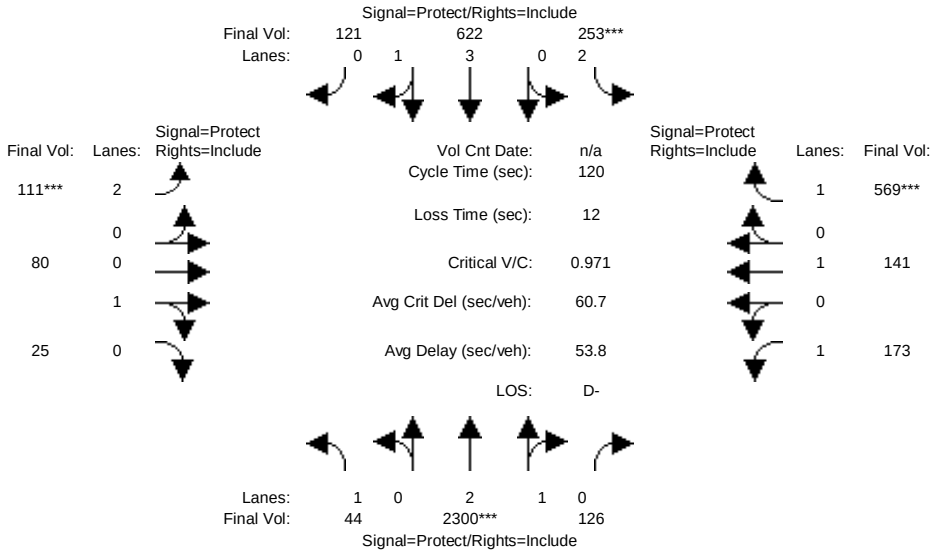
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #13: De Anza Boulevard/Bollinger Road



Street Name:	De Anza Boulevard						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	44	2296	126	253	619	121	111	80	25	173	141	569
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	44	2296	126	253	619	121	111	80	25	173	141	569
Added Vol:	0	4	0	0	3	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	2300	126	253	622	121	111	80	25	173	141	569
User Adj:	1.00	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:	44	2300	126	253	622	121	111	80	25	173	141	569
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	2300	126	253	622	121	111	80	25	173	141	569
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	44	2300	126	253	622	121	111	80	25	173	141	569
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.83	0.99	0.95	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	2.84	0.16	2.00	3.32	0.68	2.00	0.76	0.24	1.00	1.00	1.00
Final Sat.:	1750	5309	291	3150	6277	1221	3150	1371	429	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.43	0.43	0.08	0.10	0.10	0.04	0.06	0.06	0.10	0.07	0.33
Crit Moves:		****		****			****					****
Green Time:	22.9	52.2	52.2	9.7	38.9	38.9	7.0	21.1	21.1	25.0	39.2	39.2
Volume/Cap:	0.13	1.00	1.00	1.00	0.31	0.31	0.60	0.33	0.33	0.47	0.23	1.00
Uniform Del:	40.3	33.8	33.8	55.1	30.4	30.4	55.1	43.3	43.3	41.7	29.4	40.4
IncremntDel:	0.8	17.4	17.4	55.6	0.3	0.3	13.9	2.8	2.8	4.4	0.9	36.8
InitQueuDel:	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:	41.1	51.3	51.3	110.7	30.7	30.7	69.0	46.1	46.1	46.0	30.3	77.2
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:	41.1	51.3	51.3	110.7	30.7	30.7	69.0	46.1	46.1	46.0	30.3	77.2
LOS by Move:	D	D-	D-	F	C	C	E	D	D	D	C	E-
HCM2kAvgQ:	37	933	933	235	129	129	86	93	93	159	93	730

Note: Queue reported is the distance per lane in feet.

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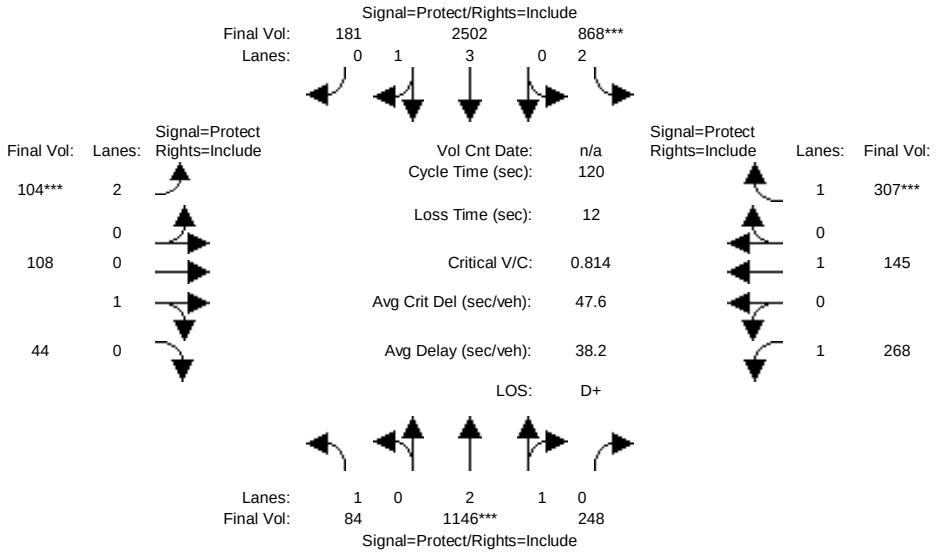
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #13: De Anza Boulevard/Bollinger Road



Street Name:	De Anza Boulevard						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	84	1131	248	868	2486	181	104	108	44	268	145	307
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	84	1131	248	868	2486	181	104	108	44	268	145	307
Added Vol:	0	15	0	0	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	84	1146	248	868	2502	181	104	108	44	268	145	307
User Adj:	1.00	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:	84	1146	248	868	2502	181	104	108	44	268	145	307
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	1146	248	868	2502	181	104	108	44	268	145	307
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	84	1146	248	868	2502	181	104	108	44	268	145	307
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	0.99	0.95	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	2.45	0.55	2.00	3.72	0.28	2.00	0.71	0.29	1.00	1.00	1.00
Final Sat.:	1750	4602	996	3150	6993	506	3150	1279	521	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.25	0.25	0.28	0.36	0.36	0.03	0.08	0.08	0.15	0.08	0.18
Crit Moves:		****		****			****					****
Green Time:	10.6	35.9	35.9	39.8	65.1	65.1	7.0	11.5	11.5	20.8	25.3	25.3
Volume/Cap:	0.54	0.83	0.83	0.83	0.66	0.66	0.57	0.88	0.88	0.88	0.36	0.83
Uniform Del:	52.4	39.2	39.2	37.0	19.6	19.6	55.0	53.6	53.6	48.4	40.4	45.3
IncremntDel:	13.0	5.0	5.0	7.7	0.9	0.9	12.0	43.2	43.2	28.8	2.5	19.2
InitQueuDel:	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:	65.4	44.2	44.2	44.8	20.4	20.4	67.1	96.8	96.8	77.2	43.0	64.5
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:	65.4	44.2	44.2	44.8	20.4	20.4	67.1	96.8	96.8	77.2	43.0	64.5
LOS by Move:	E	D	D	D	C+	C+	E	F	F	E-	D	E
HCM2kAvgQ:	99	462	462	499	450	450	78	215	215	339	117	353

Note: Queue reported is the distance per lane in feet.

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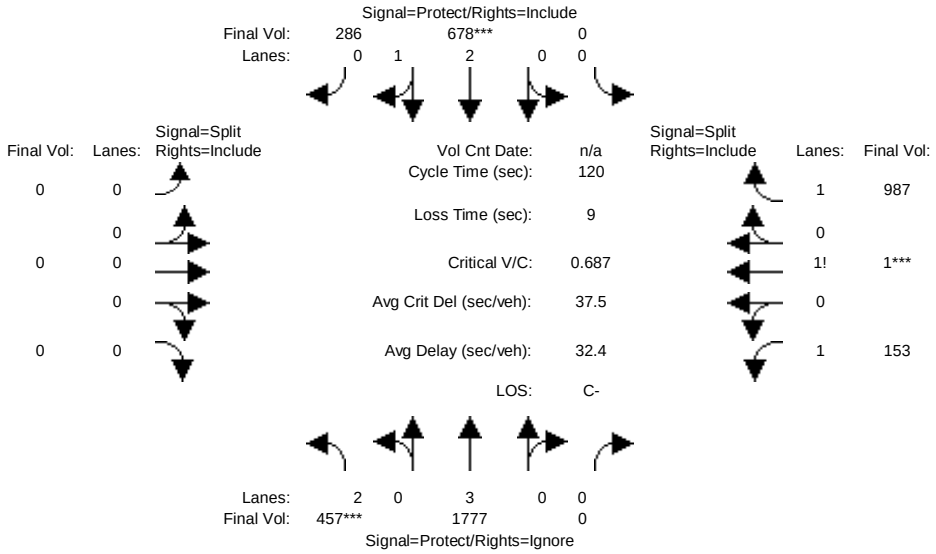
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #14: De Anza Boulevard/SR 85 Ramps North



Street Name:	De Anza Boulevard						SR 85 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	457	1773	0	0	675	286	0	0	0	153	1	987
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	457	1773	0	0	675	286	0	0	0	153	1	987
Added Vol:	0	4	0	0	3	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	457	1777	0	0	678	286	0	0	0	153	1	987
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	457	1777	0	0	678	286	0	0	0	153	1	987
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	457	1777	0	0	678	286	0	0	0	153	1	987
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	457	1777	0	0	678	286	0	0	0	153	1	987
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.95	0.92	1.00	0.92	0.92	0.95	0.95
Lanes:	2.00	3.00	0.00	0.00	2.08	0.92	0.00	0.00	0.00	1.13	0.01	1.86
Final Sat.:	3150	5700	0	0	3936	1660	0	0	0	1990	3	3350
Capacity Analysis Module:												
Vol/Sat:	0.15	0.31	0.00	0.00	0.17	0.17	0.00	0.00	0.00	0.08	0.32	0.29
Crit Moves:	****				****						****	
Green Time:	25.3	55.4	0.0	0.0	30.1	30.1	0.0	0.0	0.0	55.6	55.6	55.6
Volume/Cap:	0.69	0.68	0.00	0.00	0.69	0.69	0.00	0.00	0.00	0.17	0.69	0.64
Uniform Del:	43.7	25.3	0.0	0.0	40.7	40.7	0.0	0.0	0.0	18.7	25.4	24.5
IncremntDel:	5.7	1.4	0.0	0.0	2.8	2.8	0.0	0.0	0.0	0.1	2.3	1.7
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	49.4	26.7	0.0	0.0	43.5	43.5	0.0	0.0	0.0	18.8	27.7	26.2
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:	49.4	26.7	0.0	0.0	43.5	43.5	0.0	0.0	0.0	18.8	27.7	26.2
LOS by Move:	D	C	A	A	D	D	A	A	A	B-	C	C
HCM2kAvgQ:	237	428	0	0	297	297	0	0	0	76	449	397

Note: Queue reported is the distance per lane in feet.

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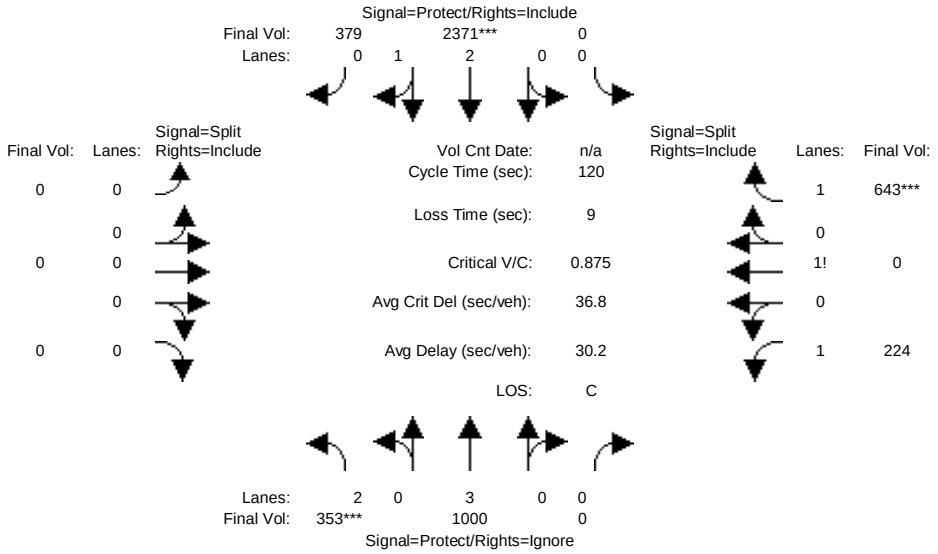
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #14: De Anza Boulevard/SR 85 Ramps North



Street Name:	De Anza Boulevard						SR 85 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	353	985	0	0	2355	379	0	0	0	224	0	643
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	353	985	0	0	2355	379	0	0	0	224	0	643
Added Vol:	0	15	0	0	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	353	1000	0	0	2371	379	0	0	0	224	0	643
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	353	1000	0	0	2371	379	0	0	0	224	0	643
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	353	1000	0	0	2371	379	0	0	0	224	0	643
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	353	1000	0	0	2371	379	0	0	0	224	0	643
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.95
Lanes:	2.00	3.00	0.00	0.00	2.57	0.43	0.00	0.00	0.00	1.26	0.00	1.74
Final Sat.:	3150	5700	0	0	4827	772	0	0	0	2212	0	3125
Capacity Analysis Module:												
Vol/Sat:	0.11	0.18	0.00	0.00	0.49	0.49	0.00	0.00	0.00	0.10	0.00	0.21
Crit Moves:	****				****							****
Green Time:	15.4	82.8	0.0	0.0	67.4	67.4	0.0	0.0	0.0	28.2	0.0	28.2
Volume/Cap:	0.87	0.25	0.00	0.00	0.87	0.87	0.00	0.00	0.00	0.43	0.00	0.87
Uniform Del:	51.4	7.0	0.0	0.0	22.7	22.7	0.0	0.0	0.0	39.0	0.0	44.2
IncremntDel:	22.3	0.2	0.0	0.0	3.7	3.7	0.0	0.0	0.0	0.7	0.0	10.7
InitQueuDel:	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	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	73.7	7.2	0.0	0.0	26.4	26.4	0.0	0.0	0.0	39.7	0.0	54.8
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:	73.7	7.2	0.0	0.0	26.4	26.4	0.0	0.0	0.0	39.7	0.0	54.8
LOS by Move:	E	A	A	A	C	C	A	A	A	D	A	D-
HCM2kAvgQ:	213	113	0	0	802	802	0	0	0	155	0	422

Note: Queue reported is the distance per lane in feet.

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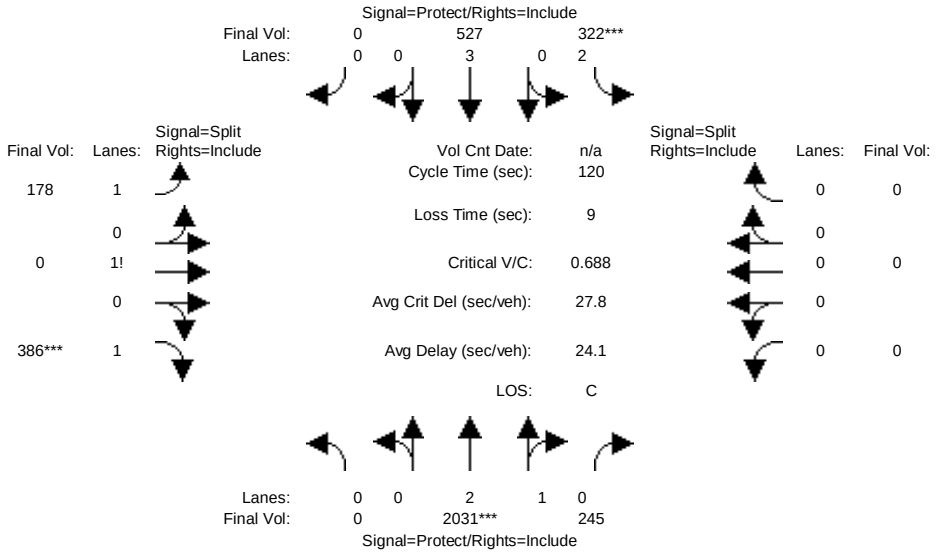
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #15: De Anza Boulevard/SR 85 Ramps South



Street Name:	De Anza Boulevard						SR 85 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	2027	245	322	524	0	178	0	386	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2027	245	322	524	0	178	0	386	0	0	0
Added Vol:	0	4	0	0	3	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2031	245	322	527	0	178	0	386	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	2031	245	322	527	0	178	0	386	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2031	245	322	527	0	178	0	386	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	2031	245	322	527	0	178	0	386	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.92	1.00	0.95	0.92	1.00	0.92
Lanes:	0.00	2.67	0.33	2.00	3.00	0.00	1.32	0.00	1.68	0.00	0.00	0.00
Final Sat.:	0	4996	603	3150	5700	0	2313	0	3021	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.41	0.41	0.10	0.09	0.00	0.08	0.00	0.13	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green Time:	0.0	70.9	70.9	17.8	88.7	0.0	22.3	0.0	22.3	0.0	0.0	0.0
Volume/Cap:	0.00	0.69	0.69	0.69	0.13	0.00	0.41	0.00	0.69	0.00	0.00	0.00
Uniform Del:	0.0	16.9	16.9	48.4	4.5	0.0	43.1	0.0	45.6	0.0	0.0	0.0
IncremntDel:	0.0	1.2	1.2	8.0	0.1	0.0	0.9	0.0	4.7	0.0	0.0	0.0
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	18.1	18.1	56.5	4.6	0.0	44.0	0.0	50.3	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:	0.0	18.1	18.1	56.5	4.6	0.0	44.0	0.0	50.3	0.0	0.0	0.0
LOS by Move:	A	B-	B-	E+	A	A	D	A	D	A	A	A
HCM2kAvgQ:	0	496	496	173	46	0	125	0	237	0	0	0

Note: Queue reported is the distance per lane in feet.

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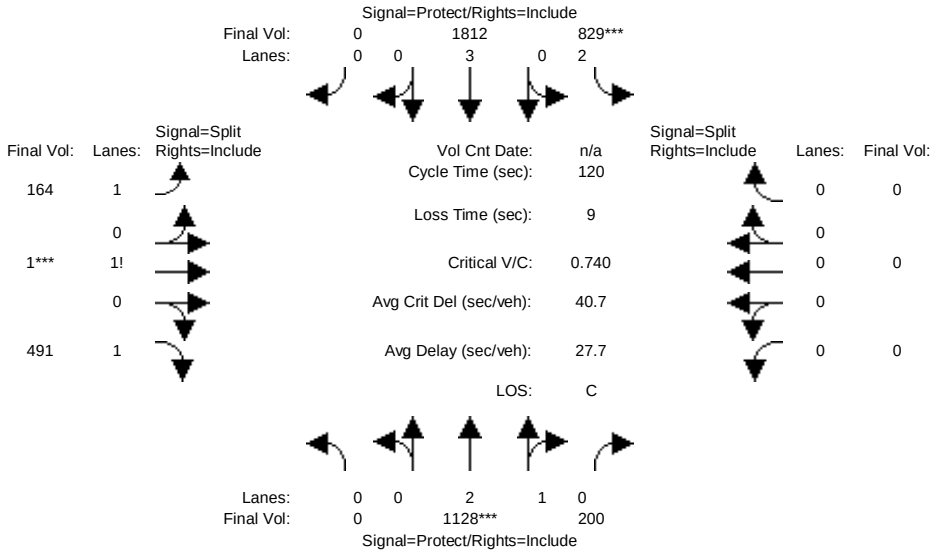
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #15: De Anza Boulevard/SR 85 Ramps South



Street Name:	De Anza Boulevard						SR 85 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1113	200	829	1796	0	164	1	491	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1113	200	829	1796	0	164	1	491	0	0	0
Added Vol:	0	15	0	0	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1128	200	829	1812	0	164	1	491	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	1128	200	829	1812	0	164	1	491	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1128	200	829	1812	0	164	1	491	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	1128	200	829	1812	0	164	1	491	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	0.00	2.53	0.47	2.00	3.00	0.00	1.25	0.01	1.74	0.00	0.00	0.00
Final Sat.:	0	4756	843	3150	5700	0	2196	5	3136	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.24	0.24	0.26	0.32	0.00	0.07	0.18	0.16	0.00	0.00	0.00
Crit Moves:		****		****				****				
Green Time:	0.0	38.5	38.5	42.7	81.2	0.0	29.8	29.8	29.8	0.0	0.0	0.0
Volume/Cap:	0.00	0.74	0.74	0.74	0.47	0.00	0.30	0.74	0.63	0.00	0.00	0.00
Uniform Del:	0.0	36.3	36.3	33.8	9.2	0.0	36.6	41.5	40.2	0.0	0.0	0.0
IncremntDel:	0.0	2.8	2.8	4.4	0.4	0.0	0.4	5.5	2.9	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	39.1	39.1	38.2	9.6	0.0	37.0	47.0	43.1	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	39.1	39.1	38.2	9.6	0.0	37.0	47.0	43.1	0.0	0.0	0.0
LOS by Move:	A	D	D	D+	A	A	D+	D	D	A	A	A
HCM2kAvgQ:	0	397	397	391	252	0	107	329	261	0	0	0

Note: Queue reported is the distance per lane in feet.

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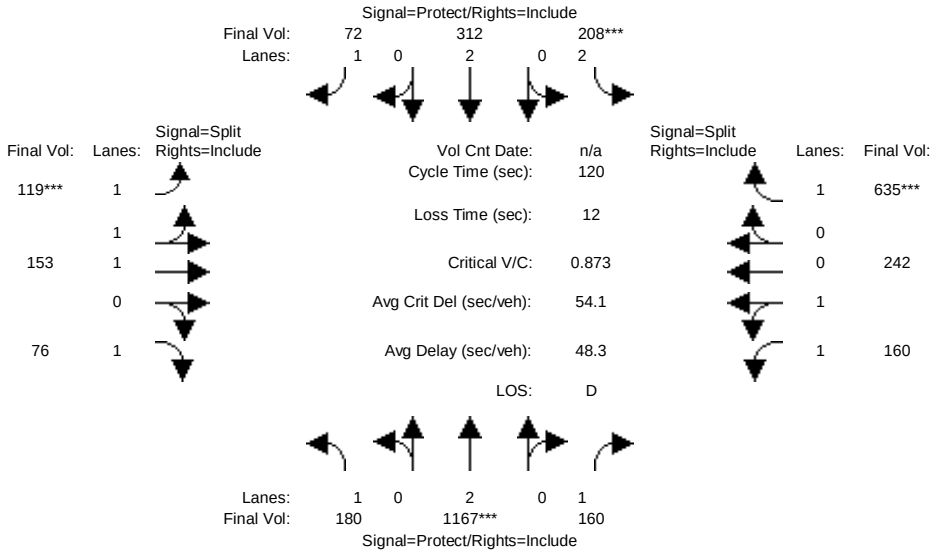
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #16: Saratoga Sunnyvale Road/Prospect Road



Street Name:	Saratoga Sunnyvale Road						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	180	1163	160	208	309	72	119	149	76	160	239	635
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	180	1163	160	208	309	72	119	149	76	160	239	635
Added Vol:	0	4	0	0	3	0	0	4	0	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	180	1167	160	208	312	72	119	153	76	160	242	635
User Adj:	1.00	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:	180	1167	160	208	312	72	119	153	76	160	242	635
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	180	1167	160	208	312	72	119	153	76	160	242	635
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	180	1167	160	208	312	72	119	153	76	160	242	635
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.93	0.98	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.35	1.65	1.00	1.00	1.00	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	2383	3063	1750	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.31	0.09	0.07	0.08	0.04	0.05	0.05	0.04	0.09	0.13	0.36
Crit Moves:		****		****			****					****
Green Time:	27.4	40.9	40.9	8.8	22.2	22.2	10.0	10.0	10.0	48.3	48.3	48.3
Volume/Cap:	0.45	0.90	0.27	0.90	0.44	0.22	0.60	0.60	0.52	0.23	0.32	0.90
Uniform Del:	39.8	37.6	28.7	55.2	43.4	41.5	53.1	53.1	52.7	23.6	24.5	33.6
IncremntDel:	3.6	10.3	1.1	38.2	2.0	1.6	5.7	5.7	12.7	0.3	0.7	16.9
InitQueuDel:	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:	43.4	47.9	29.8	93.4	45.4	43.1	58.8	58.8	65.4	23.9	25.2	50.5
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:	43.4	47.9	29.8	93.4	45.4	43.1	58.8	58.8	65.4	23.9	25.2	50.5
LOS by Move:	D	D	C	F	D	D	E+	E+	E	C	C	D
HCM2kAvgQ:	160	598	114	184	135	62	108	108	91	102	150	681

Note: Queue reported is the distance per lane in feet.

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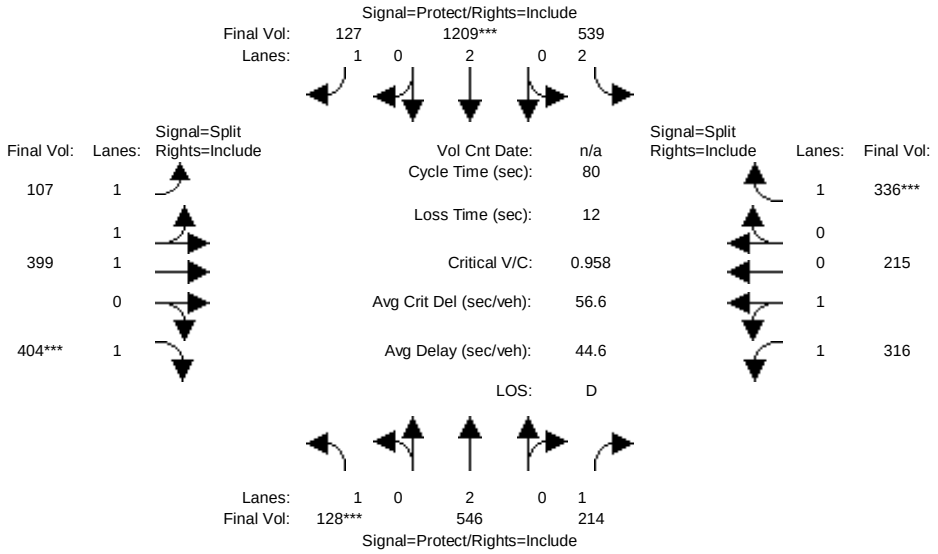
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #16: Saratoga Sunnyvale Road/Prospect Road



Street Name:	Saratoga Sunnyvale Road						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	128	531	214	539	1193	127	107	384	404	316	199	336
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	128	531	214	539	1193	127	107	384	404	316	199	336
Added Vol:	0	15	0	0	16	0	0	15	0	0	16	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	128	546	214	539	1209	127	107	399	404	316	215	336
User Adj:	1.00	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:	128	546	214	539	1209	127	107	399	404	316	215	336
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	128	546	214	539	1209	127	107	399	404	316	215	336
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	128	546	214	539	1209	127	107	399	404	316	215	336
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00	1.20	0.80	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	1750	3800	1750	2112	1437	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.14	0.12	0.17	0.32	0.07	0.06	0.11	0.23	0.15	0.15	0.19
Crit Moves:	****				****				****			****
Green Time:	7.0	15.1	15.1	18.0	26.2	26.2	19.0	19.0	19.0	15.8	15.8	15.8
Volume/Cap:	0.84	0.76	0.65	0.76	0.97	0.22	0.26	0.44	0.97	0.76	0.76	0.97
Uniform Del:	35.9	30.7	29.9	28.9	26.5	19.5	24.8	26.0	30.2	30.3	30.3	31.9
IncremntDel:	39.1	7.4	9.4	7.5	19.6	0.9	0.3	1.2	37.6	7.5	7.5	41.8
InitQueuDel:	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:	75.1	38.1	39.3	36.4	46.1	20.4	25.1	27.2	67.9	37.8	37.8	73.7
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:	75.1	38.1	39.3	36.4	46.1	20.4	25.1	27.2	67.9	37.8	37.8	73.7
LOS by Move:	E-	D+	D	D+	D	C+	C	C	E	D+	D+	E
HCM2kAvgQ:	146	207	161	234	523	63	61	114	408	213	213	354

Note: Queue reported is the distance per lane in feet.

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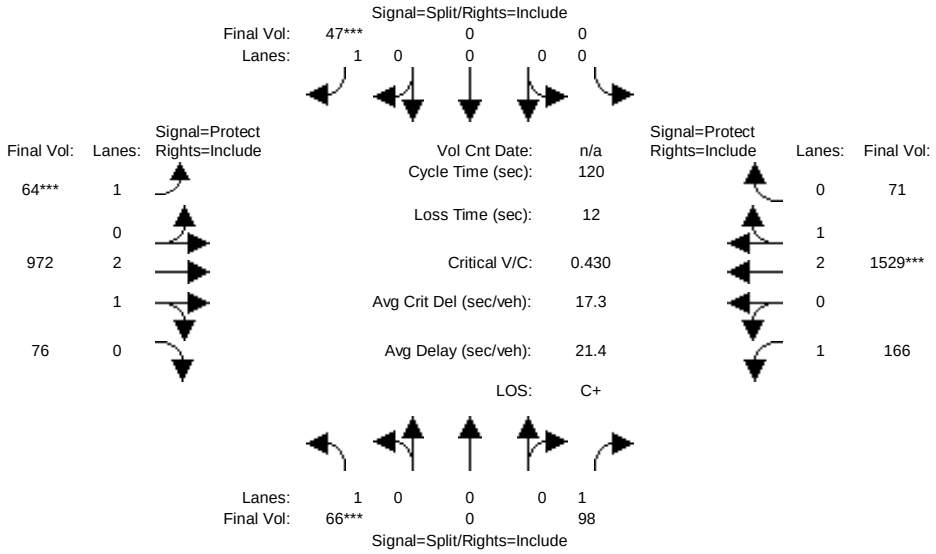
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #17: Stevens Creek Boulevard/Torre Avenue



Street Name:	Torre Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	66	0	98	0	0	47	64	904	76	166	1487	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	66	0	98	0	0	47	64	904	76	166	1487	71
Added Vol:	0	0	0	0	0	0	0	68	0	0	42	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	66	0	98	0	0	47	64	972	76	166	1529	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:	66	0	98	0	0	47	64	972	76	166	1529	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	0	98	0	0	47	64	972	76	166	1529	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:	66	0	98	0	0	47	64	972	76	166	1529	71
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.99	0.95	0.92	0.98	0.95
Lanes:	1.00	0.00	1.00	0.00	0.00	1.00	1.00	2.77	0.23	1.00	2.86	0.14
Final Sat.:	1750	0	1750	0	0	1750	1750	5193	406	1750	5351	248
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.06	0.00	0.00	0.03	0.04	0.19	0.19	0.09	0.29	0.29
Crit Moves:	****					****	****				****	
Green Time:	14.5	0.0	14.5	0.0	0.0	10.0	9.5	55.4	55.4	28.1	74.0	74.0
Volume/Cap:	0.31	0.00	0.46	0.00	0.00	0.32	0.46	0.41	0.41	0.41	0.46	0.46
Uniform Del:	48.2	0.0	49.1	0.0	0.0	51.8	52.8	21.4	21.4	38.9	12.3	12.3
IncremntDel:	3.8	0.0	7.1	0.0	0.0	5.8	10.8	0.5	0.5	3.0	0.4	0.4
InitQueuDel:	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	52.0	0.0	56.3	0.0	0.0	57.6	63.6	21.9	21.9	41.9	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:	52.0	0.0	56.3	0.0	0.0	57.6	63.6	21.9	21.9	41.9	12.8	12.8
LOS by Move:	D-	A	E+	A	A	E+	E	C+	C+	D	B	B
HCM2kAvgQ:	66	0	103	0	0	52	75	213	213	144	264	264

Note: Queue reported is the distance per lane in feet.

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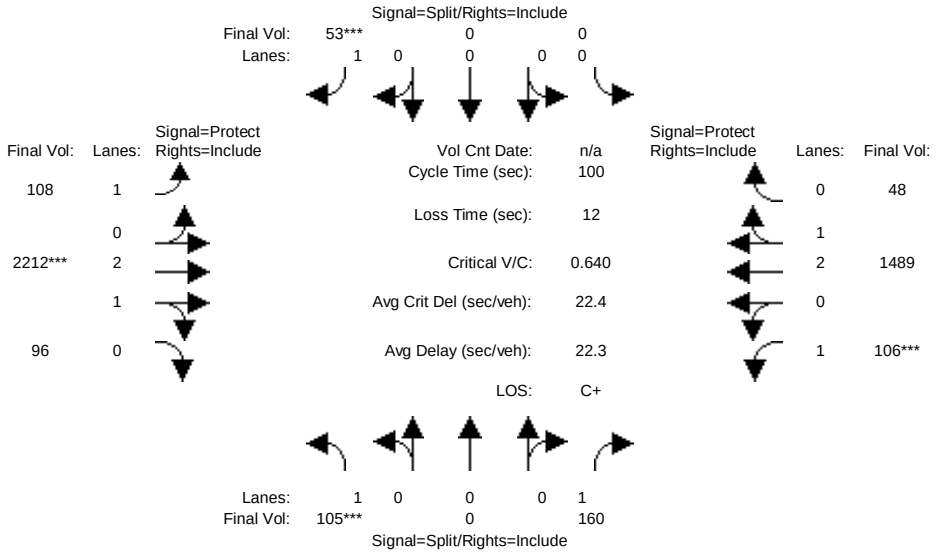
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #17: Stevens Creek Boulevard/Torre Avenue



Street Name:	Torre Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	105	0	160	0	0	53	108	1976	96	106	1234	48
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	105	0	160	0	0	53	108	1976	96	106	1234	48
Added Vol:	0	0	0	0	0	0	0	236	0	0	255	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	105	0	160	0	0	53	108	2212	96	106	1489	48
User Adj:	1.00	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:	105	0	160	0	0	53	108	2212	96	106	1489	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	105	0	160	0	0	53	108	2212	96	106	1489	48
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	105	0	160	0	0	53	108	2212	96	106	1489	48
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	0.00	1.00	0.00	0.00	1.00	1.00	2.87	0.13	1.00	2.90	0.10
Final Sat.:	1750	0	1750	0	0	1750	1750	5367	233	1750	5425	175
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.09	0.00	0.00	0.03	0.06	0.41	0.41	0.06	0.27	0.27
Crit Moves:	****					****		****		****		
Green Time:	14.3	0.0	14.3	0.0	0.0	10.0	12.9	55.5	55.5	8.2	50.8	50.8
Volume/Cap:	0.42	0.00	0.64	0.00	0.00	0.30	0.48	0.74	0.74	0.74	0.54	0.54
Uniform Del:	39.1	0.0	40.4	0.0	0.0	41.8	40.4	16.8	16.8	44.9	16.7	16.7
IncremntDel:	5.1	0.0	11.9	0.0	0.0	4.4	7.0	1.6	1.6	29.0	0.7	0.7
InitQueuDel:	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	44.2	0.0	52.3	0.0	0.0	46.2	47.4	18.4	18.4	73.9	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:	44.2	0.0	52.3	0.0	0.0	46.2	47.4	18.4	18.4	73.9	17.4	17.4
LOS by Move:	D	A	D-	A	A	D	D	B-	B-	E	B	B
HCM2kAvgQ:	90	0	153	0	0	48	97	478	478	129	275	275

Note: Queue reported is the distance per lane in feet.

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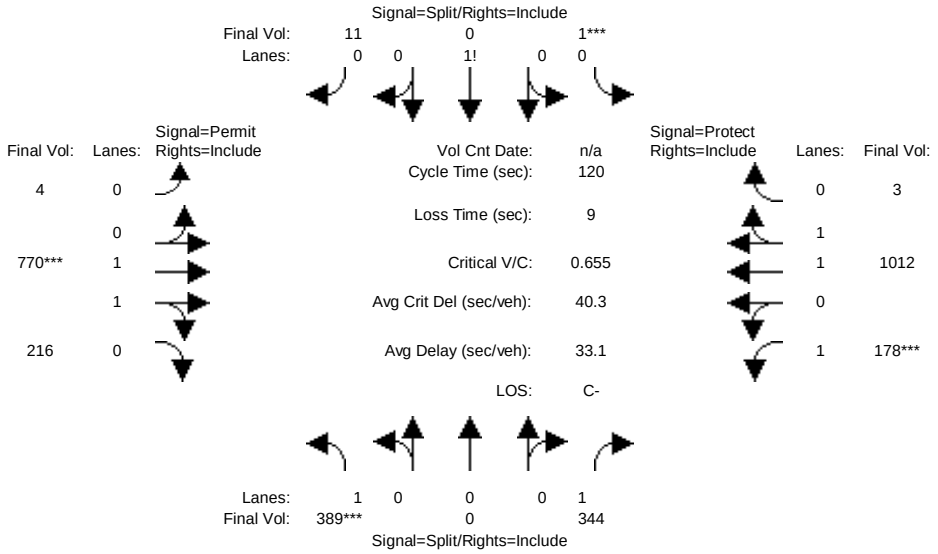
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #18: Homestead Road/Blaney Avenue



Street Name:	Homestead Road						Blaney Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	382	0	340	1	0	11	4	770	205	171	1012	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	382	0	340	1	0	11	4	770	205	171	1012	3
Added Vol:	7	0	4	0	0	0	0	0	11	7	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	389	0	344	1	0	11	4	770	216	178	1012	3
User Adj:	1.00	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:	389	0	344	1	0	11	4	770	216	178	1012	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	389	0	344	1	0	11	4	770	216	178	1012	3
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	389	0	344	1	0	11	4	770	216	178	1012	3
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.97	0.95
Lanes:	1.00	0.00	1.00	0.08	0.00	0.92	0.01	1.55	0.44	1.00	1.99	0.01
Final Sat.:	1750	0	1750	146	0	1604	15	2800	785	1750	3689	11
Capacity Analysis Module:												
Vol/Sat:	0.22	0.00	0.20	0.01	0.00	0.01	0.28	0.28	0.28	0.10	0.27	0.27
Crit Moves:	****			****				****		****		
Green Time:	37.5	0.0	37.5	10.0	0.0	10.0	46.4	46.4	46.4	17.2	63.5	63.5
Volume/Cap:	0.71	0.00	0.63	0.08	0.00	0.08	0.71	0.71	0.71	0.71	0.52	0.52
Uniform Del:	36.5	0.0	35.3	50.8	0.0	50.8	31.2	31.2	31.2	49.1	18.3	18.3
IncremntDel:	7.7	0.0	5.4	1.1	0.0	1.1	3.1	3.1	3.1	15.8	1.0	1.0
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	44.2	0.0	40.7	51.9	0.0	51.9	34.3	34.3	34.3	64.9	19.3	19.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.2	0.0	40.7	51.9	0.0	51.9	34.3	34.3	34.3	64.9	19.3	19.3
LOS by Move:	D	A	D	D-	A	D-	C-	C-	C-	E	B-	B-
HCM2kAvgQ:	367	0	307	12	0	12	425	425	425	205	308	308

Note: Queue reported is the distance per lane in feet.

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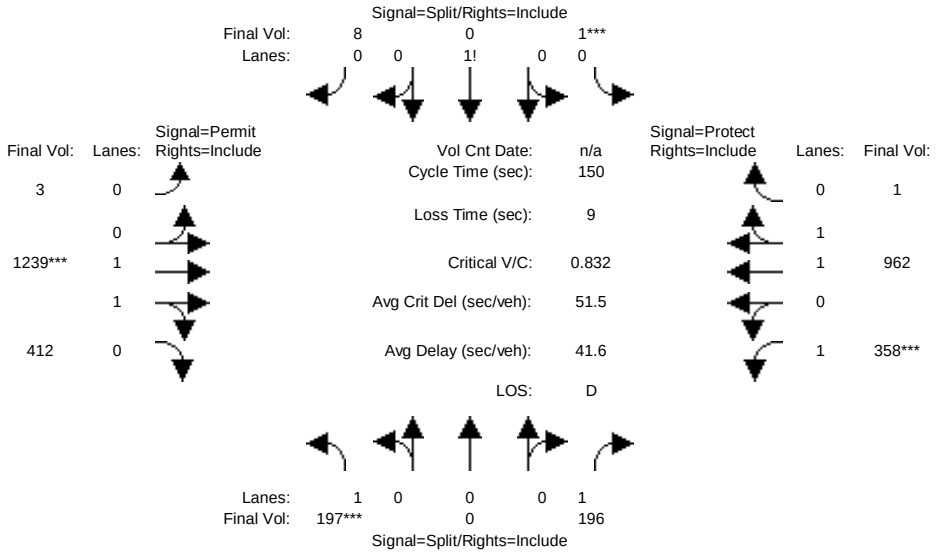
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #18: Homestead Road/Blaney Avenue



Street Name:	Homestead Road						Blaney Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	0	10	10	10	10	10	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	156	0	171	1	0	8	3	1239	374	335	962	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	156	0	171	1	0	8	3	1239	374	335	962	1
Added Vol:	41	0	25	0	0	0	0	0	38	23	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	197	0	196	1	0	8	3	1239	412	358	962	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	197	0	196	1	0	8	3	1239	412	358	962	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	197	0	196	1	0	8	3	1239	412	358	962	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	197	0	196	1	0	8	3	1239	412	358	962	1
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.97	0.95
Lanes:	1.00	0.00	1.00	0.11	0.00	0.89	0.01	1.50	0.49	1.00	1.99	0.01
Final Sat.:	1750	0	1750	194	0	1556	7	2697	897	1750	3696	4
Capacity Analysis Module:												
Vol/Sat:	0.11	0.00	0.11	0.01	0.00	0.01	0.46	0.46	0.46	0.20	0.26	0.26
Crit Moves:	****			****				****		****		
Green Time:	19.0	0.0	19.0	10.0	0.0	10.0	77.5	77.5	77.5	34.5	112	112.0
Volume/Cap:	0.89	0.00	0.88	0.08	0.00	0.08	0.89	0.89	0.89	0.89	0.35	0.35
Uniform Del:	64.5	0.0	64.4	65.7	0.0	65.7	32.4	32.4	32.4	55.9	6.5	6.5
IncremntDel:	37.3	0.0	36.6	1.3	0.0	1.3	6.8	6.8	6.8	24.2	0.3	0.3
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	101.8	0.0	101.0	67.0	0.0	67.0	39.2	39.2	39.2	80.1	6.9	6.9
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:	101.8	0.0	101.0	67.0	0.0	67.0	39.2	39.2	39.2	80.1	6.9	6.9
LOS by Move:	F	A	F	E	A	E	D	D	D	F	A	A
HCM2kAvgQ:	313	0	311	12	0	12	955	955	955	506	190	190

Note: Queue reported is the distance per lane in feet.

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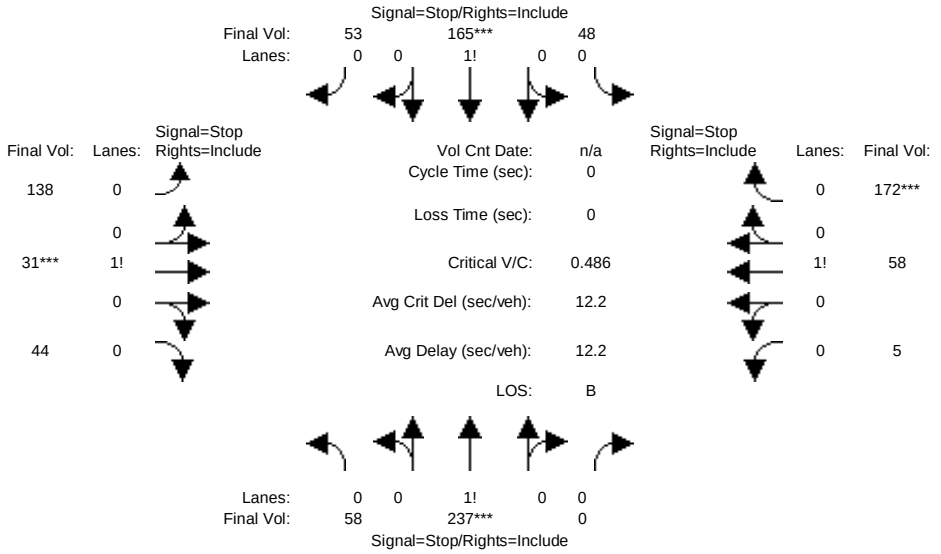
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #19: Blaney Avenue/Merritt Drive



Street Name:	Blaney Avenue						Merritt Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	58	226	0	48	147	53	138	31	44	5	58	172
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	58	226	0	48	147	53	138	31	44	5	58	172
Added Vol:	0	11	0	0	18	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	58	237	0	48	165	53	138	31	44	5	58	172
User Adj:	1.00	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:	58	237	0	48	165	53	138	31	44	5	58	172
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	237	0	48	165	53	138	31	44	5	58	172
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	58	237	0	48	165	53	138	31	44	5	58	172
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.20	0.80	0.00	0.18	0.62	0.20	0.65	0.14	0.21	0.02	0.25	0.73
Final Sat.:	119	488	0	110	378	121	368	83	117	13	152	450
Capacity Analysis Module:												
Vol/Sat:	0.49	0.49	xxxx	0.44	0.44	0.44	0.37	0.37	0.37	0.38	0.38	0.38
Crit Moves:		****			****			****				****
Delay/Veh:	13.2	13.2	0.0	12.2	12.2	12.2	11.8	11.8	11.8	11.2	11.2	11.2
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
AdjDel/Veh:	13.2	13.2	0.0	12.2	12.2	12.2	11.8	11.8	11.8	11.2	11.2	11.2
LOS by Move:	B	B	*	B	B	B	B	B	B	B	B	B
ApproachDel:		13.2			12.2			11.8			11.2	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		13.2			12.2			11.8			11.2	
LOS by Appr:		B			B			B			B	
AllWayAvgQ:	19.4	19.4	19.4	15.8	15.8	15.8	11.8	11.8	11.8	12.1	12.1	12.1

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #19 Blaney Avenue/Merritt Drive

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 1	0	0 0	0	0 1!	0 0	0 0	1!	0 0	0 0	1!	0 0
Initial Vol:	58	237	0	48	165	53	138	31	44	5	58	172

Major Street Volume: 561
Minor Approach Volume: 235
Minor Approach Volume Threshold: 374

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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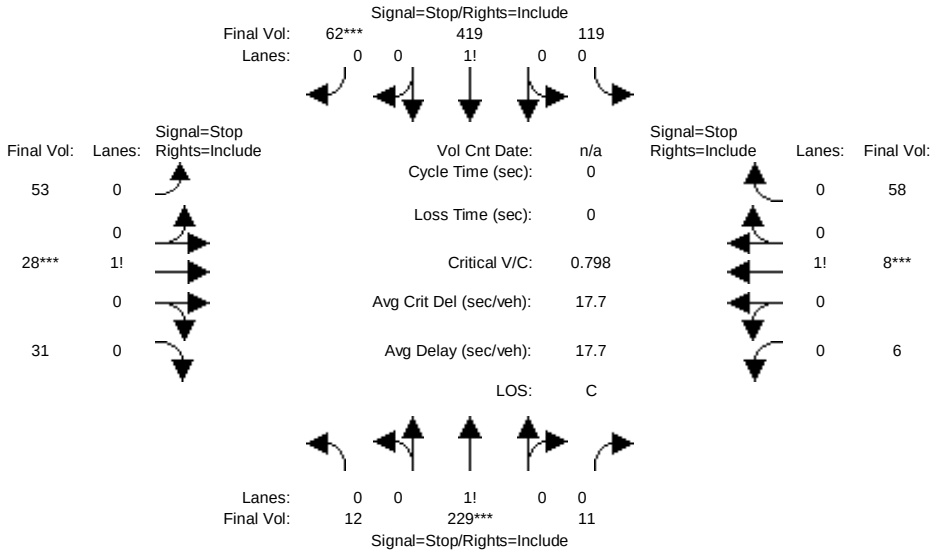
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #19: Blaney Avenue/Merritt Drive



Street Name:	Blaney Avenue						Merritt Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	12	163	11	119	358	62	53	28	31	6	8	58
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	163	11	119	358	62	53	28	31	6	8	58
Added Vol:	0	66	0	0	61	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	229	11	119	419	62	53	28	31	6	8	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:	12	229	11	119	419	62	53	28	31	6	8	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	229	11	119	419	62	53	28	31	6	8	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:	12	229	11	119	419	62	53	28	31	6	8	58
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.05	0.91	0.04	0.20	0.70	0.10	0.47	0.25	0.28	0.08	0.11	0.81
Final Sat.:	32	611	29	149	525	78	263	139	154	48	64	463
Capacity Analysis Module:												
Vol/Sat:	0.37	0.37	0.37	0.80	0.80	0.80	0.20	0.20	0.20	0.13	0.13	0.13
Crit Moves:		****				****		****			****	
Delay/Veh:	11.0	11.0	11.0	22.9	22.9	22.9	10.2	10.2	10.2	9.3	9.3	9.3
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
AdjDel/Veh:	11.0	11.0	11.0	22.9	22.9	22.9	10.2	10.2	10.2	9.3	9.3	9.3
LOS by Move:	B	B	B	C	C	C	B	B	B	A	A	A
ApproachDel:		11.0			22.9			10.2			9.3	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		11.0			22.9			10.2			9.3	
LOS by Appr:		B			C			B			A	
AllWayAvgQ:	13.2	13.2	13.2	79.4	79.4	79.4	5.1	5.1	5.1	2.8	2.8	2.8

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #19 Blaney Avenue/Merritt Drive

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0
Initial Vol:	12	229	11	119	419	62	53	28	31	6	8	58

Major Street Volume: 852
Minor Approach Volume: 112
Minor Approach Volume Threshold: 262

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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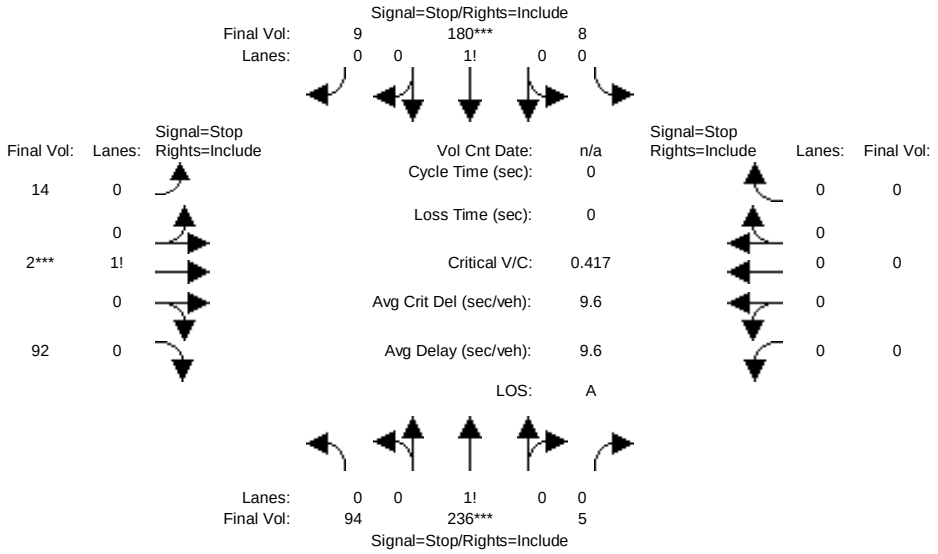
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #20: Blaney Avenue/Forest Avenue



Street Name:	Blaney Avenue						Forest Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	94	225	5	8	162	9	14	2	92	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	94	225	5	8	162	9	14	2	92	0	0	0
Added Vol:	0	11	0	0	18	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	94	236	5	8	180	9	14	2	92	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:	94	236	5	8	180	9	14	2	92	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	94	236	5	8	180	9	14	2	92	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:	94	236	5	8	180	9	14	2	92	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.28	0.71	0.01	0.04	0.91	0.05	0.13	0.02	0.85	0.00	0.00	0.00
Final Sat.:	225	566	12	32	715	36	95	14	622	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.42	0.42	0.42	0.25	0.25	0.25	0.15	0.15	0.15	xxxx	xxxx	xxxx
Crit Moves:		****			****			****				
Delay/Veh:	10.4	10.4	10.4	8.9	8.9	8.9	8.2	8.2	8.2	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
AdjDel/Veh:	10.4	10.4	10.4	8.9	8.9	8.9	8.2	8.2	8.2	0.0	0.0	0.0
LOS by Move:	B	B	B	A	A	A	A	A	A	*	*	*
ApproachDel:		10.4			8.9			8.2			xxxxxx	
Delay Adj:		1.00			1.00			1.00			xxxxx	
ApprAdjDel:		10.4			8.9			8.2			xxxxxx	
LOS by Appr:		B			A			A			*	
AllWayAvgQ:	16.8	16.8	16.8	7.8	7.8	7.8	3.6	3.6	3.6	0.0	0.0	0.0

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #20 Blaney Avenue/Forest Avenue

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0	0 0 0	0	0
Initial Vol:	94	236	5	8	180	9	14	2	92	0	0	0

Major Street Volume: 532
Minor Approach Volume: 108
Minor Approach Volume Threshold: 388

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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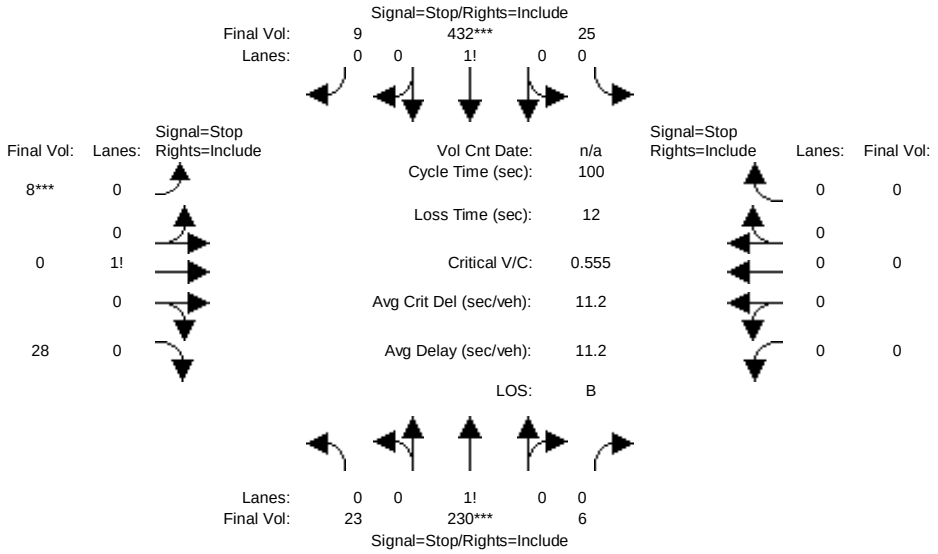
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #20: Blaney Avenue/Forest Avenue



Street Name:	Blaney Avenue						Forest Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	23	164	6	25	371	9	8	0	28	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	23	164	6	25	371	9	8	0	28	0	0	0
Added Vol:	0	66	0	0	61	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	23	230	6	25	432	9	8	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:	23	230	6	25	432	9	8	0	28	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	230	6	25	432	9	8	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
FinalVolume:	23	230	6	25	432	9	8	0	28	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.09	0.89	0.02	0.05	0.93	0.02	0.22	0.00	0.78	0.00	0.00	0.00
Final Sat.:	71	707	18	45	779	16	145	0	508	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.33	0.33	0.33	0.55	0.55	0.55	0.06	xxxx	0.06	xxxx	xxxx	xxxx
Crit Moves:		****			****		****					
Delay/Veh:	9.5	9.5	9.5	12.3	12.3	12.3	8.2	0.0	8.2	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
AdjDel/Veh:	9.5	9.5	9.5	12.3	12.3	12.3	8.2	0.0	8.2	0.0	0.0	0.0
LOS by Move:	A	A	A	B	B	B	A	*	A	*	*	*
ApproachDel:		9.5			12.3			8.2			xxxxxx	
Delay Adj:		1.00			1.00			1.00			xxxxx	
ApprAdjDel:		9.5			12.3			8.2			xxxxxx	
LOS by Appr:		A			B			A			*	
AllWayAvgQ:	11.4	11.4	11.4	29.5	29.5	29.5	1.2	1.2	1.2	0.0	0.0	0.0

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #20 Blaney Avenue/Forest Avenue

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1!	0		0 0 1!	0		0 0 1!	0		0 0 0	0	0
Initial Vol:	23	230	6	25	432	9	8	0	28	0	0	0

Major Street Volume: 725
Minor Approach Volume: 36
Minor Approach Volume Threshold: 305

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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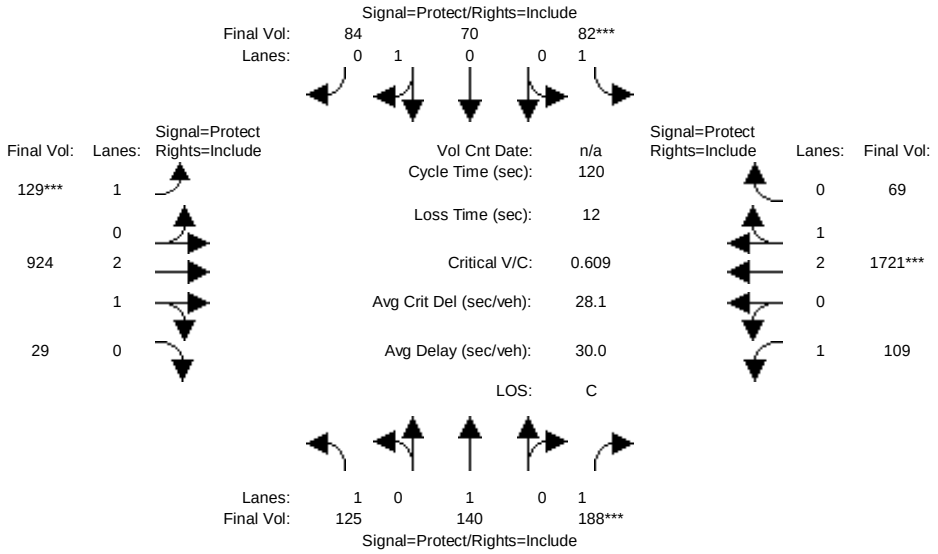
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #21: Stevens Creek Boulevard/Blaney Avenue



Street Name:	Blaney Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	125	140	179	64	70	84	129	854	29	104	1678	58
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	125	140	179	64	70	84	129	854	29	104	1678	58
Added Vol:	0	0	9	18	0	0	0	70	0	5	43	11
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	125	140	188	82	70	84	129	924	29	109	1721	69
User Adj:	1.00	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:	125	140	188	82	70	84	129	924	29	109	1721	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	125	140	188	82	70	84	129	924	29	109	1721	69
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	125	140	188	82	70	84	129	924	29	109	1721	69
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	1.00	1.00	1.00	0.45	0.55	1.00	2.91	0.09	1.00	2.88	0.12
Final Sat.:	1750	1900	1750	1750	818	982	1750	5429	170	1750	5384	216
Capacity Analysis Module:												
Vol/Sat:	0.07	0.07	0.11	0.05	0.09	0.09	0.07	0.17	0.17	0.06	0.32	0.32
Crit Moves:			****	****			****				****	
Green Time:	13.8	21.2	21.2	9.2	16.6	16.6	14.5	56.8	56.8	20.8	63.0	63.0
Volume/Cap:	0.62	0.42	0.61	0.61	0.62	0.62	0.61	0.36	0.36	0.36	0.61	0.61
Uniform Del:	50.6	43.9	45.6	53.6	48.7	48.7	50.0	20.1	20.1	43.7	19.9	19.9
IncremntDel:	13.4	3.8	8.6	18.8	11.1	11.1	12.3	0.4	0.4	3.3	0.9	0.9
InitQueuDel:	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:	64.0	47.7	54.2	72.4	59.8	59.8	62.4	20.4	20.4	47.0	20.8	20.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	64.0	47.7	54.2	72.4	59.8	59.8	62.4	20.4	20.4	47.0	20.8	20.8
LOS by Move:	E	D	D-	E	E+	E+	E	C+	C+	D	C+	C+
HCM2kAvgQ:	143	121	193	105	164	164	145	185	185	101	391	391

Note: Queue reported is the distance per lane in feet.

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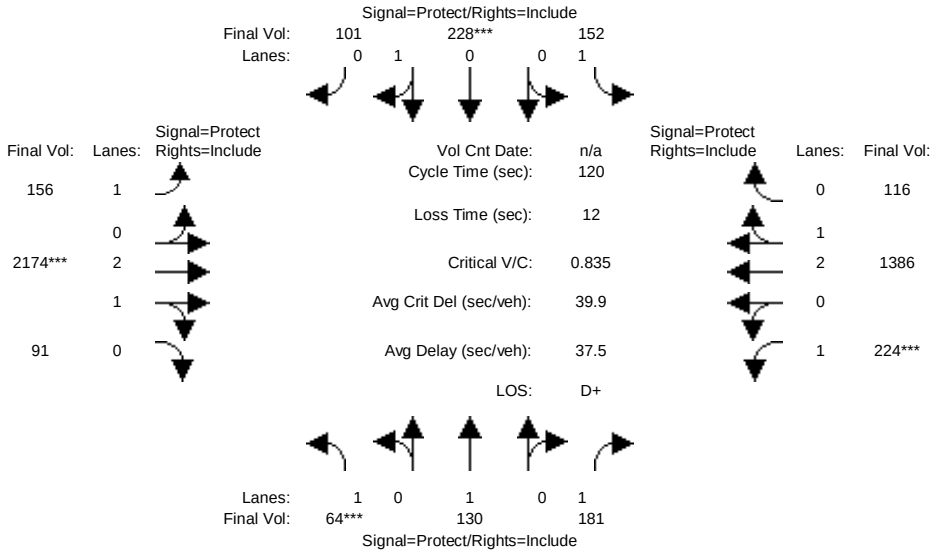
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #21: Stevens Creek Boulevard/Blaney Avenue



Street Name:	Blaney Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	64	130	151	91	228	101	156	1931	91	191	1123	50
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	64	130	151	91	228	101	156	1931	91	191	1123	50
Added Vol:	0	0	30	61	0	0	0	243	0	33	263	66
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	64	130	181	152	228	101	156	2174	91	224	1386	116
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	130	181	152	228	101	156	2174	91	224	1386	116
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	64	130	181	152	228	101	156	2174	91	224	1386	116
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	130	181	152	228	101	156	2174	91	224	1386	116
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	0.98	0.95	0.92	0.99	0.95
Lanes:	1.00	1.00	1.00	1.00	0.69	0.31	1.00	2.88	0.12	1.00	2.76	0.24
Final Sat.:	1750	1900	1750	1750	1247	553	1750	5375	225	1750	5167	432
Capacity Analysis Module:												
Vol/Sat:	0.04	0.07	0.10	0.09	0.18	0.18	0.09	0.40	0.40	0.13	0.27	0.27
Crit Moves:	****				****			****		****		
Green Time:	7.0	17.8	17.8	15.0	25.8	25.8	18.8	57.1	57.1	18.1	56.4	56.4
Volume/Cap:	0.63	0.46	0.70	0.70	0.85	0.85	0.57	0.85	0.85	0.85	0.57	0.57
Uniform Del:	55.2	46.7	48.5	50.3	45.2	45.2	46.9	27.7	27.7	49.6	23.0	23.0
IncremntDel:	25.7	5.3	14.3	16.8	20.2	20.2	8.4	3.6	3.6	27.5	0.9	0.9
InitQueuDel:	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:	80.9	52.0	62.8	67.1	65.5	65.5	55.3	31.3	31.3	77.1	23.9	23.9
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:	80.9	52.0	62.8	67.1	65.5	65.5	55.3	31.3	31.3	77.1	23.9	23.9
LOS by Move:	F	D-	E	E	E	E	E+	C	C	E-	C	C
HCM2kAvgQ:	90	119	204	179	373	373	162	676	676	284	340	340

Note: Queue reported is the distance per lane in feet.

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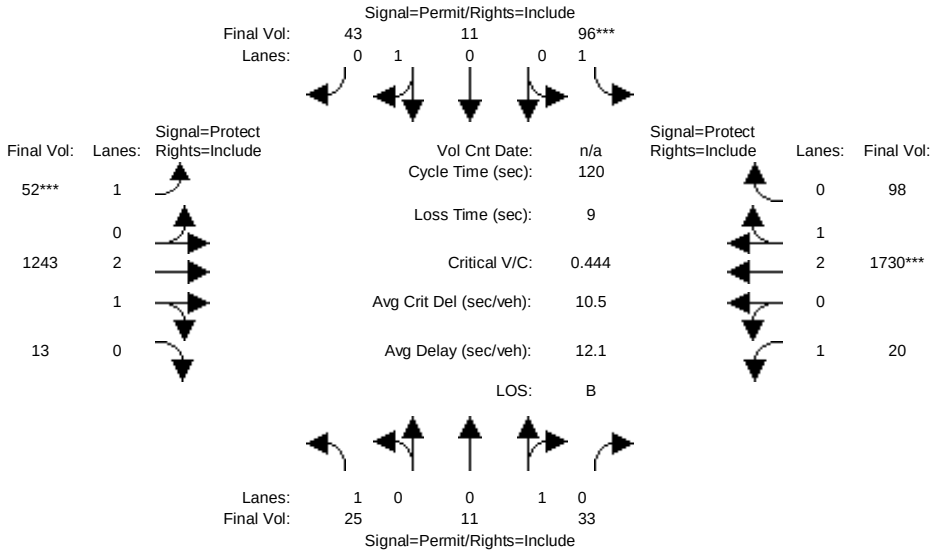
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #22: Stevens Creek Boulevard/Portal Avenue



Street Name:	Portal Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	25	11	33	96	11	43	52	1146	13	20	1671	98
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	11	33	96	11	43	52	1146	13	20	1671	98
Added Vol:	0	0	0	0	0	0	0	97	0	0	59	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	25	11	33	96	11	43	52	1243	13	20	1730	98
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	25	11	33	96	11	43	52	1243	13	20	1730	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	11	33	96	11	43	52	1243	13	20	1730	98
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	25	11	33	96	11	43	52	1243	13	20	1730	98
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	0.25	0.75	1.00	0.20	0.80	1.00	2.97	0.03	1.00	2.83	0.17
Final Sat.:	1750	450	1350	1750	367	1433	1750	5542	58	1750	5299	300
Capacity Analysis Module:												
Vol/Sat:	0.01	0.02	0.02	0.05	0.03	0.03	0.03	0.22	0.22	0.01	0.33	0.33
Crit Moves:				****			****				****	
Green Time:	14.8	14.8	14.8	14.8	14.8	14.8	8.0	76.3	76.3	19.9	88.2	88.2
Volume/Cap:	0.12	0.20	0.20	0.44	0.24	0.24	0.44	0.35	0.35	0.07	0.44	0.44
Uniform Del:	46.8	47.3	47.3	48.8	47.5	47.5	53.8	10.2	10.2	42.3	6.3	6.3
IncremntDel:	1.1	2.0	2.0	6.5	2.6	2.6	11.7	0.3	0.3	0.5	0.3	0.3
InitQueuDel:	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:	47.9	49.2	49.2	55.3	50.1	50.1	65.6	10.5	10.5	42.7	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:	47.9	49.2	49.2	55.3	50.1	50.1	65.6	10.5	10.5	42.7	6.6	6.6
LOS by Move:	D	D	D	E+	D	D	E	B+	B+	D	A	A
HCM2kAvgQ:	23	41	41	100	51	51	64	180	180	17	223	223

Note: Queue reported is the distance per lane in feet.

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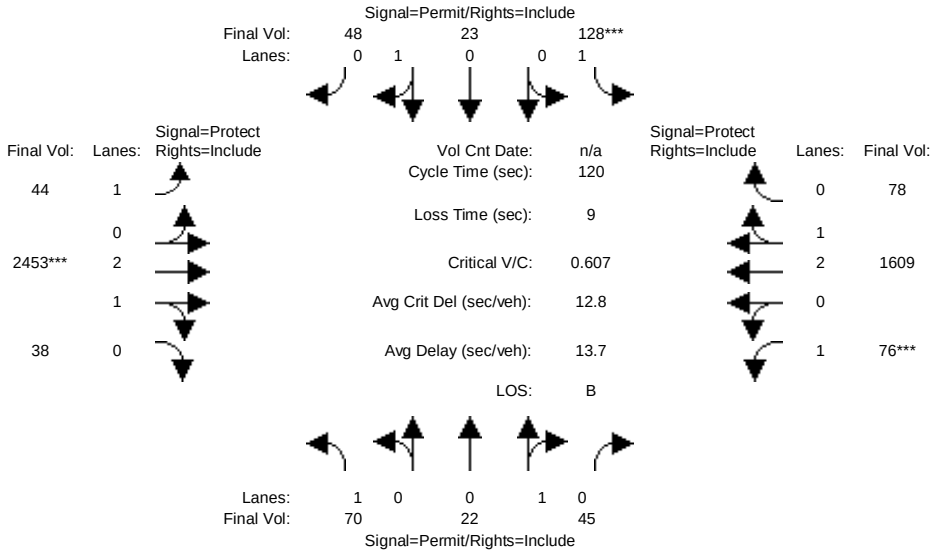
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #22: Stevens Creek Boulevard/Portal Avenue



Street Name:	Portal Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	70	22	45	128	23	48	44	2119	38	76	1247	78
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	70	22	45	128	23	48	44	2119	38	76	1247	78
Added Vol:	0	0	0	0	0	0	0	334	0	0	362	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	70	22	45	128	23	48	44	2453	38	76	1609	78
User Adj:	1.00	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:	70	22	45	128	23	48	44	2453	38	76	1609	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	70	22	45	128	23	48	44	2453	38	76	1609	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	70	22	45	128	23	48	44	2453	38	76	1609	78
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	0.33	0.67	1.00	0.32	0.68	1.00	2.95	0.05	1.00	2.86	0.14
Final Sat.:	1750	591	1209	1750	583	1217	1750	5514	85	1750	5341	259
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.04	0.07	0.04	0.04	0.03	0.44	0.44	0.04	0.30	0.30
Crit Moves:				****				****		****		
Green Time:	14.5	14.5	14.5	14.5	14.5	14.5	15.7	88.0	88.0	8.6	80.9	80.9
Volume/Cap:	0.33	0.31	0.31	0.61	0.33	0.33	0.19	0.61	0.61	0.61	0.45	0.45
Uniform Del:	48.3	48.2	48.2	50.1	48.3	48.3	46.5	7.7	7.7	54.1	9.1	9.1
IncremntDel:	4.2	3.7	3.7	12.3	4.0	4.0	1.9	0.7	0.7	19.9	0.4	0.4
InitQueuDel:	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:	52.5	51.9	51.9	62.4	52.3	52.3	48.4	8.4	8.4	74.0	9.5	9.5
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:	52.5	51.9	51.9	62.4	52.3	52.3	48.4	8.4	8.4	74.0	9.5	9.5
LOS by Move:	D-	D-	D-	E	D-	D-	D	A	A	E	A	A
HCM2kAvgQ:	70	65	65	144	69	69	41	377	377	99	243	243

Note: Queue reported is the distance per lane in feet.

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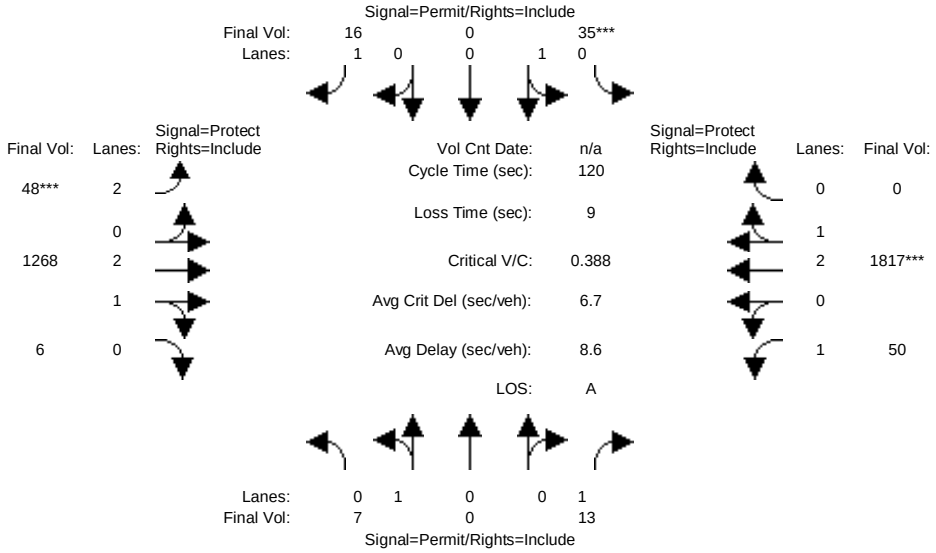
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #23: Stevens Creek Boulevard/Perimeter Road



Street Name:	Perimeter Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	7	0	13	35	0	16	48	1268	6	50	1817	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:	7	0	13	35	0	16	48	1268	6	50	1817	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:	7	0	13	35	0	16	48	1268	6	50	1817	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:	7	0	13	35	0	16	48	1268	6	50	1817	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	0	13	35	0	16	48	1268	6	50	1817	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:	7	0	13	35	0	16	48	1268	6	50	1817	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.95	0.95	0.92	0.83	0.98	0.95	0.92	0.98	0.92
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	2.00	2.99	0.01	1.00	3.00	0.00
Final Sat.:	1800	0	1750	1800	0	1750	3150	5574	26	1750	5600	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.01	0.02	0.00	0.01	0.02	0.23	0.23	0.03	0.32	0.00
Crit Moves:				****			****				****	
Green Time:	10.0	0.0	10.0	10.0	0.0	10.0	7.0	80.4	80.4	20.6	94.0	0.0
Volume/Cap:	0.05	0.00	0.09	0.23	0.00	0.11	0.26	0.34	0.34	0.17	0.41	0.00
Uniform Del:	50.6	0.0	50.8	51.4	0.0	50.9	54.0	8.5	8.5	42.4	4.2	0.0
IncremntDel:	0.6	0.0	1.2	3.6	0.0	1.5	3.4	0.2	0.2	1.2	0.3	0.0
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	51.2	0.0	52.0	55.0	0.0	52.4	57.5	8.7	8.7	43.6	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:	51.2	0.0	52.0	55.0	0.0	52.4	57.5	8.7	8.7	43.6	4.5	0.0
LOS by Move:	D-	A	D-	E+	A	D-	E+	A	A	D	A	A
HCM2kAvgQ:	7	0	13	36	0	16	32	167	167	39	173	0

Note: Queue reported is the distance per lane in feet.

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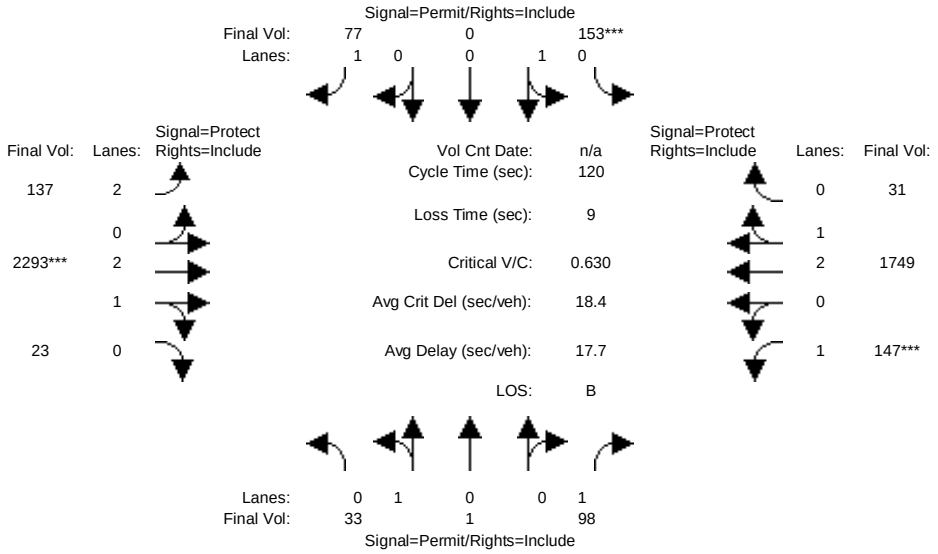
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #23: Stevens Creek Boulevard/Perimeter Road



Street Name:	Perimeter Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	33	1	98	153	0	77	137	2293	23	147	1749	31
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	33	1	98	153	0	77	137	2293	23	147	1749	31
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:	33	1	98	153	0	77	137	2293	23	147	1749	31
User Adj:	1.00	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:	33	1	98	153	0	77	137	2293	23	147	1749	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	1	98	153	0	77	137	2293	23	147	1749	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	33	1	98	153	0	77	137	2293	23	147	1749	31
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.95	0.95	0.92	0.83	0.98	0.95	0.92	0.98	0.95
Lanes:	0.97	0.03	1.00	1.00	0.00	1.00	2.00	2.97	0.03	1.00	2.95	0.05
Final Sat.:	1747	53	1750	1800	0	1750	3150	5544	56	1750	5502	98
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.06	0.09	0.00	0.04	0.04	0.41	0.41	0.08	0.32	0.32
Crit Moves:				****				****		****		
Green Time:	16.2	16.2	16.2	16.2	0.0	16.2	14.7	78.8	78.8	16.0	80.1	80.1
Volume/Cap:	0.14	0.14	0.41	0.63	0.00	0.33	0.36	0.63	0.63	0.63	0.48	0.48
Uniform Del:	45.8	45.8	47.6	49.1	0.0	47.0	48.3	12.1	12.1	49.2	9.7	9.7
IncremntDel:	1.2	1.2	5.3	11.8	0.0	3.6	2.5	0.8	0.8	12.2	0.4	0.4
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	47.0	47.0	52.9	60.8	0.0	50.6	50.8	12.9	12.9	61.4	10.2	10.2
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:	47.0	47.0	52.9	60.8	0.0	50.6	50.8	12.9	12.9	61.4	10.2	10.2
LOS by Move:	D	D	D-	E	A	D	D	B	B	E	B+	B+
HCM2kAvgQ:	30	30	98	165	0	75	77	425	425	131	253	253

Note: Queue reported is the distance per lane in feet.

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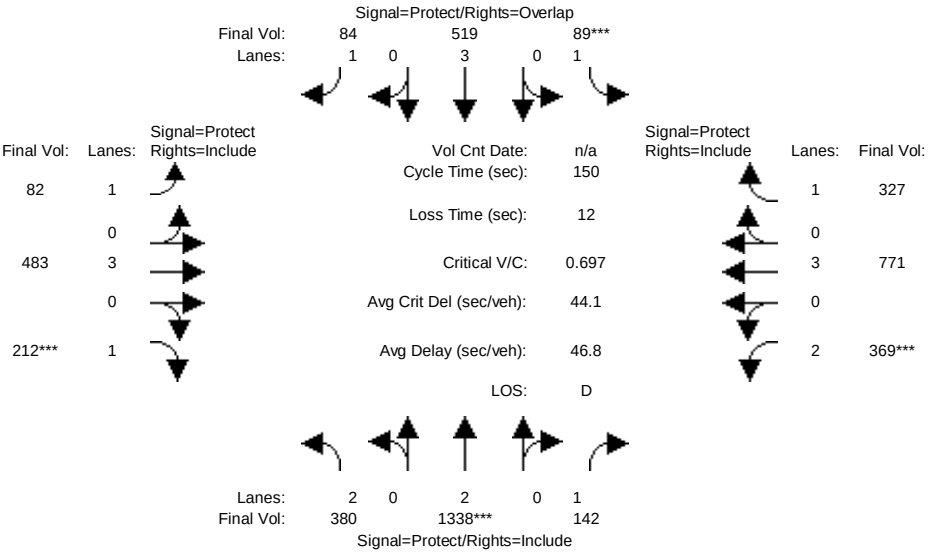
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #24: Wolfe Road/El Camino Real



Street Name:	Wolfe Road						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	364	1327	142	89	501	84	82	483	186	369	771	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:	364	1327	142	89	501	84	82	483	186	369	771	327
Added Vol:	16	11	0	0	18	0	0	0	26	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	380	1338	142	89	519	84	82	483	212	369	771	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:	380	1338	142	89	519	84	82	483	212	369	771	327
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	380	1338	142	89	519	84	82	483	212	369	771	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:	380	1338	142	89	519	84	82	483	212	369	771	327
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3150	3800	1750	1750	5700	1750	1750	5700	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.12	0.35	0.08	0.05	0.09	0.05	0.05	0.08	0.12	0.12	0.14	0.19
Crit Moves:		****		****					****	****		
Green Time:	49.4	75.8	75.8	10.9	37.3	47.6	10.3	26.1	26.1	25.2	41.0	41.0
Volume/Cap:	0.37	0.70	0.16	0.70	0.37	0.15	0.68	0.49	0.70	0.70	0.49	0.68
Uniform Del:	38.3	28.3	20.0	67.9	46.6	36.7	68.3	55.9	58.3	58.8	45.8	48.7
IncremntDel:	1.0	2.1	0.4	27.1	0.7	0.6	27.2	1.7	12.5	7.4	1.1	7.7
InitQueuDel:	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:	39.3	30.5	20.4	95.0	47.3	37.3	95.5	57.7	70.7	66.2	46.9	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:	39.3	30.5	20.4	95.0	47.3	37.3	95.5	57.7	70.7	66.2	46.9	56.4
LOS by Move:	D	C	C+	F	D	D+	F	E+	E	E	D	E+
HCM2kAvgQ:	196	587	91	142	163	73	132	174	275	268	249	380

Note: Queue reported is the distance per lane in feet.

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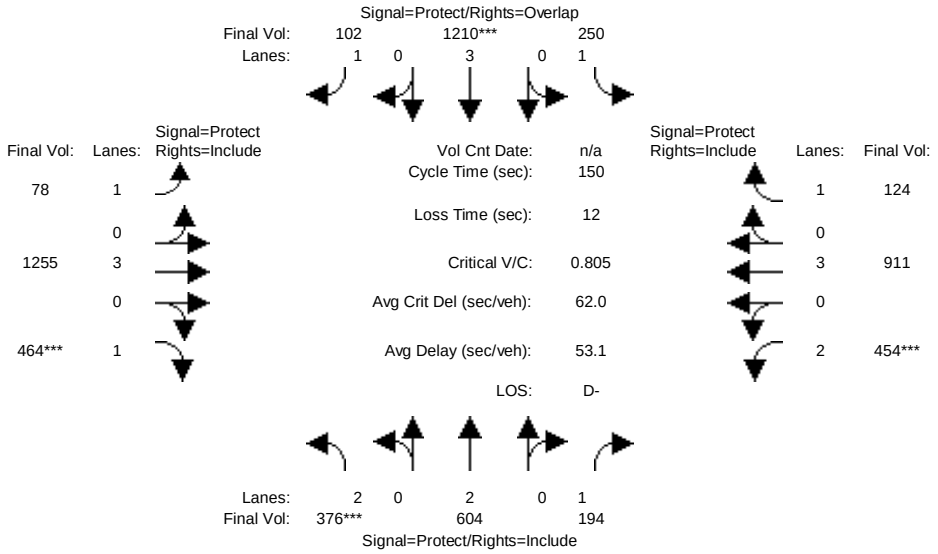
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #24: Wolfe Road/El Camino Real



Street Name:	Wolfe Road						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	277	538	194	250	1149	102	78	1255	373	454	911	124
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	277	538	194	250	1149	102	78	1255	373	454	911	124
Added Vol:	99	66	0	0	61	0	0	0	91	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	376	604	194	250	1210	102	78	1255	464	454	911	124
User Adj:	1.00	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:	376	604	194	250	1210	102	78	1255	464	454	911	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	376	604	194	250	1210	102	78	1255	464	454	911	124
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	376	604	194	250	1210	102	78	1255	464	454	911	124
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3150	3800	1750	1750	5700	1750	1750	5700	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.12	0.16	0.11	0.14	0.21	0.06	0.04	0.22	0.27	0.14	0.16	0.07
Crit Moves:	****				****				****	****		
Green Time:	22.2	32.5	32.5	29.2	39.5	56.8	17.2	49.4	49.4	26.8	59.0	59.0
Volume/Cap:	0.81	0.73	0.51	0.73	0.81	0.15	0.39	0.67	0.81	0.81	0.41	0.18
Uniform Del:	61.8	54.7	51.7	56.7	51.6	30.8	61.5	43.3	45.9	59.1	32.9	29.7
IncremntDel:	13.8	5.7	4.9	13.1	4.7	0.5	5.6	1.9	11.4	11.7	0.5	0.6
InitQueuDel:	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:	75.6	60.4	56.6	69.8	56.3	31.3	67.1	45.2	57.4	70.7	33.4	30.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	75.6	60.4	56.6	69.8	56.3	31.3	67.1	45.2	57.4	70.7	33.4	30.3
LOS by Move:	E-	E	E+	E	E+	C	E	D	E+	E	C-	C
HCM2kAvgQ:	301	352	218	323	474	81	97	422	564	349	245	97

Note: Queue reported is the distance per lane in feet.

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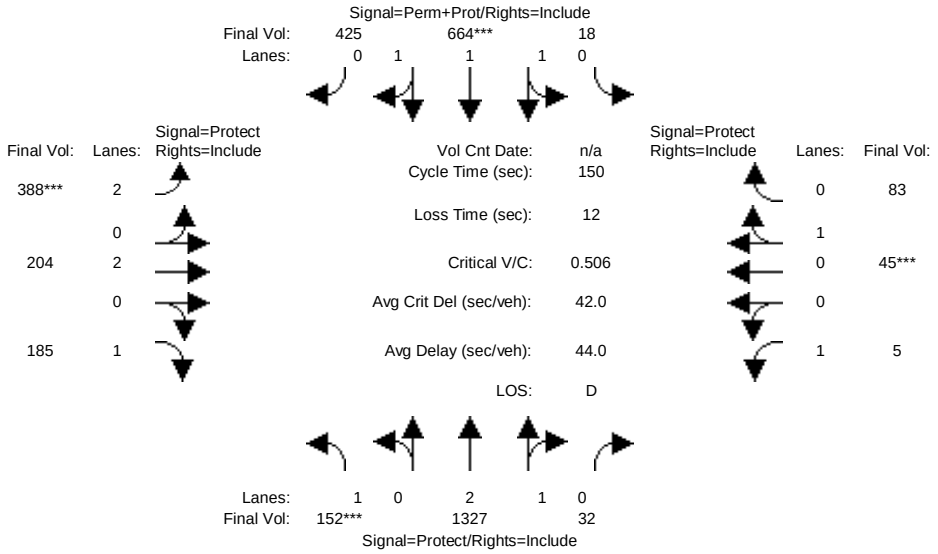
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #25: Wolfe Road/Fremont Avenue



Street Name:	Wolfe Road						Fremont Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	152	1300	32	18	620	425	388	204	185	5	45	83
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	152	1300	32	18	620	425	388	204	185	5	45	83
Added Vol:	0	27	0	0	44	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	152	1327	32	18	664	425	388	204	185	5	45	83
User Adj:	1.00	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:	152	1327	32	18	664	425	388	204	185	5	45	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	152	1327	32	18	664	425	388	204	185	5	45	83
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	152	1327	32	18	664	425	388	204	185	5	45	83
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.95	0.98	0.95	0.83	1.00	0.92	0.92	0.95	0.95
Lanes:	1.00	2.93	0.07	0.05	1.95	1.00	2.00	2.00	1.00	1.00	0.35	0.65
Final Sat.:	1750	5468	132	98	3610	1800	3150	3800	1750	1750	633	1167
Capacity Analysis Module:												
Vol/Sat:	0.09	0.24	0.24	0.00	0.18	0.24	0.12	0.05	0.11	0.00	0.07	0.07
Crit Moves:	****				****		****				****	
Green Time:	25.5	53.9	53.9	43.9	69.3	69.3	27.4	30.0	30.0	13.2	15.8	15.8
Volume/Cap:	0.51	0.67	0.67	0.63	0.40	0.51	0.67	0.27	0.53	0.03	0.67	0.67
Uniform Del:	56.6	40.6	40.6	46.0	26.6	28.4	57.2	50.8	53.7	62.5	64.6	64.6
IncremntDel:	6.1	1.8	1.8	1.7	0.4	0.9	6.2	0.9	5.6	0.4	17.6	17.6
InitQueuDel:	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:	62.7	42.4	42.4	47.7	27.0	29.3	63.4	51.6	59.4	62.9	82.2	82.2
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:	62.7	42.4	42.4	47.7	27.0	29.3	63.4	51.6	59.4	62.9	82.2	82.2
LOS by Move:	E	D	D	D	C	C	E	D-	E+	E	F	F
HCM2kAvgQ:	181	455	455	355	256	355	273	99	214	6	178	178

Note: Queue reported is the distance per lane in feet.

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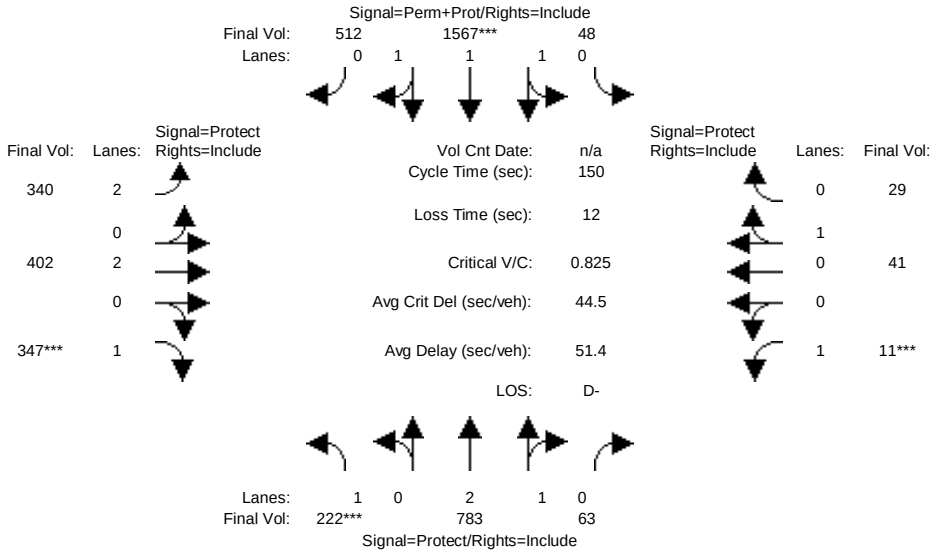
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #25: Wolfe Road/Fremont Avenue



Street Name:	Wolfe Road						Fremont Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	222	618	63	48	1415	512	340	402	347	11	41	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	222	618	63	48	1415	512	340	402	347	11	41	29
Added Vol:	0	165	0	0	152	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	222	783	63	48	1567	512	340	402	347	11	41	29
User Adj:	1.00	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:	222	783	63	48	1567	512	340	402	347	11	41	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	222	783	63	48	1567	512	340	402	347	11	41	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	222	783	63	48	1567	512	340	402	347	11	41	29
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.95	0.97	0.95	0.83	1.00	0.92	0.92	0.95	0.95
Lanes:	1.00	2.77	0.23	0.07	2.20	0.73	2.00	2.00	1.00	1.00	0.59	0.41
Final Sat.:	1750	5182	417	124	4051	1324	3150	3800	1750	1750	1054	746
Capacity Analysis Module:												
Vol/Sat:	0.13	0.15	0.15	0.00	0.39	0.39	0.11	0.11	0.20	0.01	0.04	0.04
Crit Moves:	****				****				****	****		
Green Time:	23.6	26.9	26.9	71.8	72.1	72.1	26.1	35.3	35.3	7.0	16.1	16.1
Volume/Cap:	0.80	0.84	0.84	0.81	0.80	0.80	0.62	0.45	0.84	0.13	0.36	0.36
Uniform Del:	61.0	59.5	59.5	33.2	33.0	33.0	57.3	49.1	54.7	68.6	62.1	62.1
IncremntDel:	21.6	8.6	8.6	2.8	2.7	2.7	5.2	1.6	18.6	3.4	5.2	5.2
InitQueuDel:	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:	82.6	68.1	68.1	36.0	35.7	35.7	62.5	50.7	73.3	72.0	67.3	67.3
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:	82.6	68.1	68.1	36.0	35.7	35.7	62.5	50.7	73.3	72.0	67.3	67.3
LOS by Move:	F	E	E	D+	D+	D+	E	D	E	E	E	E
HCM2kAvgQ:	316	377	377	741	737	737	235	199	468	16	85	85

Note: Queue reported is the distance per lane in feet.

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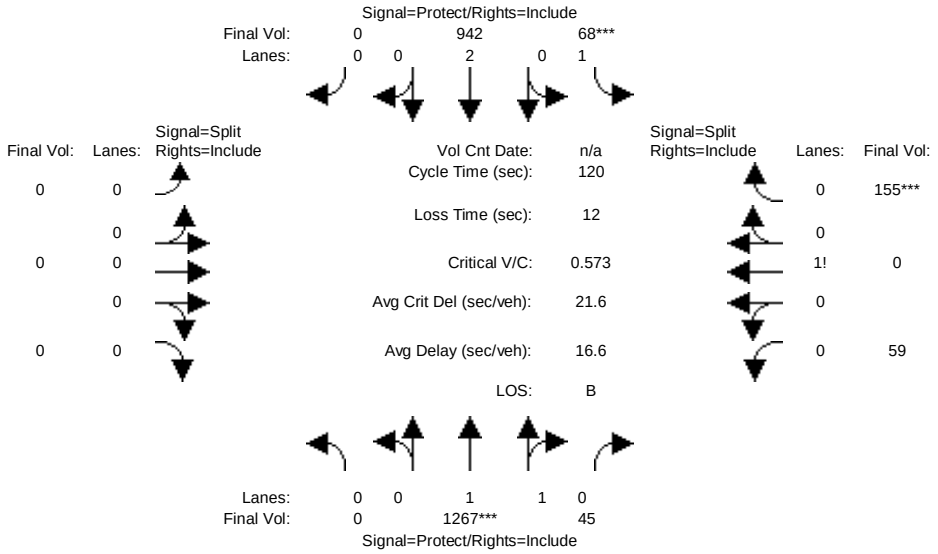
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #26: Wolfe Road/Marion Way



Street Name:	Wolfe Road						Marion Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1240	40	68	898	0	0	0	0	50	0	155
Growth Adj:	1.00	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	1240	40	68	898	0	0	0	0	50	0	155
Added Vol:	0	27	5	0	44	0	0	0	0	9	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1267	45	68	942	0	0	0	0	59	0	155
User Adj:	1.00	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	1267	45	68	942	0	0	0	0	59	0	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1267	45	68	942	0	0	0	0	59	0	155
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1267	45	68	942	0	0	0	0	59	0	155
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	0.00	1.93	0.07	1.00	2.00	0.00	0.00	0.00	0.00	0.28	0.00	0.72
Final Sat.:	0	3573	127	1750	3800	0	0	0	0	482	0	1268
Capacity Analysis Module:												
Vol/Sat:	0.00	0.35	0.35	0.04	0.25	0.00	0.00	0.00	0.00	0.12	0.00	0.12
Crit Moves:		****		****								****
Green Time:	0.0	74.3	74.3	8.1	82.4	0.0	0.0	0.0	0.0	25.6	0.0	25.6
Volume/Cap:	0.00	0.57	0.57	0.57	0.36	0.00	0.00	0.00	0.00	0.57	0.00	0.57
Uniform Del:	0.0	13.5	13.5	54.2	7.8	0.0	0.0	0.0	0.0	42.3	0.0	42.3
IncremntDel:	0.0	1.0	1.0	18.6	0.4	0.0	0.0	0.0	0.0	6.3	0.0	6.3
InitQueuDel:	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	14.6	14.6	72.8	8.2	0.0	0.0	0.0	0.0	48.6	0.0	48.6
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	14.6	14.6	72.8	8.2	0.0	0.0	0.0	0.0	48.6	0.0	48.6
LOS by Move:	A	B	B	E	A	A	A	A	A	D	A	D
HCM2kAvgQ:	0	364	364	88	178	0	0	0	0	205	0	205

Note: Queue reported is the distance per lane in feet.

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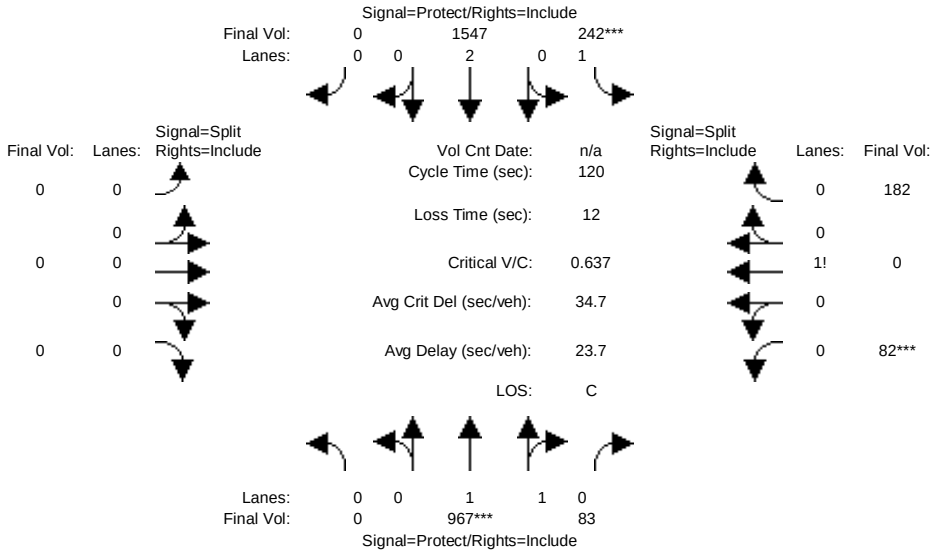
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #26: Wolfe Road/Marion Way



Street Name:	Wolfe Road						Marion Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	802	50	242	1395	0	0	0	0	52	0	182
Growth Adj:	1.00	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	802	50	242	1395	0	0	0	0	52	0	182
Added Vol:	0	165	33	0	152	0	0	0	0	30	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	967	83	242	1547	0	0	0	0	82	0	182
User Adj:	1.00	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	967	83	242	1547	0	0	0	0	82	0	182
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	967	83	242	1547	0	0	0	0	82	0	182
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	967	83	242	1547	0	0	0	0	82	0	182
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	0.00	1.84	0.16	1.00	2.00	0.00	0.00	0.00	0.00	0.31	0.00	0.69
Final Sat.:	0	3407	292	1750	3800	0	0	0	0	544	0	1206
Capacity Analysis Module:												
Vol/Sat:	0.00	0.28	0.28	0.14	0.41	0.00	0.00	0.00	0.00	0.15	0.00	0.15
Crit Moves:		****		****						****		
Green Time:	0.0	53.5	53.5	26.1	79.6	0.0	0.0	0.0	0.0	28.4	0.0	28.4
Volume/Cap:	0.00	0.64	0.64	0.64	0.61	0.00	0.00	0.00	0.00	0.64	0.00	0.64
Uniform Del:	0.0	25.7	25.7	42.7	11.5	0.0	0.0	0.0	0.0	41.1	0.0	41.1
IncremntDel:	0.0	1.9	1.9	7.9	1.1	0.0	0.0	0.0	0.0	7.3	0.0	7.3
InitQueuDel:	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	27.6	27.6	50.6	12.6	0.0	0.0	0.0	0.0	48.4	0.0	48.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	27.6	27.6	50.6	12.6	0.0	0.0	0.0	0.0	48.4	0.0	48.4
LOS by Move:	A	C	C	D	B	A	A	A	A	D	A	D
HCM2kAvgQ:	0	390	390	239	405	0	0	0	0	255	0	255

Note: Queue reported is the distance per lane in feet.

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2000 HCM Operations (Future Volume Alternative)
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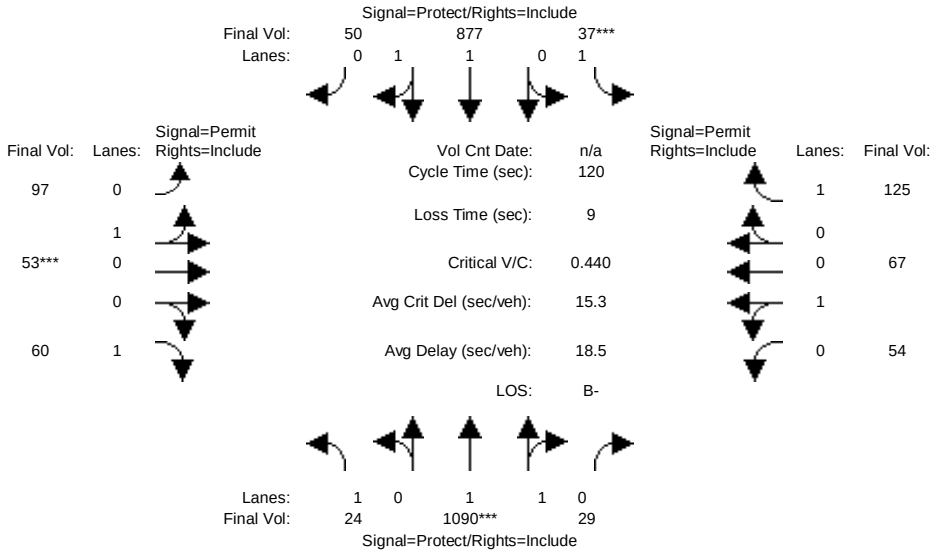
Intersection #27: Wolfe Road/Iverness Avenue



Street Name:	Wolfe Road						Iverness Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	24	1058	29	37	824	50	97	53	60	54	67	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	24	1058	29	37	824	50	97	53	60	54	67	125
Added Vol:	0	32	0	0	53	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	24	1090	29	37	877	50	97	53	60	54	67	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	24	1090	29	37	877	50	97	53	60	54	67	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	1090	29	37	877	50	97	53	60	54	67	125
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	24	1090	29	37	877	50	97	53	60	54	67	125
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.95	0.05	1.00	1.89	0.11	0.65	0.35	1.00	0.45	0.55	1.00
Final Sat.:	1750	3604	96	1750	3500	200	1164	636	1750	803	997	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.30	0.30	0.02	0.25	0.25	0.08	0.08	0.03	0.07	0.07	0.07
Crit Moves:		****		****				****				
Green Time:	16.7	81.5	81.5	7.0	71.8	71.8	22.5	22.5	22.5	22.5	22.5	22.5
Volume/Cap:	0.10	0.45	0.45	0.36	0.42	0.42	0.45	0.45	0.18	0.36	0.36	0.38
Uniform Del:	45.1	8.8	8.8	54.4	12.9	12.9	43.2	43.2	41.0	42.5	42.5	42.7
IncremntDel:	0.8	0.6	0.6	9.7	0.6	0.6	4.2	4.2	1.2	3.0	3.0	3.3
InitQueuDel:	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	9.4	9.4	64.0	13.5	13.5	47.5	47.5	42.3	45.5	45.5	46.0
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:	45.9	9.4	9.4	64.0	13.5	13.5	47.5	47.5	42.3	45.5	45.5	46.0
LOS by Move:	D	A	A	E	B	B	D	D	D	D	D	D
HCM2kAvgQ:	22	240	240	46	230	230	136	136	51	106	106	114

Note: Queue reported is the distance per lane in feet.

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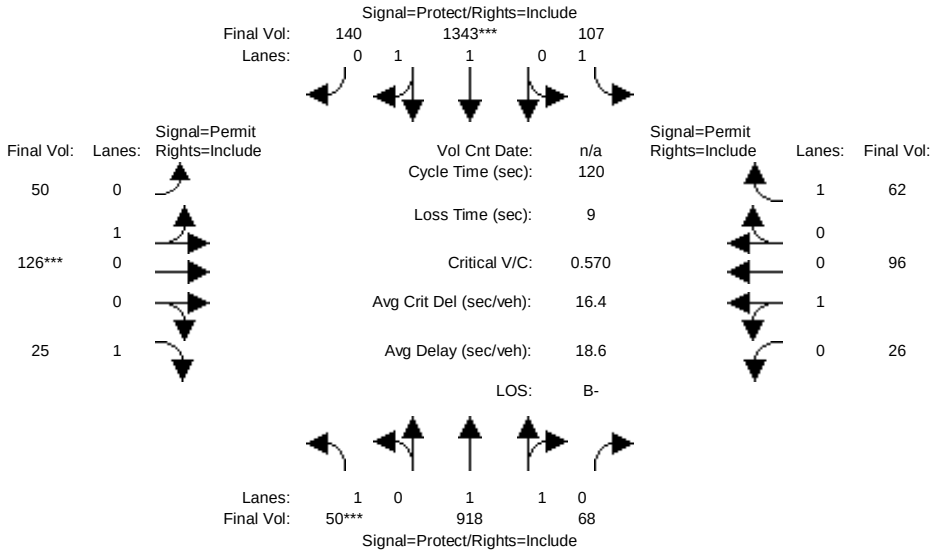
Intersection #27: Wolfe Road/Iverness Avenue



Street Name:	Wolfe Road						Iverness Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	50	720	68	107	1161	140	50	126	25	26	96	62
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	720	68	107	1161	140	50	126	25	26	96	62
Added Vol:	0	198	0	0	182	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	50	918	68	107	1343	140	50	126	25	26	96	62
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	918	68	107	1343	140	50	126	25	26	96	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	918	68	107	1343	140	50	126	25	26	96	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	50	918	68	107	1343	140	50	126	25	26	96	62
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.86	0.14	1.00	1.81	0.19	0.28	0.72	1.00	0.21	0.79	1.00
Final Sat.:	1750	3445	255	1750	3350	349	511	1289	1750	384	1416	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.27	0.27	0.06	0.40	0.40	0.10	0.10	0.01	0.07	0.07	0.04
Crit Moves:	****				****			****				
Green Time:	7.0	73.7	73.7	16.9	83.6	83.6	20.4	20.4	20.4	20.4	20.4	20.4
Volume/Cap:	0.49	0.43	0.43	0.43	0.58	0.58	0.58	0.58	0.08	0.40	0.40	0.21
Uniform Del:	54.8	12.2	12.2	47.2	9.2	9.2	45.8	45.8	41.9	44.3	44.3	42.9
IncremntDel:	15.8	0.6	0.6	5.5	0.9	0.9	7.7	7.7	0.6	3.8	3.8	1.6
InitQueuDel:	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:	70.6	12.8	12.8	52.6	10.2	10.2	53.5	53.5	42.5	48.2	48.2	44.4
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:	70.6	12.8	12.8	52.6	10.2	10.2	53.5	53.5	42.5	48.2	48.2	44.4
LOS by Move:	E	B	B	D-	B+	B+	D-	D-	D	D	D	D
HCM2kAvgQ:	65	241	241	107	354	354	174	174	21	112	112	55

Note: Queue reported is the distance per lane in feet.

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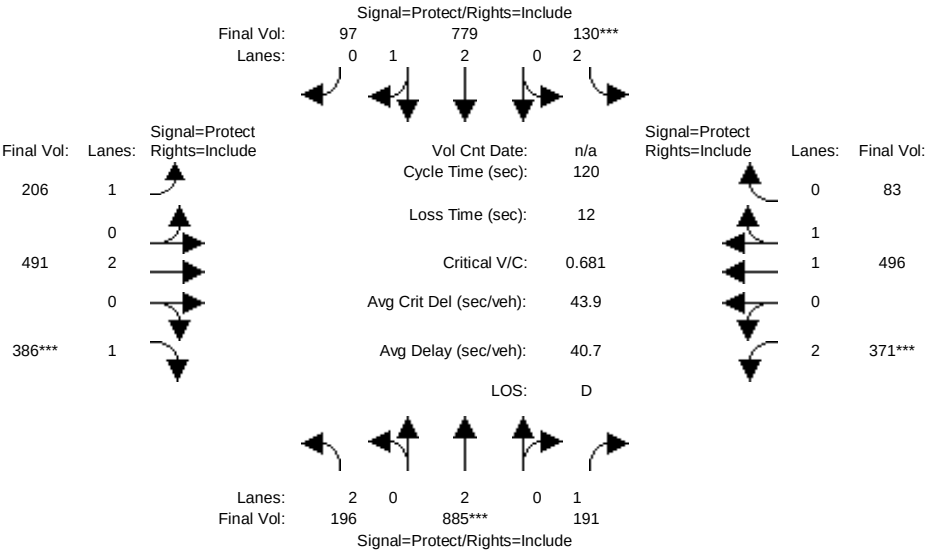
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #28: Wolfe Road/Homestead Road



Street Name:	Wolfe Road						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	196	853	169	130	726	97	206	491	386	309	496	83
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	196	853	169	130	726	97	206	491	386	309	496	83
Added Vol:	0	32	22	0	53	0	0	0	0	62	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	196	885	191	130	779	97	206	491	386	371	496	83
User Adj:	1.00	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:	196	885	191	130	779	97	206	491	386	371	496	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	196	885	191	130	779	97	206	491	386	371	496	83
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	196	885	191	130	779	97	206	491	386	371	496	83
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92	0.83	0.98	0.95
Lanes:	2.00	2.00	1.00	2.00	2.66	0.34	1.00	2.00	1.00	2.00	1.71	0.29
Final Sat.:	3150	3800	1750	3150	4979	620	1750	3800	1750	3150	3169	530
Capacity Analysis Module:												
Vol/Sat:	0.06	0.23	0.11	0.04	0.16	0.16	0.12	0.13	0.22	0.12	0.16	0.16
Crit Moves:		****		****					****	****		
Green Time:	13.8	41.1	41.1	7.3	34.6	34.6	25.6	38.9	38.9	20.8	34.0	34.0
Volume/Cap:	0.54	0.68	0.32	0.68	0.54	0.54	0.55	0.40	0.68	0.68	0.55	0.55
Uniform Del:	50.2	33.8	29.1	55.2	36.0	36.0	42.1	31.5	35.2	46.5	36.5	36.5
IncremntDel:	5.8	2.9	1.4	17.9	1.3	1.3	5.8	1.0	6.5	6.7	2.1	2.1
InitQueuDel:	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:	55.9	36.7	30.5	73.1	37.4	37.4	47.8	32.4	41.6	53.2	38.6	38.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	55.9	36.7	30.5	73.1	37.4	37.4	47.8	32.4	41.6	53.2	38.6	38.6
LOS by Move:	E+	D+	C	E	D+	D+	D	C-	D	D-	D+	D+
HCM2kAvgQ:	120	366	139	104	238	238	195	175	352	221	240	240

Note: Queue reported is the distance per lane in feet.

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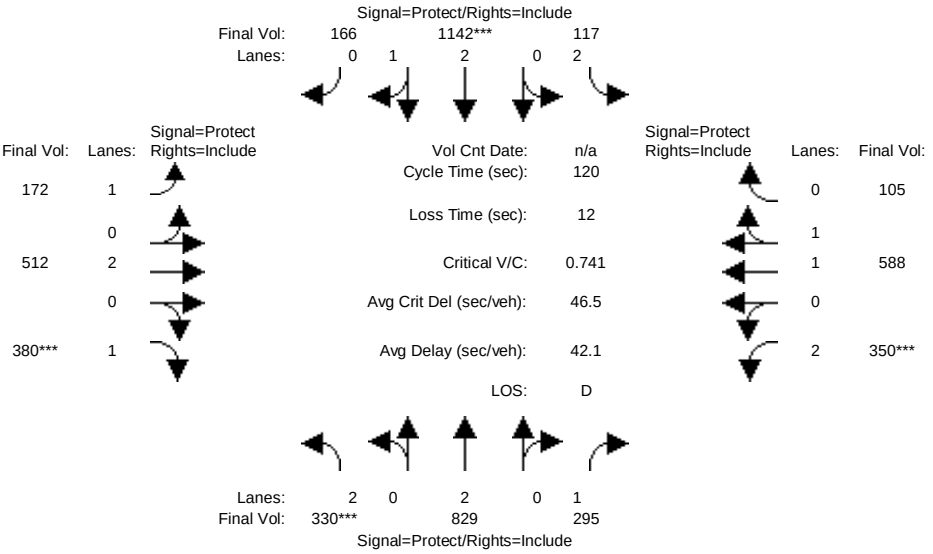
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #28: Wolfe Road/Homestead Road



Street Name:	Wolfe Road						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	330	631	163	117	960	166	172	512	380	137	588	105
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	330	631	163	117	960	166	172	512	380	137	588	105
Added Vol:	0	198	132	0	182	0	0	0	0	213	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	330	829	295	117	1142	166	172	512	380	350	588	105
User Adj:	1.00	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:	330	829	295	117	1142	166	172	512	380	350	588	105
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	330	829	295	117	1142	166	172	512	380	350	588	105
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	330	829	295	117	1142	166	172	512	380	350	588	105
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92	0.83	0.98	0.95
Lanes:	2.00	2.00	1.00	2.00	2.61	0.39	1.00	2.00	1.00	2.00	1.69	0.31
Final Sat.:	3150	3800	1750	3150	4888	711	1750	3800	1750	3150	3139	561
Capacity Analysis Module:												
Vol/Sat:	0.10	0.22	0.17	0.04	0.23	0.23	0.10	0.13	0.22	0.11	0.19	0.19
Crit Moves:	****				****				****	****		
Green Time:	17.0	43.3	43.3	11.6	37.8	37.8	18.3	35.2	35.2	18.0	34.9	34.9
Volume/Cap:	0.74	0.61	0.47	0.39	0.74	0.74	0.64	0.46	0.74	0.74	0.64	0.64
Uniform Del:	49.4	31.4	29.5	50.9	36.7	36.7	47.8	34.6	38.3	48.8	37.1	37.1
IncremntDel:	10.6	2.0	2.5	3.7	2.8	2.8	11.4	1.4	9.3	10.0	3.0	3.0
InitQueuDel:	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:	60.0	33.4	32.0	54.6	39.5	39.5	59.2	36.0	47.6	58.8	40.1	40.1
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:	60.0	33.4	32.0	54.6	39.5	39.5	59.2	36.0	47.6	58.8	40.1	40.1
LOS by Move:	E+	C-	C	D-	D	D	E+	D+	D	E+	D	D
HCM2kAvgQ:	216	319	227	70	394	394	187	195	373	225	301	301

Note: Queue reported is the distance per lane in feet.

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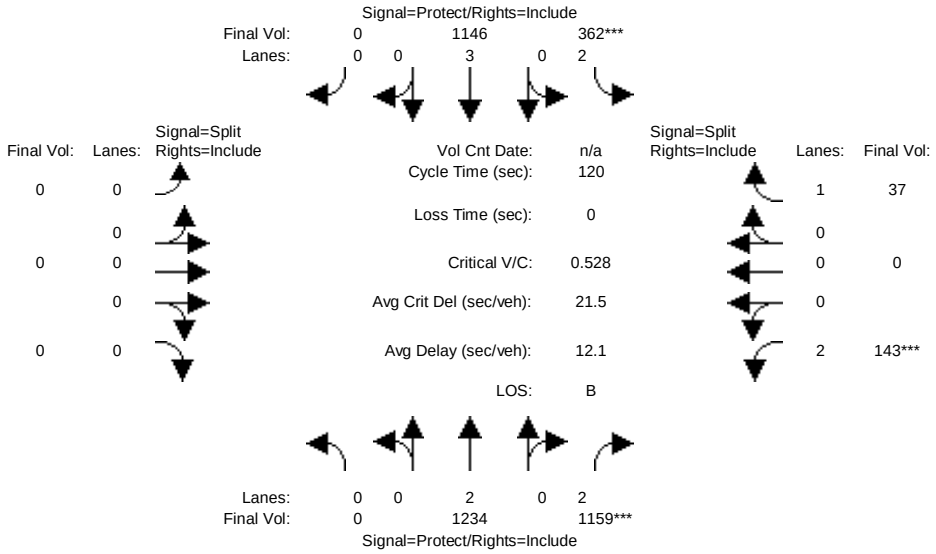
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #29: Wolfe Road/Apple Campus 2 Driveway



Street Name:	Wolfe Road						Apple Campus 2 Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	0	0	10	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1180	1159	362	1032	0	0	0	0	143	0	37
Growth Adj:	1.00	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	1180	1159	362	1032	0	0	0	0	143	0	37
Added Vol:	0	54	0	0	114	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1234	1159	362	1146	0	0	0	0	143	0	37
User Adj:	1.00	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	1234	1159	362	1146	0	0	0	0	143	0	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1234	1159	362	1146	0	0	0	0	143	0	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1234	1159	362	1146	0	0	0	0	143	0	37
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	2.00	2.00	2.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3800	3150	3150	5700	0	0	0	0	3150	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.32	0.37	0.11	0.20	0.00	0.00	0.00	0.00	0.05	0.00	0.02
Crit Moves:			****	****						****		
Green Time:	0.0	83.6	83.6	26.1	110	0.0	0.0	0.0	0.0	10.3	0.0	10.3
Volume/Cap:	0.00	0.47	0.53	0.53	0.22	0.00	0.00	0.00	0.00	0.53	0.00	0.25
Uniform Del:	0.0	8.2	8.7	41.5	0.6	0.0	0.0	0.0	0.0	52.5	0.0	51.2
IncremntDel:	0.0	0.6	0.9	2.9	0.1	0.0	0.0	0.0	0.0	7.2	0.0	3.9
InitQueuDel:	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	8.8	9.7	44.4	0.7	0.0	0.0	0.0	0.0	59.7	0.0	55.1
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	8.8	9.7	44.4	0.7	0.0	0.0	0.0	0.0	59.7	0.0	55.1
LOS by Move:	A	A	A	D	A	A	A	A	A	E+	A	E+
HCM2kAvgQ:	0	253	307	188	41	0	0	0	0	94	0	39

Note: Queue reported is the distance per lane in feet.

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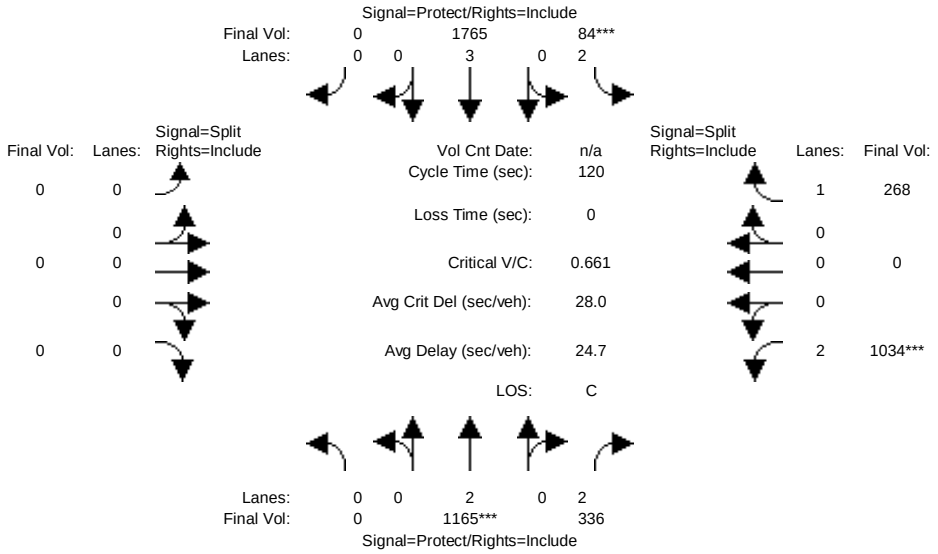
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #29: Wolfe Road/Apple Campus 2 Driveway



Street Name:	Wolfe Road						Apple Campus 2 Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	10	0	0	10	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	836	336	84	1370	0	0	0	0	1034	0	268
Growth Adj:	1.00	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	836	336	84	1370	0	0	0	0	1034	0	268
Added Vol:	0	329	0	0	395	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1165	336	84	1765	0	0	0	0	1034	0	268
User Adj:	1.00	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	1165	336	84	1765	0	0	0	0	1034	0	268
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1165	336	84	1765	0	0	0	0	1034	0	268
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1165	336	84	1765	0	0	0	0	1034	0	268
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	2.00	2.00	2.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3800	3150	3150	5700	0	0	0	0	3150	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.31	0.11	0.03	0.31	0.00	0.00	0.00	0.00	0.33	0.00	0.15
Crit Moves:		****		****						****		
Green Time:	0.0	55.6	55.6	4.8	60.5	0.0	0.0	0.0	0.0	59.5	0.0	59.5
Volume/Cap:	0.00	0.66	0.23	0.66	0.61	0.00	0.00	0.00	0.00	0.66	0.00	0.31
Uniform Del:	0.0	24.9	19.3	56.8	21.4	0.0	0.0	0.0	0.0	22.7	0.0	18.0
IncremntDel:	0.0	2.0	0.4	23.9	1.0	0.0	0.0	0.0	0.0	2.2	0.0	0.9
InitQueuDel:	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	26.9	19.7	80.7	22.4	0.0	0.0	0.0	0.0	24.9	0.0	18.9
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	26.9	19.7	80.7	22.4	0.0	0.0	0.0	0.0	24.9	0.0	18.9
LOS by Move:	A	C	B-	F	C+	A	A	A	A	C	A	B-
HCM2kAvgQ:	0	422	109	76	391	0	0	0	0	436	0	155

Note: Queue reported is the distance per lane in feet.

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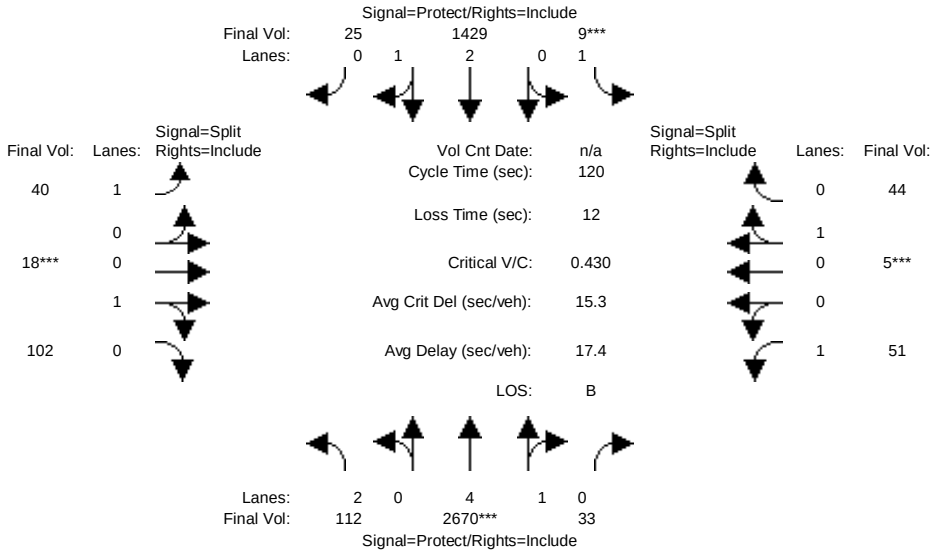
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #30: Wolfe Road/Pruneridge Avenue



Street Name:	Wolfe Road						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	112	2616	33	9	1315	25	40	18	102	51	5	44
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	112	2616	33	9	1315	25	40	18	102	51	5	44
Added Vol:	0	54	0	0	114	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	112	2670	33	9	1429	25	40	18	102	51	5	44
User Adj:	1.00	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:	112	2670	33	9	1429	25	40	18	102	51	5	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	112	2670	33	9	1429	25	40	18	102	51	5	44
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	112	2670	33	9	1429	25	40	18	102	51	5	44
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	2.00	4.94	0.06	1.00	2.95	0.05	1.00	0.15	0.85	1.00	0.10	0.90
Final Sat.:	3150	9285	115	1750	5504	96	1750	270	1530	1750	184	1616
Capacity Analysis Module:												
Vol/Sat:	0.04	0.29	0.29	0.01	0.26	0.26	0.02	0.07	0.07	0.03	0.03	0.03
Crit Moves:		****		****				****			****	
Green Time:	14.8	73.9	73.9	7.0	66.0	66.0	17.1	17.1	17.1	10.0	10.0	10.0
Volume/Cap:	0.29	0.47	0.47	0.09	0.47	0.47	0.16	0.47	0.47	0.35	0.33	0.33
Uniform Del:	47.8	12.4	12.4	53.5	16.4	16.4	45.1	47.2	47.2	51.9	51.8	51.8
IncremntDel:	1.9	0.3	0.3	1.7	0.5	0.5	1.4	6.0	6.0	6.5	5.7	5.7
InitQueuDel:	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:	49.6	12.7	12.7	55.2	16.9	16.9	46.5	53.2	53.2	58.4	57.5	57.5
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:	49.6	12.7	12.7	55.2	16.9	16.9	46.5	53.2	53.2	58.4	57.5	57.5
LOS by Move:	D	B	B	E+	B	B	D	D-	D-	E+	E+	E+
HCM2kAvgQ:	61	267	267	10	272	272	36	118	118	56	52	52

Note: Queue reported is the distance per lane in feet.

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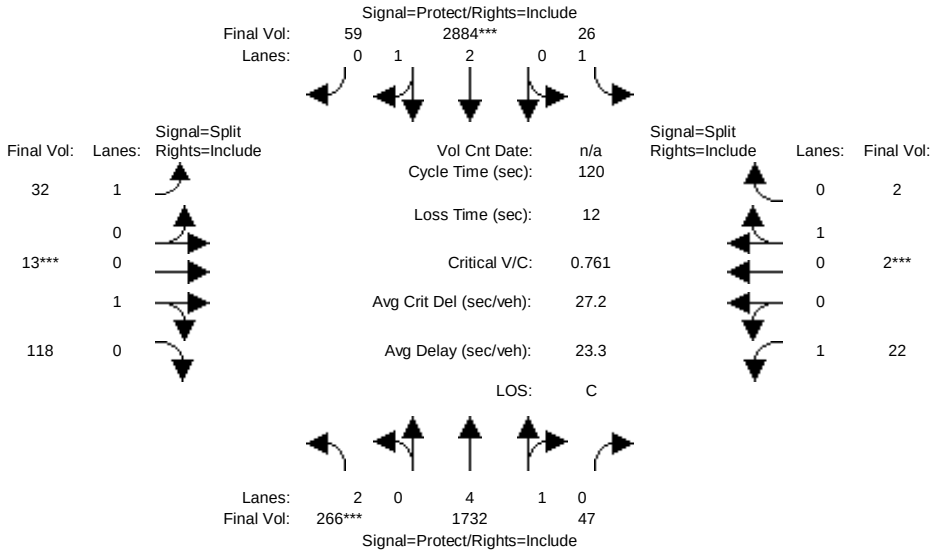
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #30: Wolfe Road/Pruneridge Avenue



Street Name:	Wolfe Road						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	266	1403	47	26	2489	59	32	13	118	22	2	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	266	1403	47	26	2489	59	32	13	118	22	2	2
Added Vol:	0	329	0	0	395	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	266	1732	47	26	2884	59	32	13	118	22	2	2
User Adj:	1.00	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:	266	1732	47	26	2884	59	32	13	118	22	2	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	266	1732	47	26	2884	59	32	13	118	22	2	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	266	1732	47	26	2884	59	32	13	118	22	2	2
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	2.00	4.86	0.14	1.00	2.94	0.06	1.00	0.10	0.90	1.00	0.50	0.50
Final Sat.:	3150	9151	248	1750	5488	112	1750	179	1621	1750	900	900
Capacity Analysis Module:												
Vol/Sat:	0.08	0.19	0.19	0.01	0.53	0.53	0.02	0.07	0.07	0.01	0.00	0.00
Crit Moves:	****				****			****			****	
Green Time:	12.1	66.9	66.9	20.6	75.4	75.4	10.4	10.4	10.4	10.0	10.0	10.0
Volume/Cap:	0.84	0.34	0.34	0.09	0.84	0.84	0.21	0.84	0.84	0.15	0.03	0.03
Uniform Del:	53.0	14.5	14.5	41.8	17.4	17.4	50.9	53.9	53.9	51.1	50.5	50.5
IncremntDel:	22.2	0.2	0.2	0.6	2.5	2.5	3.1	38.5	38.5	2.2	0.3	0.3
InitQueuDel:	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:	75.1	14.7	14.7	42.3	20.0	20.0	54.1	92.4	92.4	53.2	50.9	50.9
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:	75.1	14.7	14.7	42.3	20.0	20.0	54.1	92.4	92.4	53.2	50.9	50.9
LOS by Move:	E-	B	B	D	B-	B-	D-	F	F	D-	D	D
HCM2kAvgQ:	204	176	176	22	760	760	33	183	183	23	4	4

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
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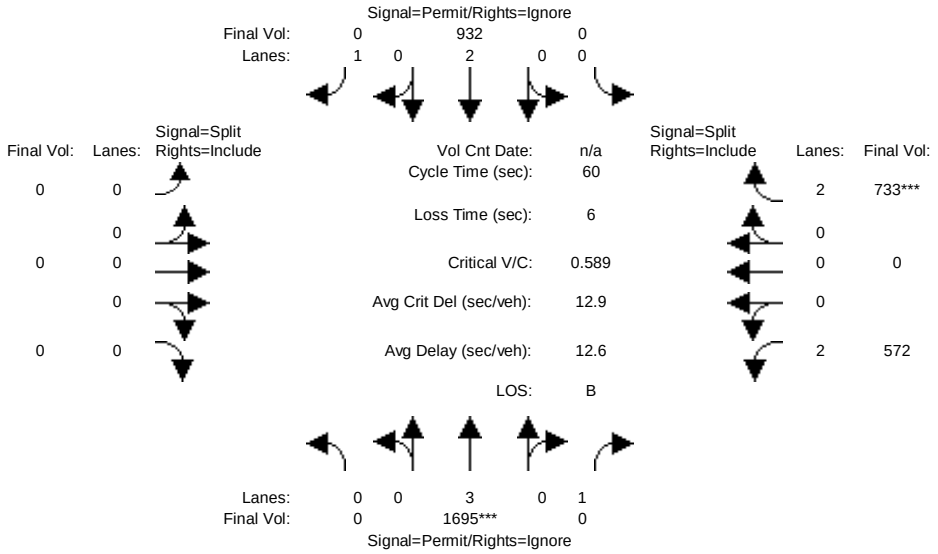
Intersection #31: Wolfe Road/I-280 Ramps North



Street Name:	Wolfe Road						I-280 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	0	10	10	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1641	525	0	818	471	0	0	0	506	0	733
Growth Adj:	1.00	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	1641	525	0	818	471	0	0	0	506	0	733
Added Vol:	0	54	22	0	114	0	0	0	0	66	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1695	547	0	932	471	0	0	0	572	0	733
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1695	0	0	932	0	0	0	0	572	0	733
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1695	0	0	932	0	0	0	0	572	0	733
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1695	0	0	932	0	0	0	0	572	0	733
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.83
Lanes:	0.00	3.00	1.00	0.00	2.00	1.00	0.00	0.00	0.00	2.00	0.00	2.00
Final Sat.:	0	5700	1750	0	3800	1750	0	0	0	3150	0	3150
Capacity Analysis Module:												
Vol/Sat:	0.00	0.30	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.18	0.00	0.23
Crit Moves:		****										****
Green Time:	0.0	30.3	0.0	0.0	30.3	0.0	0.0	0.0	0.0	23.7	0.0	23.7
Volume/Cap:	0.00	0.59	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.46	0.00	0.59
Uniform Del:	0.0	10.5	0.0	0.0	9.7	0.0	0.0	0.0	0.0	13.4	0.0	14.3
IncremntDel:	0.0	0.9	0.0	0.0	0.9	0.0	0.0	0.0	0.0	1.2	0.0	2.0
InitQueuDel:	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	1.00	0.00	1.00
Delay/Veh:	0.0	11.4	0.0	0.0	10.6	0.0	0.0	0.0	0.0	14.6	0.0	16.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	11.4	0.0	0.0	10.6	0.0	0.0	0.0	0.0	14.6	0.0	16.4
LOS by Move:	A	B+	A	A	B+	A	A	A	A	B	A	B
HCM2kAvgQ:	0	201	0	0	151	0	0	0	0	127	0	180

Note: Queue reported is the distance per lane in feet.

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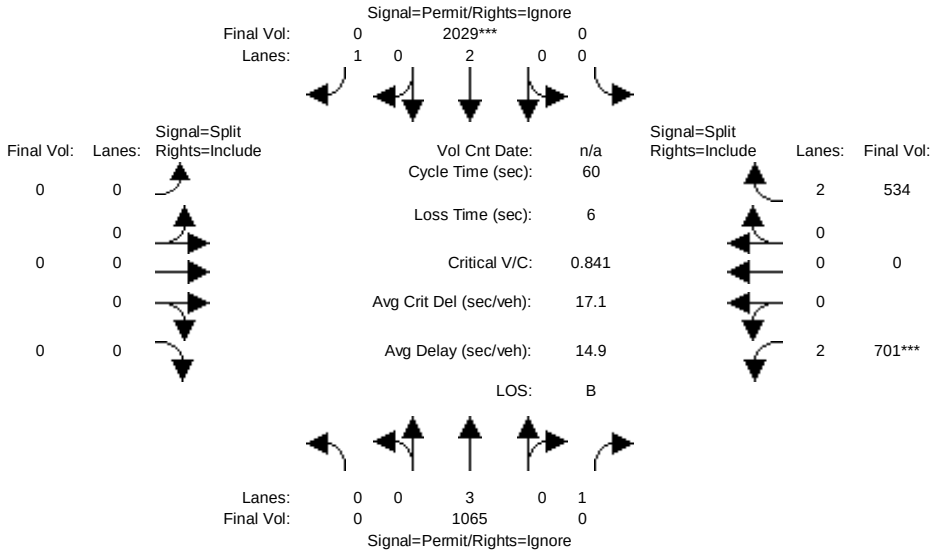
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #31: Wolfe Road/I-280 Ramps North



Street Name:	Wolfe Road						I-280 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	0	10	10	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	736	829	0	1634	927	0	0	0	473	0	534
Growth Adj:	1.00	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	736	829	0	1634	927	0	0	0	473	0	534
Added Vol:	0	329	132	0	395	0	0	0	0	228	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1065	961	0	2029	927	0	0	0	701	0	534
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1065	0	0	2029	0	0	0	0	701	0	534
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1065	0	0	2029	0	0	0	0	701	0	534
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1065	0	0	2029	0	0	0	0	701	0	534
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.83
Lanes:	0.00	3.00	1.00	0.00	2.00	1.00	0.00	0.00	0.00	2.00	0.00	2.00
Final Sat.:	0	5700	1750	0	3800	1750	0	0	0	3150	0	3150
Capacity Analysis Module:												
Vol/Sat:	0.00	0.19	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.22	0.00	0.17
Crit Moves:					****					****		
Green Time:	0.0	38.1	0.0	0.0	38.1	0.0	0.0	0.0	0.0	15.9	0.0	15.9
Volume/Cap:	0.00	0.29	0.00	0.00	0.84	0.00	0.00	0.00	0.00	0.84	0.00	0.64
Uniform Del:	0.0	4.9	0.0	0.0	8.6	0.0	0.0	0.0	0.0	20.9	0.0	19.5
IncremntDel:	0.0	0.2	0.0	0.0	3.7	0.0	0.0	0.0	0.0	10.0	0.0	3.8
InitQueuDel:	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	1.00	0.00	1.00
Delay/Veh:	0.0	5.1	0.0	0.0	12.3	0.0	0.0	0.0	0.0	30.8	0.0	23.3
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	5.1	0.0	0.0	12.3	0.0	0.0	0.0	0.0	30.8	0.0	23.3
LOS by Move:	A	A	A	A	B	A	A	A	A	C	A	C
HCM2kAvgQ:	0	77	0	0	442	0	0	0	0	262	0	160

Note: Queue reported is the distance per lane in feet.

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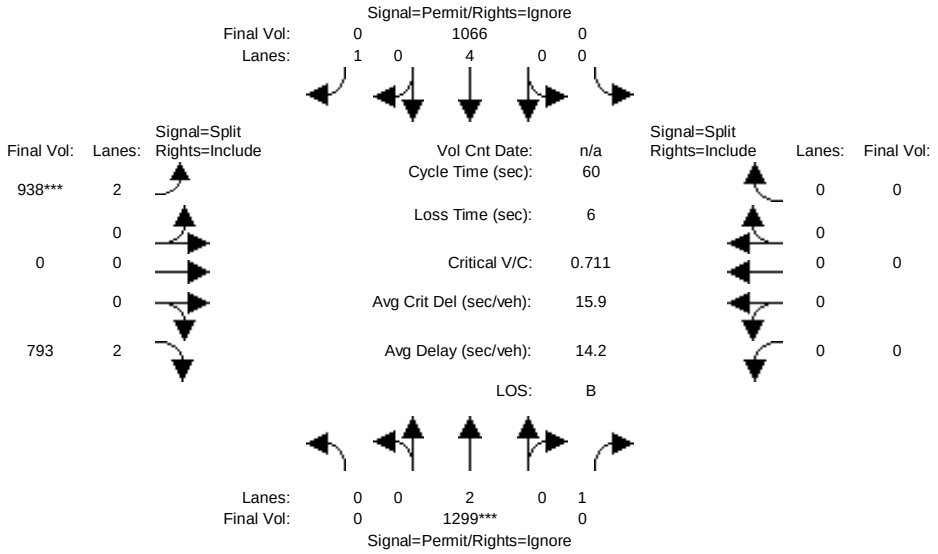
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #32: Wolfe Road/I-280 Ramps South



Street Name:	Wolfe Road						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	0	10	10	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1223	384	0	886	429	938	0	758	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1223	384	0	886	429	938	0	758	0	0	0
Added Vol:	0	76	20	0	180	0	0	0	35	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1299	404	0	1066	429	938	0	793	0	0	0
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1299	0	0	1066	0	938	0	793	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1299	0	0	1066	0	938	0	793	0	0	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1299	0	0	1066	0	938	0	793	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.83	0.92	1.00	0.92
Lanes:	0.00	2.00	1.00	0.00	4.00	1.00	2.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	0	3800	1750	0	7600	1750	3150	0	3150	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.34	0.00	0.00	0.14	0.00	0.30	0.00	0.25	0.00	0.00	0.00
Crit Moves:		****					****					
Green Time:	0.0	28.9	0.0	0.0	28.9	0.0	25.1	0.0	25.1	0.0	0.0	0.0
Volume/Cap:	0.00	0.71	0.00	0.00	0.29	0.00	0.71	0.00	0.60	0.00	0.00	0.00
Uniform Del:	0.0	12.3	0.0	0.0	9.4	0.0	14.4	0.0	13.5	0.0	0.0	0.0
IncremntDel:	0.0	2.4	0.0	0.0	0.2	0.0	3.3	0.0	2.0	0.0	0.0	0.0
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	14.7	0.0	0.0	9.6	0.0	17.7	0.0	15.6	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:	0.0	14.7	0.0	0.0	9.6	0.0	17.7	0.0	15.6	0.0	0.0	0.0
LOS by Move:	A	B	A	A	A	A	B	A	B	A	A	A
HCM2kAvgQ:	0	271	0	0	77	0	252	0	191	0	0	0

Note: Queue reported is the distance per lane in feet.

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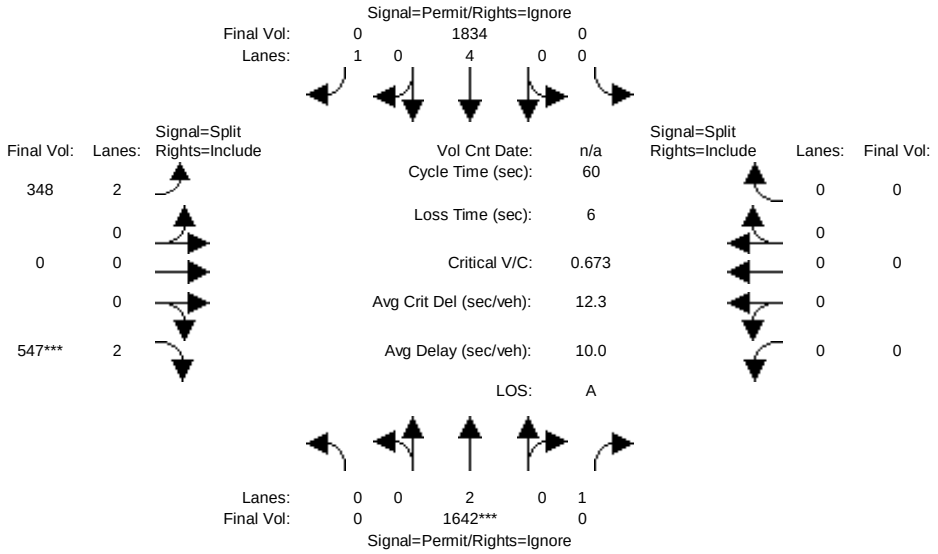
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #32: Wolfe Road/I-280 Ramps South



Street Name:	Wolfe Road						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	0	10	10	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1181	537	0	1211	858	348	0	425	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1181	537	0	1211	858	348	0	425	0	0	0
Added Vol:	0	461	123	0	623	0	0	0	122	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1642	660	0	1834	858	348	0	547	0	0	0
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1642	0	0	1834	0	348	0	547	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1642	0	0	1834	0	348	0	547	0	0	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1642	0	0	1834	0	348	0	547	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.83	0.92	1.00	0.92
Lanes:	0.00	2.00	1.00	0.00	4.00	1.00	2.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	0	3800	1750	0	7600	1750	3150	0	3150	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.43	0.00	0.00	0.24	0.00	0.11	0.00	0.17	0.00	0.00	0.00
Crit Moves:		****							****			
Green Time:	0.0	38.5	0.0	0.0	38.5	0.0	15.5	0.0	15.5	0.0	0.0	0.0
Volume/Cap:	0.00	0.67	0.00	0.00	0.38	0.00	0.43	0.00	0.67	0.00	0.00	0.00
Uniform Del:	0.0	6.8	0.0	0.0	5.1	0.0	18.6	0.0	20.0	0.0	0.0	0.0
IncremntDel:	0.0	1.5	0.0	0.0	0.2	0.0	1.6	0.0	4.4	0.0	0.0	0.0
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	8.3	0.0	0.0	5.3	0.0	20.2	0.0	24.4	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:	0.0	8.3	0.0	0.0	5.3	0.0	20.2	0.0	24.4	0.0	0.0	0.0
LOS by Move:	A	A	A	A	A	A	C+	A	C	A	A	A
HCM2kAvgQ:	0	265	0	0	105	0	91	0	170	0	0	0

Note: Queue reported is the distance per lane in feet.

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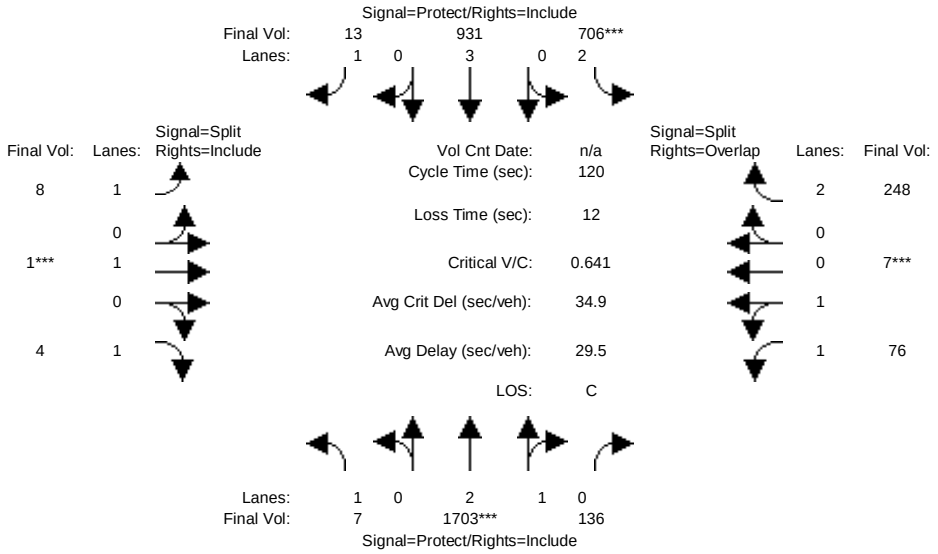
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #33: Wolfe Road/Vallco Parkway



Street Name:	Wolfe Road						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	7	1703	136	706	931	13	8	1	4	76	7	248
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	7	1703	136	706	931	13	8	1	4	76	7	248
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:	7	1703	136	706	931	13	8	1	4	76	7	248
User Adj:	1.00	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:	7	1703	136	706	931	13	8	1	4	76	7	248
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	1703	136	706	931	13	8	1	4	76	7	248
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	7	1703	136	706	931	13	8	1	4	76	7	248
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.83
Lanes:	1.00	2.77	0.23	2.00	3.00	1.00	1.00	1.00	1.00	1.83	0.17	2.00
Final Sat.:	1750	5185	414	3150	5700	1750	1750	1900	1750	3251	299	3150
Capacity Analysis Module:												
Vol/Sat:	0.00	0.33	0.33	0.22	0.16	0.01	0.00	0.00	0.00	0.02	0.02	0.08
Crit Moves:		****		****				****			****	
Green Time:	23.2	52.3	52.3	35.7	64.8	64.8	10.0	10.0	10.0	10.0	10.0	45.7
Volume/Cap:	0.02	0.75	0.75	0.75	0.30	0.01	0.05	0.01	0.03	0.28	0.28	0.21
Uniform Del:	39.2	28.4	28.4	38.2	15.2	12.8	50.6	50.4	50.5	51.6	51.6	25.0
IncremntDel:	0.1	2.2	2.2	5.6	0.3	0.0	0.7	0.1	0.3	2.4	2.4	0.4
InitQueuDel:	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:	39.3	30.6	30.6	43.8	15.4	12.8	51.4	50.5	50.9	54.0	54.0	25.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.3	30.6	30.6	43.8	15.4	12.8	51.4	50.5	50.9	54.0	54.0	25.4
LOS by Move:	D	C	C	D	B	B	D-	D	D	D-	D-	C
HCM2kAvgQ:	5	486	486	383	157	6	8	1	4	38	38	91

Note: Queue reported is the distance per lane in feet.

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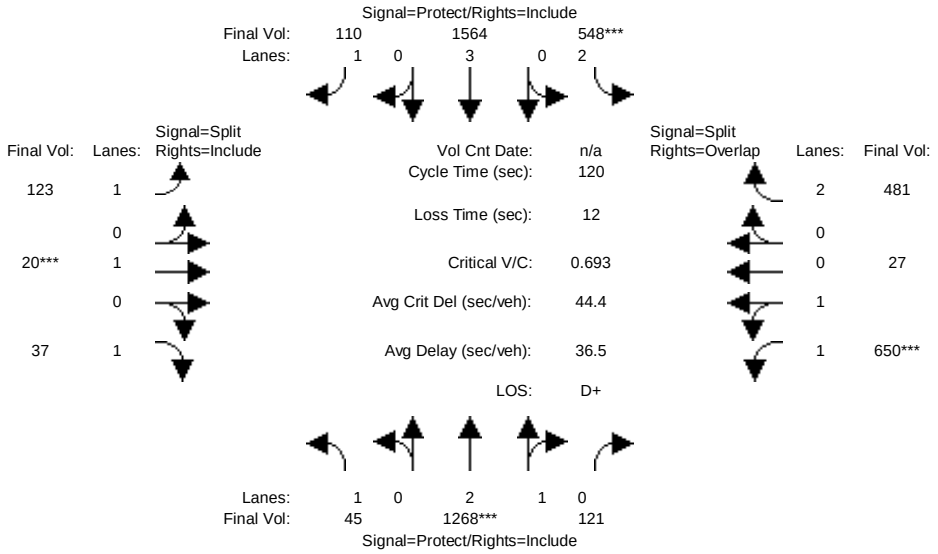
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #33: Wolfe Road/Vallco Parkway



Street Name:	Wolfe Road						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	45	1268	121	548	1564	110	123	20	37	650	27	481
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	1268	121	548	1564	110	123	20	37	650	27	481
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:	45	1268	121	548	1564	110	123	20	37	650	27	481
User Adj:	1.00	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:	45	1268	121	548	1564	110	123	20	37	650	27	481
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	1268	121	548	1564	110	123	20	37	650	27	481
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	45	1268	121	548	1564	110	123	20	37	650	27	481
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.83
Lanes:	1.00	2.73	0.27	2.00	3.00	1.00	1.00	1.00	1.00	1.92	0.08	2.00
Final Sat.:	1750	5112	488	3150	5700	1750	1750	1900	1750	3408	142	3150
Capacity Analysis Module:												
Vol/Sat:	0.03	0.25	0.25	0.17	0.27	0.06	0.07	0.01	0.02	0.19	0.19	0.15
Crit Moves:		****		****				****		****		
Green Time:	11.6	38.8	38.8	27.2	54.4	54.4	12.2	12.2	12.2	29.8	29.8	57.0
Volume/Cap:	0.27	0.77	0.77	0.77	0.60	0.14	0.69	0.10	0.21	0.77	0.77	0.32
Uniform Del:	50.3	36.5	36.5	43.4	24.7	19.1	52.1	49.0	49.5	41.9	41.9	19.5
IncremntDel:	3.8	3.2	3.2	7.7	1.1	0.4	19.9	1.1	2.6	6.3	6.3	0.6
InitQueuDel:	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:	54.1	39.7	39.7	51.2	25.8	19.5	72.0	50.0	52.1	48.2	48.2	20.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.1	39.7	39.7	51.2	25.8	19.5	72.0	50.0	52.1	48.2	48.2	20.1
LOS by Move:	D-	D	D	D-	C	B-	E	D	D-	D	D	C+
HCM2kAvgQ:	39	384	384	308	370	63	153	18	37	331	331	163

Note: Queue reported is the distance per lane in feet.

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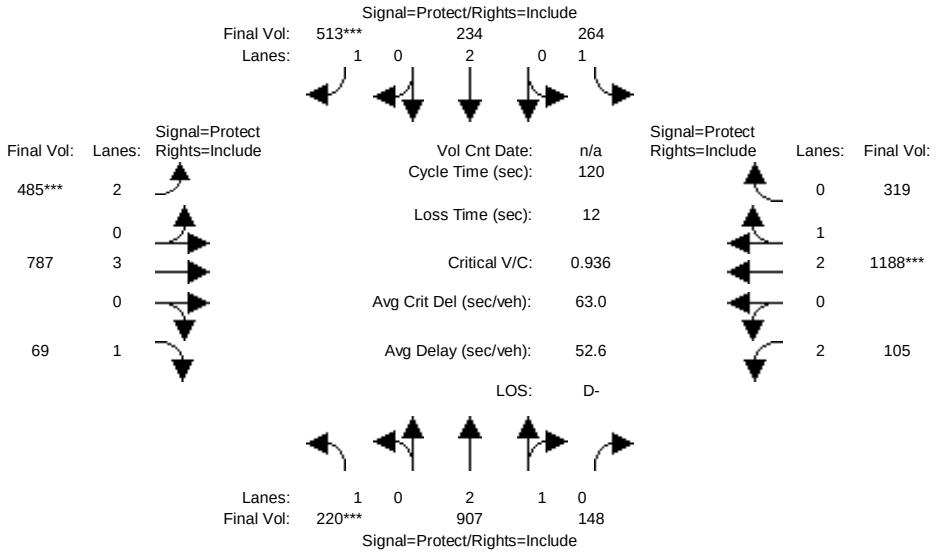
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #34: Wolfe Road/Stevens Creek Boulevard



Street Name:	Wolfe Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	220	907	148	264	234	513	485	787	69	105	1188	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:	220	907	148	264	234	513	485	787	69	105	1188	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:	220	907	148	264	234	513	485	787	69	105	1188	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:	220	907	148	264	234	513	485	787	69	105	1188	319
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	220	907	148	264	234	513	485	787	69	105	1188	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:	220	907	148	264	234	513	485	787	69	105	1188	319
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	1.00	0.92	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	1.00	2.56	0.44	1.00	2.00	1.00	2.00	3.00	1.00	2.00	2.34	0.66
Final Sat.:	1750	4813	785	1750	3800	1750	3150	5700	1750	3150	4413	1185
Capacity Analysis Module:												
Vol/Sat:	0.13	0.19	0.19	0.15	0.06	0.29	0.15	0.14	0.04	0.03	0.27	0.27
Crit Moves:	****					****	****				****	
Green Time:	16.1	29.8	29.8	23.9	37.6	37.6	19.7	38.2	38.2	16.1	34.5	34.5
Volume/Cap:	0.94	0.76	0.76	0.76	0.20	0.94	0.94	0.43	0.12	0.25	0.94	0.94
Uniform Del:	51.4	41.7	41.7	45.3	30.1	40.0	49.5	32.4	29.1	46.5	41.7	41.7
IncremntDel:	44.1	3.9	3.9	14.3	0.4	25.4	26.4	0.8	0.5	1.4	11.6	11.6
InitQueuDel:	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:	95.5	45.6	45.6	59.6	30.5	65.4	75.9	33.1	29.5	47.9	53.2	53.2
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:	95.5	45.6	45.6	59.6	30.5	65.4	75.9	33.1	29.5	47.9	53.2	53.2
LOS by Move:	F	D	D	E+	C	E	E-	C-	C	D	D-	D-
HCM2kAvgQ:	310	342	342	271	77	601	329	191	48	55	568	568

Note: Queue reported is the distance per lane in feet.

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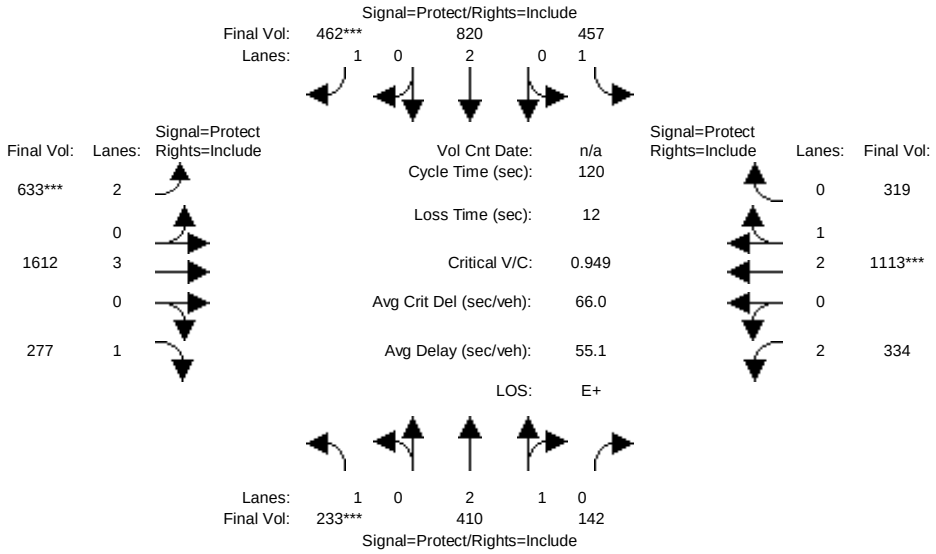
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #34: Wolfe Road/Stevens Creek Boulevard



Street Name:	Wolfe Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	233	410	142	457	820	462	633	1612	277	334	1113	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:	233	410	142	457	820	462	633	1612	277	334	1113	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:	233	410	142	457	820	462	633	1612	277	334	1113	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:	233	410	142	457	820	462	633	1612	277	334	1113	319
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	233	410	142	457	820	462	633	1612	277	334	1113	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:	233	410	142	457	820	462	633	1612	277	334	1113	319
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	1.00	0.92	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	1.00	2.20	0.80	1.00	2.00	1.00	2.00	3.00	1.00	2.00	2.31	0.69
Final Sat.:	1750	4158	1440	1750	3800	1750	3150	5700	1750	3150	4351	1247
Capacity Analysis Module:												
Vol/Sat:	0.13	0.10	0.10	0.26	0.22	0.26	0.20	0.28	0.16	0.11	0.26	0.26
Crit Moves:	****					****	****				****	
Green Time:	16.8	13.8	13.8	36.5	33.4	33.4	25.4	42.0	42.0	15.8	32.4	32.4
Volume/Cap:	0.95	0.86	0.86	0.86	0.78	0.95	0.95	0.81	0.45	0.81	0.95	0.95
Uniform Del:	51.2	52.2	52.2	39.4	39.9	42.5	46.6	35.3	30.1	50.7	43.0	43.0
IncremntDel:	45.6	14.0	14.0	16.4	5.6	29.8	24.3	3.6	2.4	15.5	13.8	13.8
InitQueuDel:	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:	96.7	66.2	66.2	55.8	45.4	72.3	71.0	39.0	32.5	66.2	56.8	56.8
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:	96.7	66.2	66.2	55.8	45.4	72.3	71.0	39.0	32.5	66.2	56.8	56.8
LOS by Move:	F	E	E	E+	D	E	E	D+	C-	E	E+	E+
HCM2kAvgQ:	330	236	236	473	366	537	413	475	209	234	556	556

Note: Queue reported is the distance per lane in feet.

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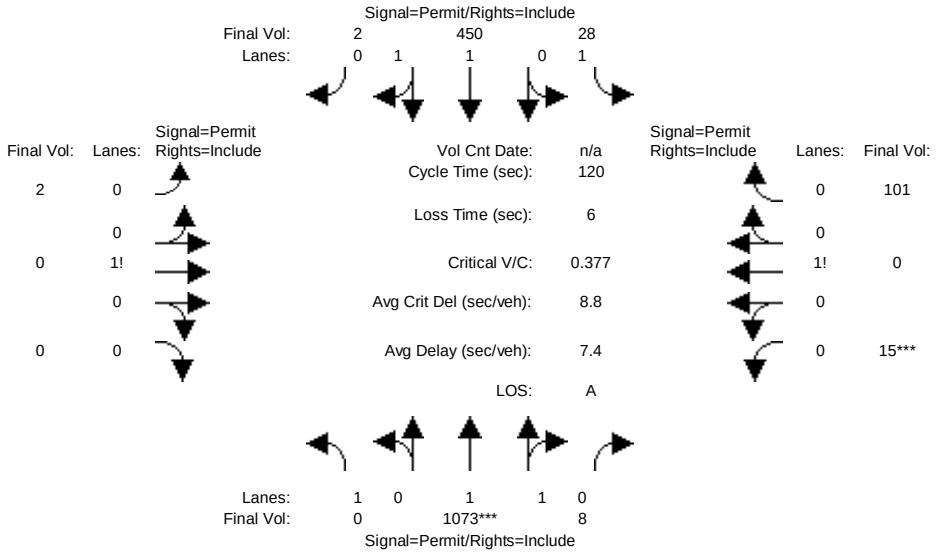
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #35: Miller Avenue/Calle De Barcelona



Street Name:	Miller Avenue						Calle De Barcelona					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1033	8	28	426	2	2	0	0	15	0	101
Growth Adj:	1.00	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	1033	8	28	426	2	2	0	0	15	0	101
Added Vol:	0	40	0	0	24	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1073	8	28	450	2	2	0	0	15	0	101
User Adj:	1.00	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	1073	8	28	450	2	2	0	0	15	0	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1073	8	28	450	2	2	0	0	15	0	101
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1073	8	28	450	2	2	0	0	15	0	101
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	1.98	0.02	1.00	1.99	0.01	1.00	0.00	0.00	0.13	0.00	0.87
Final Sat.:	1750	3673	27	1750	3684	16	1750	0	0	226	0	1524
Capacity Analysis Module:												
Vol/Sat:	0.00	0.29	0.29	0.02	0.12	0.12	0.00	0.00	0.00	0.07	0.00	0.07
Crit Moves:		****								****		
Green Time:	0.0	92.9	92.9	92.9	92.9	92.9	21.1	0.0	0.0	21.1	0.0	21.1
Volume/Cap:	0.00	0.38	0.38	0.02	0.16	0.16	0.01	0.00	0.00	0.38	0.00	0.38
Uniform Del:	0.0	4.3	4.3	3.1	3.5	3.5	40.8	0.0	0.0	43.7	0.0	43.7
IncremntDel:	0.0	0.4	0.4	0.0	0.1	0.1	0.0	0.0	0.0	3.5	0.0	3.5
InitQueuDel:	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	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	4.7	4.7	3.1	3.6	3.6	40.9	0.0	0.0	47.2	0.0	47.2
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	4.7	4.7	3.1	3.6	3.6	40.9	0.0	0.0	47.2	0.0	47.2
LOS by Move:	A	A	A	A	A	A	D	A	A	D	A	D
HCM2kAvgQ:	0	163	163	6	54	54	2	0	0	107	0	107

Note: Queue reported is the distance per lane in feet.

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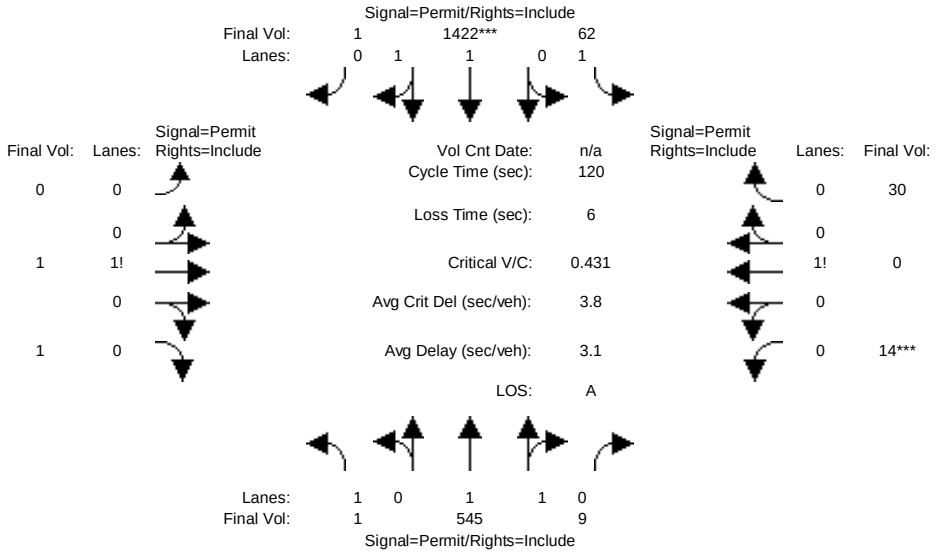
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #35: Miller Avenue/Calle De Barcelona



Street Name:	Miller Avenue						Calle De Barcelona					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	1	408	9	62	1274	1	0	1	1	14	0	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	408	9	62	1274	1	0	1	1	14	0	30
Added Vol:	0	137	0	0	148	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	545	9	62	1422	1	0	1	1	14	0	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	545	9	62	1422	1	0	1	1	14	0	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	545	9	62	1422	1	0	1	1	14	0	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:	1	545	9	62	1422	1	0	1	1	14	0	30
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	1.00	1.97	0.03	1.00	1.99	0.01	0.00	0.50	0.50	0.32	0.00	0.68
Final Sat.:	1750	3640	60	1750	3697	3	0	900	900	557	0	1193
Capacity Analysis Module:												
Vol/Sat:	0.00	0.15	0.15	0.04	0.38	0.38	0.00	0.00	0.00	0.03	0.00	0.03
Crit Moves:					****					****		
Green Time:	104.0	104	104.0	104.0	104	104.0	0.0	10.0	10.0	10.0	0.0	10.0
Volume/Cap:	0.00	0.17	0.17	0.04	0.44	0.44	0.00	0.01	0.01	0.30	0.00	0.30
Uniform Del:	1.1	1.3	1.3	1.1	1.7	1.7	0.0	50.5	50.5	51.7	0.0	51.7
IncremntDel:	0.0	0.1	0.1	0.1	0.4	0.4	0.0	0.2	0.2	5.2	0.0	5.2
InitQueuDel:	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	0.00	1.00	1.00	1.00	0.00	1.00
Delay/Veh:	1.1	1.4	1.4	1.2	2.2	2.2	0.0	50.6	50.6	57.0	0.0	57.0
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:	1.1	1.4	1.4	1.2	2.2	2.2	0.0	50.6	50.6	57.0	0.0	57.0
LOS by Move:	A	A	A	A	A	A	A	D	D	E+	A	E+
HCM2kAvgQ:	0	42	42	9	152	152	0	2	2	48	0	48

Note: Queue reported is the distance per lane in feet.

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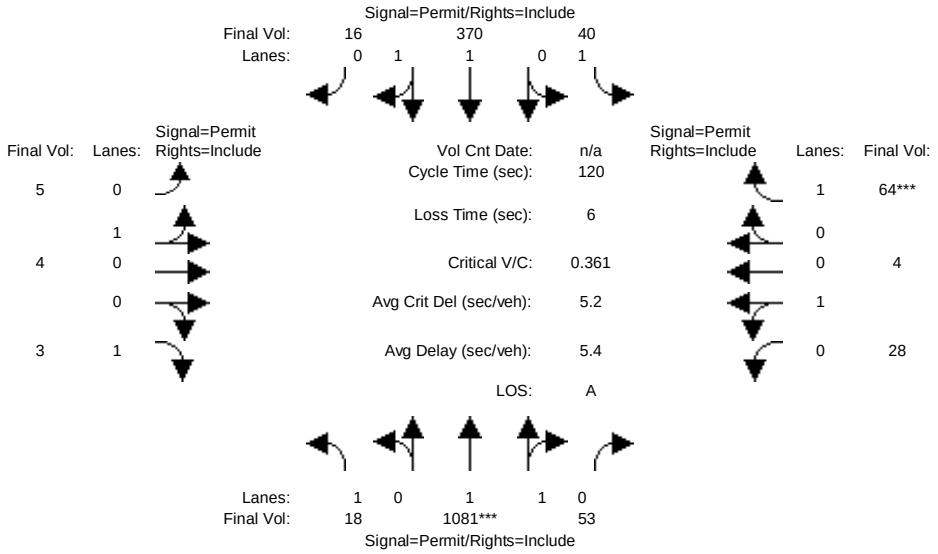
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #36: Miller Avenue/Phil Lane



Street Name:	Miller Avenue						Phil Lane					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	18	1041	53	40	346	16	5	4	3	28	4	64
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	1041	53	40	346	16	5	4	3	28	4	64
Added Vol:	0	40	0	0	24	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	1081	53	40	370	16	5	4	3	28	4	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:	18	1081	53	40	370	16	5	4	3	28	4	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	1081	53	40	370	16	5	4	3	28	4	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:	18	1081	53	40	370	16	5	4	3	28	4	64
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.90	0.10	1.00	1.91	0.09	0.56	0.44	1.00	0.87	0.13	1.00
Final Sat.:	1750	3527	173	1750	3547	153	1000	800	1750	1575	225	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.31	0.31	0.02	0.10	0.10	0.01	0.01	0.00	0.02	0.02	0.04
Crit Moves:		****										****
Green Time:	101.8	102	101.8	101.8	102	101.8	12.2	12.2	12.2	12.2	12.2	12.2
Volume/Cap:	0.01	0.36	0.36	0.03	0.12	0.12	0.05	0.05	0.02	0.18	0.18	0.36
Uniform Del:	1.4	2.0	2.0	1.4	1.5	1.5	48.7	48.7	48.5	49.3	49.3	50.3
IncremntDel:	0.0	0.3	0.3	0.0	0.1	0.1	0.5	0.5	0.2	2.1	2.1	5.6
InitQueuDel:	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:	1.4	2.3	2.3	1.4	1.6	1.6	49.2	49.2	48.7	51.4	51.4	55.9
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:	1.4	2.3	2.3	1.4	1.6	1.6	49.2	49.2	48.7	51.4	51.4	55.9
LOS by Move:	A	A	A	A	A	A	D	D	D	D-	D-	E+
HCM2kAvgQ:	3	120	120	6	31	31	8	8	3	31	31	68

Note: Queue reported is the distance per lane in feet.

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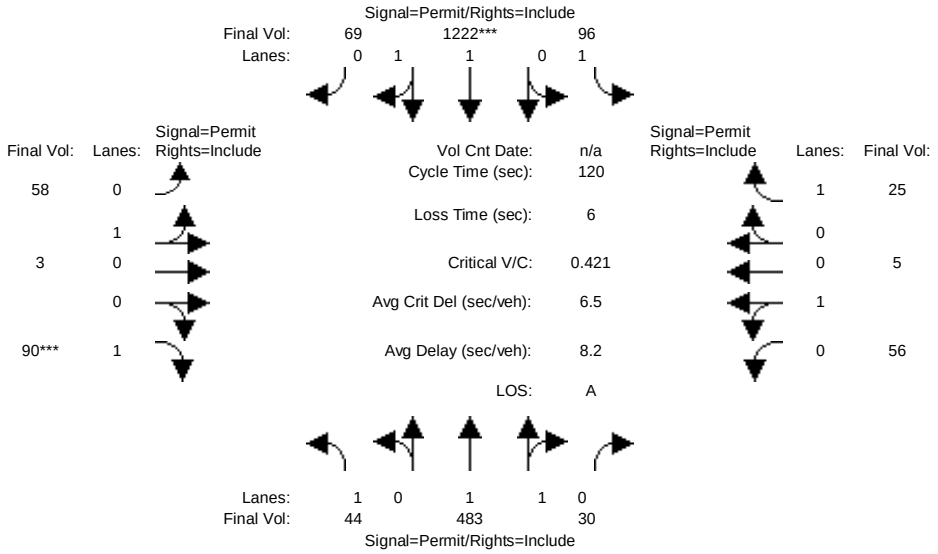
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #36: Miller Avenue/Phil Lane



Street Name:	Miller Avenue						Phil Lane					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	44	346	30	96	1074	69	58	3	90	56	5	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	44	346	30	96	1074	69	58	3	90	56	5	25
Added Vol:	0	137	0	0	148	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	483	30	96	1222	69	58	3	90	56	5	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:	44	483	30	96	1222	69	58	3	90	56	5	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	483	30	96	1222	69	58	3	90	56	5	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:	44	483	30	96	1222	69	58	3	90	56	5	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.88	0.12	1.00	1.89	0.11	0.95	0.05	1.00	0.92	0.08	1.00
Final Sat.:	1750	3483	216	1750	3502	198	1711	89	1750	1652	148	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.14	0.14	0.05	0.35	0.35	0.03	0.03	0.05	0.03	0.03	0.01
Crit Moves:					****				****			
Green Time:	99.4	99.4	99.4	99.4	99.4	99.4	14.6	14.6	14.6	14.6	14.6	14.6
Volume/Cap:	0.03	0.17	0.17	0.07	0.42	0.42	0.28	0.28	0.42	0.28	0.28	0.12
Uniform Del:	1.8	2.1	2.1	1.9	2.7	2.7	47.9	47.9	48.8	47.9	47.9	46.9
IncremntDel:	0.0	0.1	0.1	0.1	0.4	0.4	3.1	3.1	6.0	3.1	3.1	1.1
InitQueuDel:	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:	1.9	2.2	2.2	2.0	3.2	3.2	51.0	51.0	54.8	51.0	51.0	48.0
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:	1.9	2.2	2.2	2.0	3.2	3.2	51.0	51.0	54.8	51.0	51.0	48.0
LOS by Move:	A	A	A	A	A	A	D	D	D-	D	D	D
HCM2kAvgQ:	8	49	49	18	164	164	58	58	93	58	58	23

Note: Queue reported is the distance per lane in feet.

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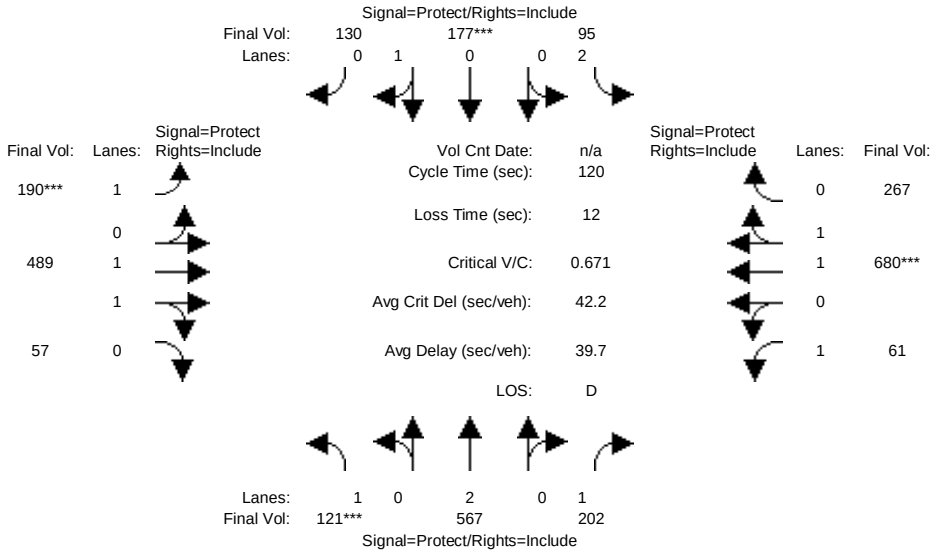
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #37: Miller Avenue/Bollinger Road



Street Name:	Miller Avenue						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	121	543	202	91	162	125	181	489	57	61	680	260
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	121	543	202	91	162	125	181	489	57	61	680	260
Added Vol:	0	24	0	4	15	5	9	0	0	0	0	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	121	567	202	95	177	130	190	489	57	61	680	267
User Adj:	1.00	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:	121	567	202	95	177	130	190	489	57	61	680	267
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	121	567	202	95	177	130	190	489	57	61	680	267
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	121	567	202	95	177	130	190	489	57	61	680	267
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	2.00	1.00	2.00	0.58	0.42	1.00	1.79	0.21	1.00	1.42	0.58
Final Sat.:	1750	3800	1750	3150	1038	762	1750	3313	386	1750	2656	1043
Capacity Analysis Module:												
Vol/Sat:	0.07	0.15	0.12	0.03	0.17	0.17	0.11	0.15	0.15	0.03	0.26	0.26
Crit Moves:	****				****		****				****	
Green Time:	12.4	30.8	30.8	12.0	30.5	30.5	19.4	46.7	46.7	18.5	45.8	45.8
Volume/Cap:	0.67	0.58	0.45	0.30	0.67	0.67	0.67	0.38	0.38	0.23	0.67	0.67
Uniform Del:	51.9	39.0	37.5	50.1	40.3	40.3	47.3	26.3	26.3	44.5	30.9	30.9
IncremntDel:	18.2	2.5	3.2	2.4	7.6	7.6	12.0	0.8	0.8	1.9	2.6	2.6
InitQueuDel:	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:	70.0	41.5	40.7	52.5	47.9	47.9	59.3	27.0	27.0	46.5	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:	70.0	41.5	40.7	52.5	47.9	47.9	59.3	27.0	27.0	46.5	33.4	33.4
LOS by Move:	E	D	D	D-	D	D	E+	C	C	D	C-	C-
HCM2kAvgQ:	148	239	174	55	290	290	206	183	183	56	385	385

Note: Queue reported is the distance per lane in feet.

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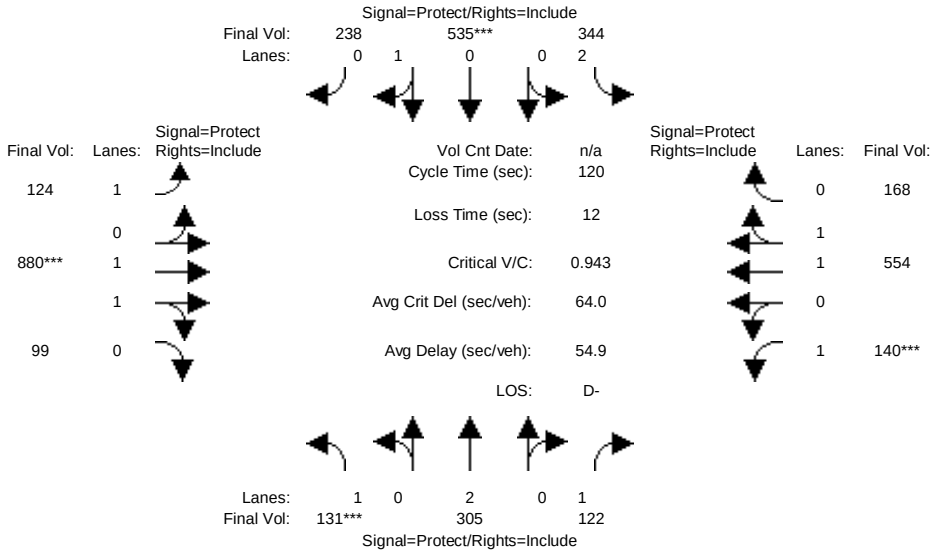
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #37: Miller Avenue/Bollinger Road



Street Name:	Miller Avenue						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	131	223	122	318	446	205	94	880	99	140	554	144
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	131	223	122	318	446	205	94	880	99	140	554	144
Added Vol:	0	82	0	26	89	33	30	0	0	0	0	24
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	131	305	122	344	535	238	124	880	99	140	554	168
User Adj:	1.00	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	305	122	344	535	238	124	880	99	140	554	168
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	131	305	122	344	535	238	124	880	99	140	554	168
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	305	122	344	535	238	124	880	99	140	554	168
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	0.95	0.95	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	1.00	2.00	1.00	2.00	0.69	0.31	1.00	1.79	0.21	1.00	1.52	0.48
Final Sat.:	1750	3800	1750	3150	1246	554	1750	3326	374	1750	2838	861
Capacity Analysis Module:												
Vol/Sat:	0.07	0.08	0.07	0.11	0.43	0.43	0.07	0.26	0.26	0.08	0.20	0.20
Crit Moves:	****				****			****			****	
Green Time:	9.5	27.8	27.8	36.4	54.6	54.6	11.7	33.7	33.7	10.2	32.2	32.2
Volume/Cap:	0.94	0.35	0.30	0.36	0.94	0.94	0.73	0.94	0.94	0.94	0.73	0.73
Uniform Del:	55.0	38.5	38.1	32.7	31.2	31.2	52.6	42.2	42.2	54.6	39.9	39.9
IncremntDel:	62.5	1.1	1.9	1.1	20.3	20.3	23.7	17.2	17.2	60.1	4.7	4.7
InitQueuDel:	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:	117.5	39.6	40.0	33.8	51.5	51.5	76.3	59.4	59.4	114.7	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:	117.5	39.6	40.0	33.8	51.5	51.5	76.3	59.4	59.4	114.7	44.6	44.6
LOS by Move:	F	D	D	C-	D-	D-	E-	E+	E+	F	D	D
HCM2kAvgQ:	211	119	102	149	836	836	160	566	566	222	340	340

Note: Queue reported is the distance per lane in feet.

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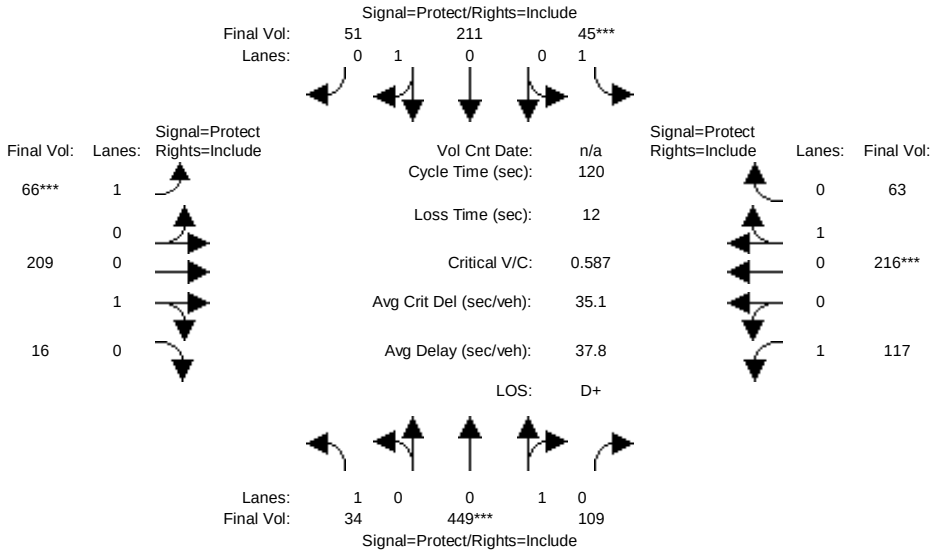
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #38: Miller Avenue/Rainbow Drive



Street Name:	Miller Avenue						Rainbow Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	34	427	109	44	197	51	66	209	16	117	216	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:	34	427	109	44	197	51	66	209	16	117	216	61
Added Vol:	0	22	0	1	14	0	0	0	0	0	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	449	109	45	211	51	66	209	16	117	216	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	449	109	45	211	51	66	209	16	117	216	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	449	109	45	211	51	66	209	16	117	216	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	449	109	45	211	51	66	209	16	117	216	63
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	0.80	0.20	1.00	0.81	0.19	1.00	0.93	0.07	1.00	0.77	0.23
Final Sat.:	1750	1448	352	1750	1450	350	1750	1672	128	1750	1394	406
Capacity Analysis Module:												
Vol/Sat:	0.02	0.31	0.31	0.03	0.15	0.15	0.04	0.13	0.13	0.07	0.16	0.16
Crit Moves:		****			****			****			****	
Green Time:	19.8	62.3	62.3	7.0	49.5	49.5	7.6	25.2	25.2	13.5	31.1	31.1
Volume/Cap:	0.12	0.60	0.60	0.44	0.35	0.35	0.60	0.59	0.59	0.59	0.60	0.60
Uniform Del:	42.6	20.1	20.1	54.6	24.3	24.3	54.7	42.8	42.8	50.7	38.9	38.9
IncremntDel:	0.8	2.8	2.8	13.2	1.3	1.3	21.6	6.7	6.7	12.6	5.5	5.5
InitQueuDel:	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:	43.5	22.9	22.9	67.8	25.6	25.6	76.3	49.5	49.5	63.2	44.5	44.5
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:	43.5	22.9	22.9	67.8	25.6	25.6	76.3	49.5	49.5	63.2	44.5	44.5
LOS by Move:	D	C+	C+	E	C	C	E-	D	D	E	D	D
HCM2kAvgQ:	30	378	378	57	172	172	89	213	213	133	250	250

Note: Queue reported is the distance per lane in feet.

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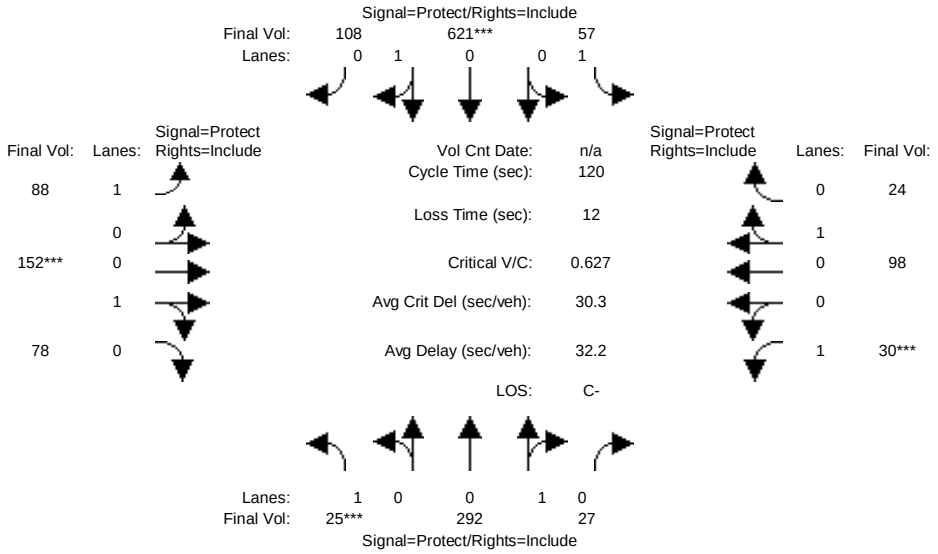
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #38: Miller Avenue/Rainbow Drive



Street Name:	Miller Avenue						Rainbow Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	25	216	27	50	539	108	88	152	78	30	98	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	216	27	50	539	108	88	152	78	30	98	18
Added Vol:	0	76	0	7	82	0	0	0	0	0	0	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	25	292	27	57	621	108	88	152	78	30	98	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:	25	292	27	57	621	108	88	152	78	30	98	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	292	27	57	621	108	88	152	78	30	98	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:	25	292	27	57	621	108	88	152	78	30	98	24
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	0.92	0.08	1.00	0.85	0.15	1.00	0.66	0.34	1.00	0.80	0.20
Final Sat.:	1750	1648	152	1750	1533	267	1750	1190	610	1750	1446	354
Capacity Analysis Module:												
Vol/Sat:	0.01	0.18	0.18	0.03	0.41	0.41	0.05	0.13	0.13	0.02	0.07	0.07
Crit Moves:	****				****			****			****	
Green Time:	7.0	59.0	59.0	19.4	71.5	71.5	12.2	22.5	22.5	7.0	17.4	17.4
Volume/Cap:	0.24	0.36	0.36	0.20	0.68	0.68	0.50	0.68	0.68	0.29	0.47	0.47
Uniform Del:	54.0	18.8	18.8	43.6	16.5	16.5	51.0	45.4	45.4	54.1	47.1	47.1
IncremntDel:	5.6	1.1	1.1	1.6	3.5	3.5	9.6	10.5	10.5	7.2	5.9	5.9
InitQueuDel:	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:	59.6	20.0	20.0	45.2	20.0	20.0	60.6	55.9	55.9	61.3	53.0	53.0
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:	59.6	20.0	20.0	45.2	20.0	20.0	60.6	55.9	55.9	61.3	53.0	53.0
LOS by Move:	E+	B-	B-	D	B-	B-	E	E+	E+	E	D-	D-
HCM2kAvgQ:	29	187	187	51	487	487	98	235	235	36	119	119

Note: Queue reported is the distance per lane in feet.

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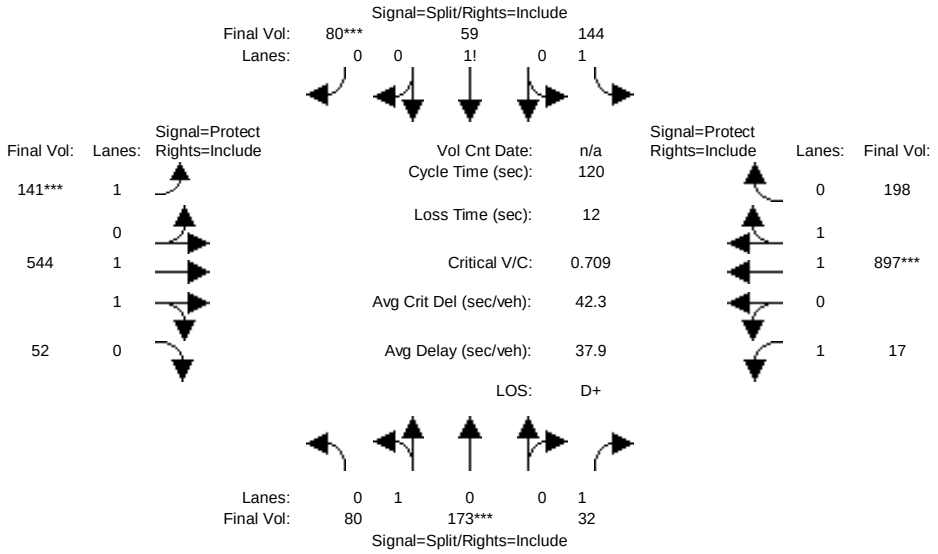
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #39: Miller Avenue/Prospect Road



Street Name:	Miller Avenue						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	80	168	32	140	56	74	130	544	52	17	897	192
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	80	168	32	140	56	74	130	544	52	17	897	192
Added Vol:	0	5	0	4	3	6	11	0	0	0	0	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	80	173	32	144	59	80	141	544	52	17	897	198
User Adj:	1.00	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:	80	173	32	144	59	80	141	544	52	17	897	198
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	173	32	144	59	80	141	544	52	17	897	198
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	80	173	32	144	59	80	141	544	52	17	897	198
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.98	0.95	0.92	0.98	0.95
Lanes:	0.32	0.68	1.00	1.34	0.28	0.38	1.00	1.82	0.18	1.00	1.63	0.37
Final Sat.:	569	1231	1750	2347	489	664	1750	3377	323	1750	3030	669
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.02	0.06	0.12	0.12	0.08	0.16	0.16	0.01	0.30	0.30
Crit Moves:		****				****	****				****	
Green Time:	23.8	23.8	23.8	20.4	20.4	20.4	13.6	46.8	46.8	17.0	50.1	50.1
Volume/Cap:	0.71	0.71	0.09	0.36	0.71	0.71	0.71	0.41	0.41	0.07	0.71	0.71
Uniform Del:	44.9	44.9	39.3	44.0	47.0	47.0	51.3	26.6	26.6	44.7	28.9	28.9
IncremntDel:	11.3	11.3	0.5	1.3	10.2	10.2	19.2	0.9	0.9	0.5	2.8	2.8
InitQueuDel:	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:	56.1	56.1	39.8	45.3	57.1	57.1	70.4	27.5	27.5	45.2	31.7	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:	56.1	56.1	39.8	45.3	57.1	57.1	70.4	27.5	27.5	45.2	31.7	31.7
LOS by Move:	E+	E+	D	D	E+	E+	E	C	C	D	C	C
HCM2kAvgQ:	260	260	26	100	232	232	172	203	203	15	444	444

Note: Queue reported is the distance per lane in feet.

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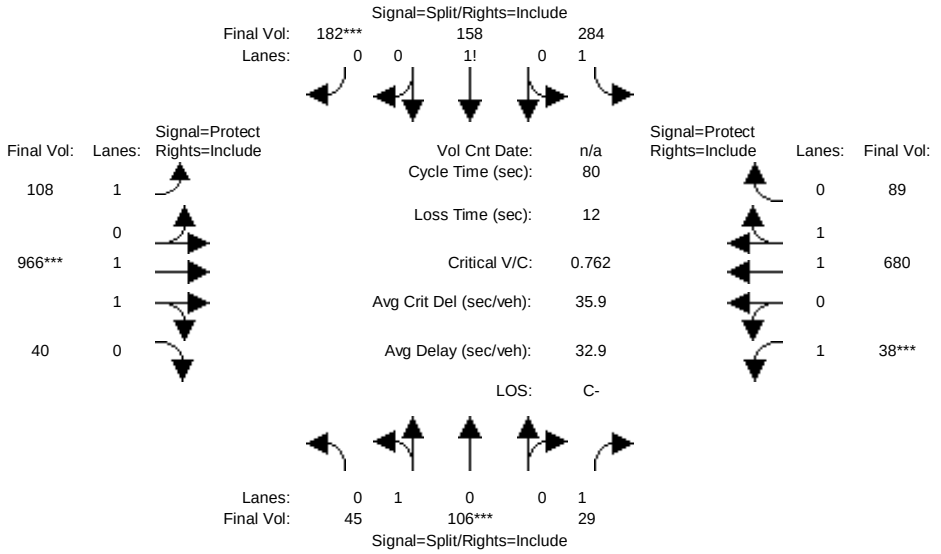
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #39: Miller Avenue/Prospect Road



Street Name:	Miller Avenue						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	45	88	29	261	138	142	72	966	40	38	680	68
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	88	29	261	138	142	72	966	40	38	680	68
Added Vol:	0	18	0	23	20	40	36	0	0	0	0	21
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	106	29	284	158	182	108	966	40	38	680	89
User Adj:	1.00	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:	45	106	29	284	158	182	108	966	40	38	680	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	106	29	284	158	182	108	966	40	38	680	89
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	45	106	29	284	158	182	108	966	40	38	680	89
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.95	0.95	0.92	0.97	0.95	0.92	0.98	0.95
Lanes:	0.30	0.70	1.00	1.30	0.33	0.37	1.00	1.92	0.08	1.00	1.76	0.24
Final Sat.:	536	1264	1750	2276	585	674	1750	3553	147	1750	3271	428
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.02	0.12	0.27	0.27	0.06	0.27	0.27	0.02	0.21	0.21
Crit Moves:		****				****		****		****		
Green Time:	10.0	10.0	10.0	25.4	25.4	25.4	9.7	25.6	25.6	7.0	22.9	22.9
Volume/Cap:	0.67	0.67	0.13	0.39	0.85	0.85	0.51	0.85	0.85	0.25	0.73	0.73
Uniform Del:	33.4	33.4	31.1	21.3	25.5	25.5	33.0	25.4	25.4	34.0	25.7	25.7
IncremntDel:	14.8	14.8	1.3	0.7	11.8	11.8	8.6	7.7	7.7	3.8	4.3	4.3
InitQueuDel:	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:	48.3	48.3	32.4	22.0	37.3	37.3	41.5	33.2	33.2	37.9	30.0	30.0
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:	48.3	48.3	32.4	22.0	37.3	37.3	41.5	33.2	33.2	37.9	30.0	30.0
LOS by Move:	D	D	C-	C+	D+	D+	D	C-	C-	D+	C	C
HCM2kAvgQ:	128	128	19	119	370	370	86	372	372	29	256	256

Note: Queue reported is the distance per lane in feet.

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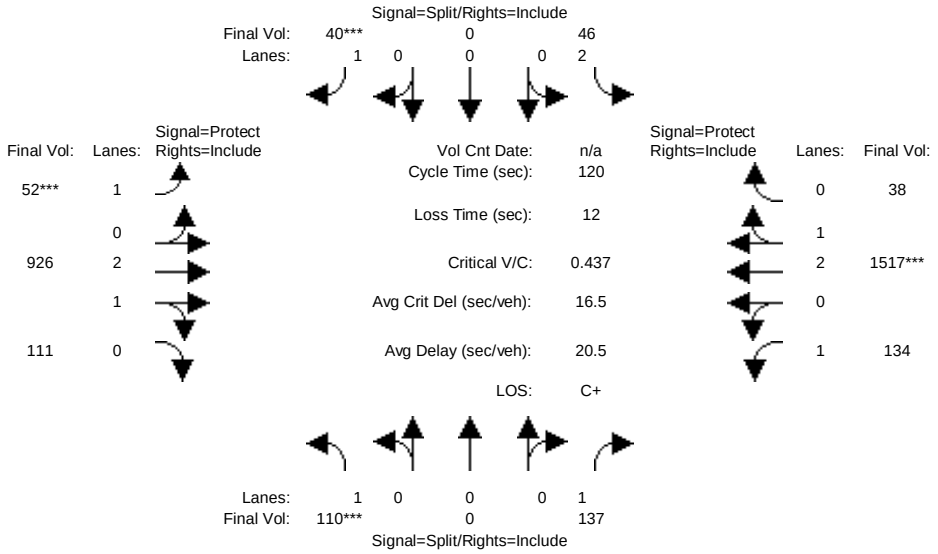
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #40: Stevens Creek Boulevard/Finch Avenue



Street Name:	Finch Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	0	10	0	0	0	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	110	0	137	46	0	40	52	879	111	134	1491	38
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	110	0	137	46	0	40	52	879	111	134	1491	38
Added Vol:	0	0	0	0	0	0	0	47	0	0	26	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	110	0	137	46	0	40	52	926	111	134	1517	38
User Adj:	1.00	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:	110	0	137	46	0	40	52	926	111	134	1517	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	110	0	137	46	0	40	52	926	111	134	1517	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	110	0	137	46	0	40	52	926	111	134	1517	38
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.99	0.95	0.92	0.98	0.95
Lanes:	1.00	0.00	1.00	2.00	0.00	1.00	1.00	2.67	0.33	1.00	2.92	0.08
Final Sat.:	1750	0	1750	3150	0	1750	1750	5000	599	1750	5463	137
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.08	0.01	0.00	0.02	0.03	0.19	0.19	0.08	0.28	0.28
Crit Moves:	****					****	****				****	
Green Time:	21.5	0.0	21.5	6.3	0.0	6.3	8.2	59.7	59.7	24.7	76.3	76.3
Volume/Cap:	0.35	0.00	0.44	0.28	0.00	0.44	0.44	0.37	0.37	0.37	0.44	0.44
Uniform Del:	43.1	0.0	43.9	54.7	0.0	55.1	53.7	18.6	18.6	41.0	11.0	11.0
IncremntDel:	3.1	0.0	4.4	4.2	0.0	14.4	11.2	0.4	0.4	2.9	0.4	0.4
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	46.2	0.0	48.2	58.9	0.0	69.6	64.9	18.9	18.9	43.9	11.4	11.4
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:	46.2	0.0	48.2	58.9	0.0	69.6	64.9	18.9	18.9	43.9	11.4	11.4
LOS by Move:	D	A	D	E+	A	E	E	B-	B-	D	B+	B+
HCM2kAvgQ:	100	0	129	32	0	53	63	195	195	119	241	241

Note: Queue reported is the distance per lane in feet.

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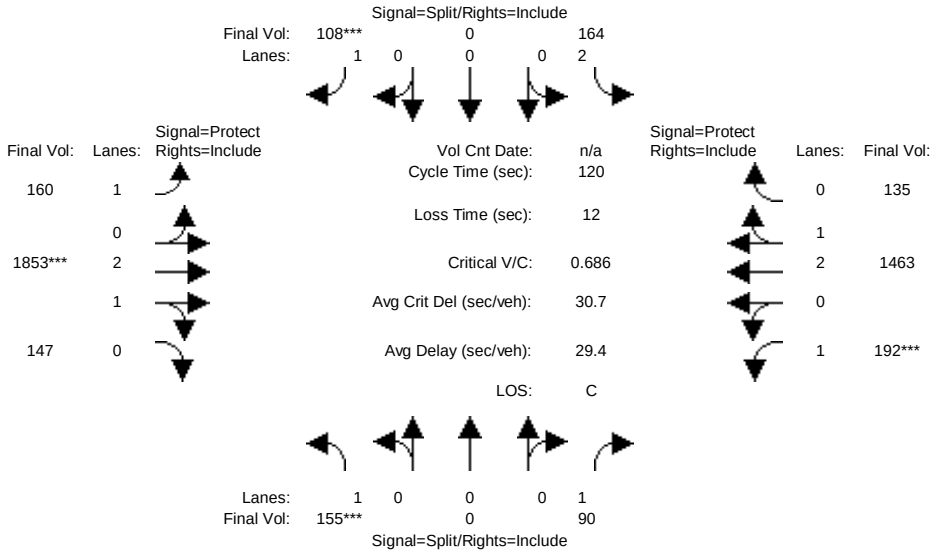
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #40: Stevens Creek Boulevard/Finch Avenue



Street Name:	Finch Avenue						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	0	10	0	0	0	7	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	155	0	90	164	0	108	160	1565	147	192	1372	135
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	155	0	90	164	0	108	160	1565	147	192	1372	135
Added Vol:	0	0	0	0	0	0	0	288	0	0	91	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	155	0	90	164	0	108	160	1853	147	192	1463	135
User Adj:	1.00	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:	155	0	90	164	0	108	160	1853	147	192	1463	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	155	0	90	164	0	108	160	1853	147	192	1463	135
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	155	0	90	164	0	108	160	1853	147	192	1463	135
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.99	0.95	0.92	0.99	0.95
Lanes:	1.00	0.00	1.00	2.00	0.00	1.00	1.00	2.77	0.23	1.00	2.74	0.26
Final Sat.:	1750	0	1750	3150	0	1750	1750	5188	412	1750	5126	473
Capacity Analysis Module:												
Vol/Sat:	0.09	0.00	0.05	0.05	0.00	0.06	0.09	0.36	0.36	0.11	0.29	0.29
Crit Moves:	****					****		****			****	
Green Time:	15.5	0.0	15.5	10.8	0.0	10.8	19.8	62.5	62.5	19.2	61.9	61.9
Volume/Cap:	0.69	0.00	0.40	0.58	0.00	0.69	0.55	0.69	0.69	0.69	0.55	0.55
Uniform Del:	49.9	0.0	48.0	52.4	0.0	53.0	46.0	21.4	21.4	47.6	19.7	19.7
IncremntDel:	15.6	0.0	5.2	8.3	0.0	21.6	7.4	1.3	1.3	12.9	0.8	0.8
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	65.6	0.0	53.1	60.8	0.0	74.6	53.5	22.8	22.8	60.4	20.5	20.5
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:	65.6	0.0	53.1	60.8	0.0	74.6	53.5	22.8	22.8	60.4	20.5	20.5
LOS by Move:	E	A	D-	E	A	E	D-	C+	C+	E	C+	C+
HCM2kAvgQ:	180	0	91	109	0	138	162	473	473	211	337	337

Note: Queue reported is the distance per lane in feet.

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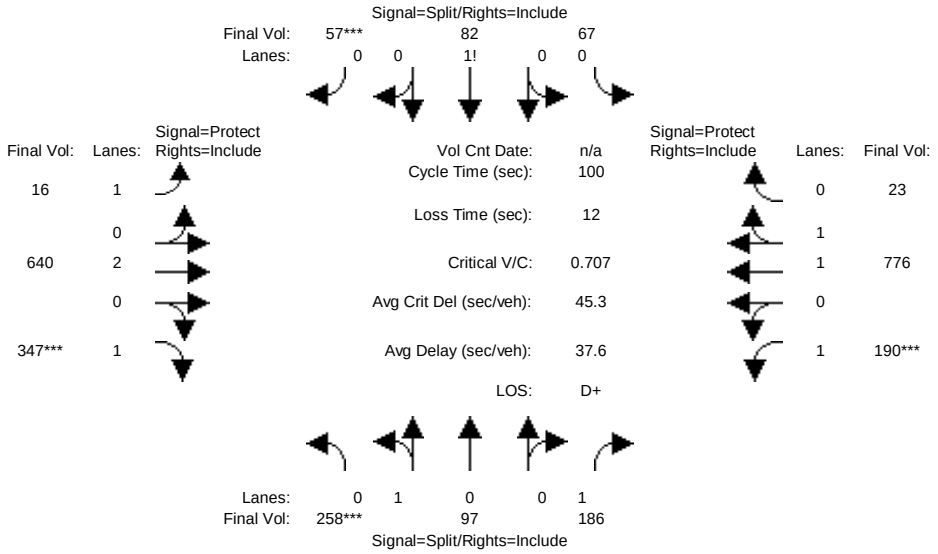
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #41: Tantau Avenue/Homestead Road



Street Name:	Tantau Avenu						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	249	97	186	67	82	57	16	618	347	190	723	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	249	97	186	67	82	57	16	618	347	190	723	23
Added Vol:	9	0	0	0	0	0	0	22	0	0	53	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	258	97	186	67	82	57	16	640	347	190	776	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:	258	97	186	67	82	57	16	640	347	190	776	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	258	97	186	67	82	57	16	640	347	190	776	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:	258	97	186	67	82	57	16	640	347	190	776	23
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	0.97	0.95
Lanes:	0.73	0.27	1.00	0.32	0.40	0.28	1.00	2.00	1.00	1.00	1.94	0.06
Final Sat.:	1308	492	1750	569	697	484	1750	3800	1750	1750	3593	107
Capacity Analysis Module:												
Vol/Sat:	0.20	0.20	0.11	0.12	0.12	0.12	0.01	0.17	0.20	0.11	0.22	0.22
Crit Moves:	****					****			****	****		
Green Time:	27.9	27.9	27.9	16.7	16.7	16.7	10.6	28.1	28.1	15.4	32.8	32.8
Volume/Cap:	0.71	0.71	0.38	0.71	0.71	0.71	0.09	0.60	0.71	0.71	0.66	0.66
Uniform Del:	32.4	32.4	29.1	39.4	39.4	39.4	40.3	31.1	32.3	40.2	28.8	28.8
IncremntDel:	8.1	8.1	2.2	13.5	13.5	13.5	0.9	2.5	8.3	14.5	2.8	2.8
InitQueuDel:	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:	40.5	40.5	31.3	52.9	52.9	52.9	41.2	33.6	40.6	54.7	31.6	31.6
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:	40.5	40.5	31.3	52.9	52.9	52.9	41.2	33.6	40.6	54.7	31.6	31.6
LOS by Move:	D	D	C	D-	D-	D-	D	C-	D	D-	C	C
HCM2kAvgQ:	288	288	128	198	198	198	13	228	289	187	289	289

Note: Queue reported is the distance per lane in feet.

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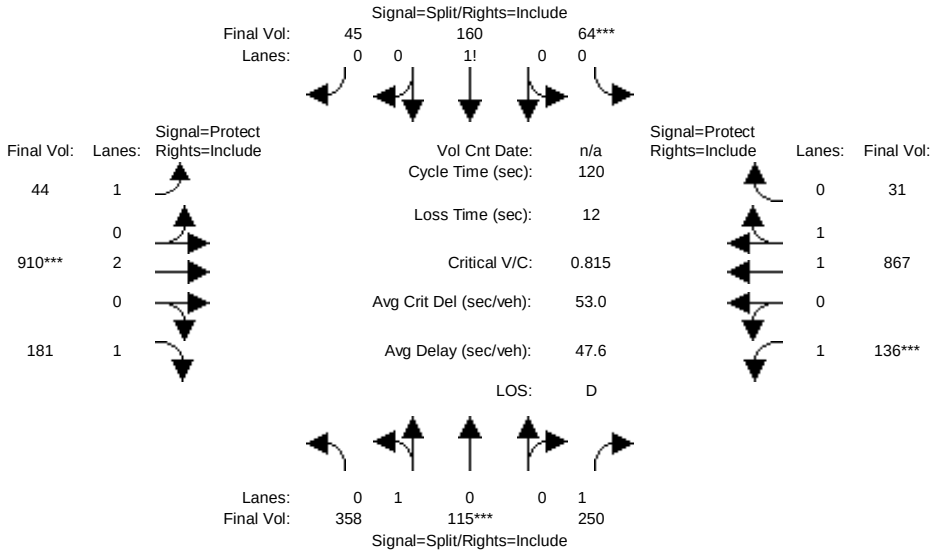
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #41: Tantau Avenue/Homestead Road



Street Name:	Tantau Avenu						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	328	115	250	64	160	45	44	778	181	136	685	31
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	328	115	250	64	160	45	44	778	181	136	685	31
Added Vol:	30	0	0	0	0	0	0	132	0	0	182	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	358	115	250	64	160	45	44	910	181	136	867	31
User Adj:	1.00	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:	358	115	250	64	160	45	44	910	181	136	867	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	358	115	250	64	160	45	44	910	181	136	867	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	358	115	250	64	160	45	44	910	181	136	867	31
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	0.97	0.95
Lanes:	0.76	0.24	1.00	0.24	0.59	0.17	1.00	2.00	1.00	1.00	1.93	0.07
Final Sat.:	1362	438	1750	416	1041	293	1750	3800	1750	1750	3572	128
Capacity Analysis Module:												
Vol/Sat:	0.26	0.26	0.14	0.15	0.15	0.15	0.03	0.24	0.10	0.08	0.24	0.24
Crit Moves:		****		****				****		****		
Green Time:	38.7	38.7	38.7	22.6	22.6	22.6	9.0	35.3	35.3	11.4	37.6	37.6
Volume/Cap:	0.82	0.82	0.44	0.82	0.82	0.82	0.33	0.82	0.35	0.82	0.77	0.77
Uniform Del:	37.4	37.4	32.1	46.7	46.7	46.7	52.6	39.3	33.4	53.2	37.3	37.3
IncremntDel:	12.0	12.0	2.5	19.5	19.5	19.5	6.7	6.6	1.9	33.8	5.1	5.1
InitQueuDel:	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:	49.3	49.3	34.7	66.2	66.2	66.2	59.3	45.9	35.3	87.1	42.4	42.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.3	49.3	34.7	66.2	66.2	66.2	59.3	45.9	35.3	87.1	42.4	42.4
LOS by Move:	D	D	C-	E	E	E	E+	D	D+	F	D	D
HCM2kAvgQ:	471	471	198	313	313	313	50	439	142	188	421	421

Note: Queue reported is the distance per lane in feet.

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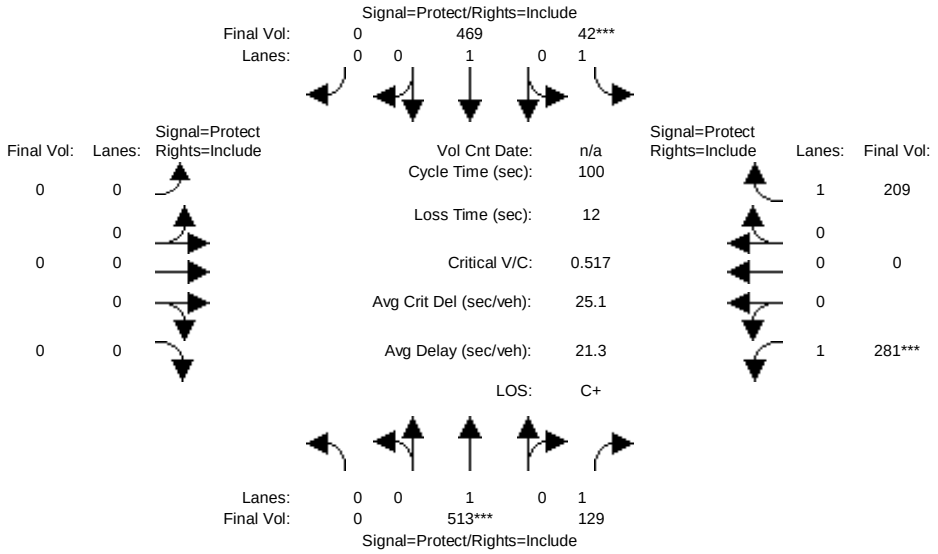
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #42: Tantau Avenue/Pruneridge Avenue



Street Name:	Tantau Avenu						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	513	124	42	469	0	0	0	0	281	0	200
Growth Adj:	1.00	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	513	124	42	469	0	0	0	0	281	0	200
Added Vol:	0	0	5	0	0	0	0	0	0	0	0	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	513	129	42	469	0	0	0	0	281	0	209
User Adj:	1.00	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	513	129	42	469	0	0	0	0	281	0	209
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	513	129	42	469	0	0	0	0	281	0	209
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	513	129	42	469	0	0	0	0	281	0	209
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
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	1750	1750	1900	0	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.07	0.02	0.25	0.00	0.00	0.00	0.00	0.16	0.00	0.12
Crit Moves:		****		****						****		
Green Time:	0.0	50.8	50.8	7.0	57.8	0.0	0.0	0.0	0.0	30.2	0.0	30.2
Volume/Cap:	0.00	0.53	0.15	0.34	0.43	0.00	0.00	0.00	0.00	0.53	0.00	0.40
Uniform Del:	0.0	16.6	13.1	44.3	11.8	0.0	0.0	0.0	0.0	29.0	0.0	27.7
IncremntDel:	0.0	2.1	0.3	7.5	1.2	0.0	0.0	0.0	0.0	3.8	0.0	2.2
InitQueuDel:	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	18.7	13.4	51.8	13.0	0.0	0.0	0.0	0.0	32.8	0.0	29.9
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	18.7	13.4	51.8	13.0	0.0	0.0	0.0	0.0	32.8	0.0	29.9
LOS by Move:	A	B-	B	D-	B	A	A	A	A	C-	A	C
HCM2kAvgQ:	0	268	56	43	201	0	0	0	0	204	0	141

Note: Queue reported is the distance per lane in feet.

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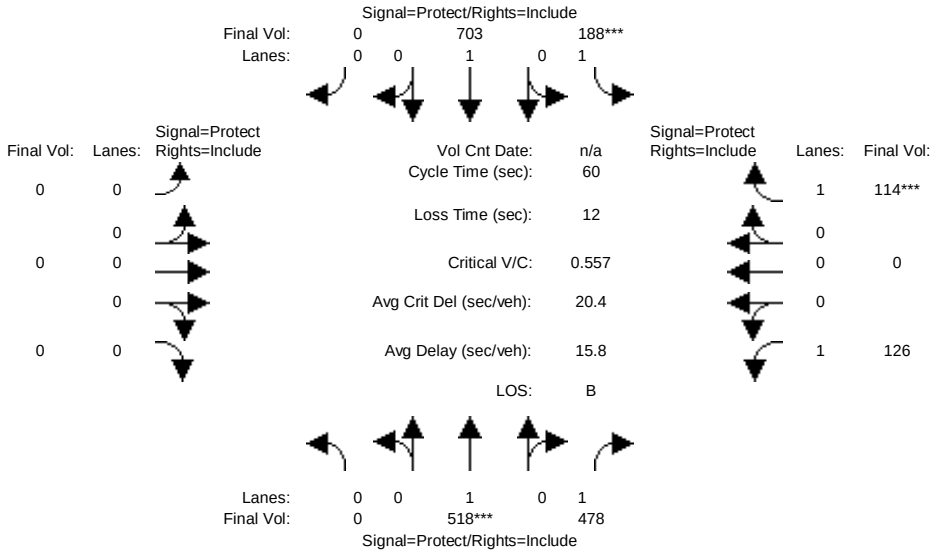
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #42: Tantau Avenue/Pruneridge Avenue



Street Name:	Tantau Avenu						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	518	445	188	703	0	0	0	0	126	0	84
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	518	445	188	703	0	0	0	0	126	0	84
Added Vol:	0	0	33	0	0	0	0	0	0	0	0	30
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	518	478	188	703	0	0	0	0	126	0	114
User Adj:	1.00	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	518	478	188	703	0	0	0	0	126	0	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	518	478	188	703	0	0	0	0	126	0	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	518	478	188	703	0	0	0	0	126	0	114
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
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	1750	1750	1900	0	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.27	0.11	0.37	0.00	0.00	0.00	0.00	0.07	0.00	0.07
Crit Moves:		****		****								****
Green Time:	0.0	27.3	27.3	10.7	38.0	0.0	0.0	0.0	0.0	10.0	0.0	10.0
Volume/Cap:	0.00	0.60	0.60	0.60	0.58	0.00	0.00	0.00	0.00	0.43	0.00	0.39
Uniform Del:	0.0	12.3	12.3	22.7	6.4	0.0	0.0	0.0	0.0	22.4	0.0	22.3
IncremntDel:	0.0	3.1	3.4	8.2	2.1	0.0	0.0	0.0	0.0	4.6	0.0	3.9
InitQueuDel:	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	15.4	15.6	30.9	8.5	0.0	0.0	0.0	0.0	27.1	0.0	26.2
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	15.4	15.6	30.9	8.5	0.0	0.0	0.0	0.0	27.1	0.0	26.2
LOS by Move:	A	B	B	C	A	A	A	A	A	C	A	C
HCM2kAvgQ:	0	198	199	113	205	0	0	0	0	70	0	62

Note: Queue reported is the distance per lane in feet.

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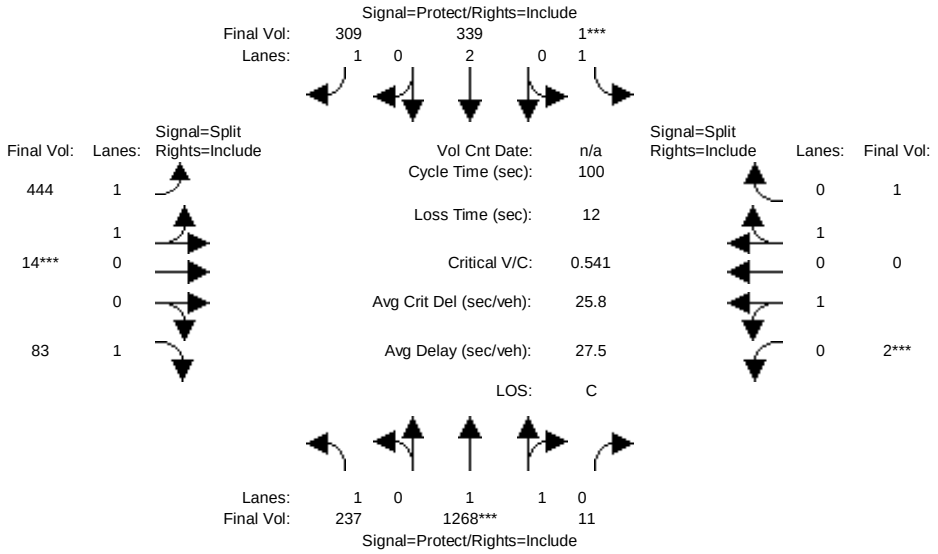
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #43: Tantau Avenue/Vallco Parkway



Street Name:	Tantau Avenu						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	237	1268	11	1	339	309	444	14	83	2	0	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	237	1268	11	1	339	309	444	14	83	2	0	1
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:	237	1268	11	1	339	309	444	14	83	2	0	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	237	1268	11	1	339	309	444	14	83	2	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	237	1268	11	1	339	309	444	14	83	2	0	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	237	1268	11	1	339	309	444	14	83	2	0	1
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	1.00	0.92	0.93	0.95	0.92	0.95	1.00	0.95
Lanes:	1.00	1.98	0.02	1.00	2.00	1.00	1.94	0.06	1.00	1.00	0.00	1.00
Final Sat.:	1750	3668	32	1750	3800	1750	3441	109	1750	1800	0	1800
Capacity Analysis Module:												
Vol/Sat:	0.14	0.35	0.35	0.00	0.09	0.18	0.13	0.13	0.05	0.00	0.00	0.00
Crit Moves:		****		****				****		****		
Green Time:	25.5	51.7	51.7	7.0	33.2	33.2	19.3	19.3	19.3	10.0	0.0	10.0
Volume/Cap:	0.53	0.67	0.67	0.01	0.27	0.53	0.67	0.67	0.25	0.01	0.00	0.01
Uniform Del:	32.1	17.8	17.8	43.3	24.5	27.1	37.4	37.4	34.2	40.5	0.0	40.5
IncremntDel:	4.5	1.9	1.9	0.1	0.5	3.5	5.1	5.1	1.7	0.1	0.0	0.0
InitQueuDel:	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	0.00	1.00
Delay/Veh:	36.6	19.7	19.7	43.4	25.0	30.5	42.5	42.5	35.9	40.6	0.0	40.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.6	19.7	19.7	43.4	25.0	30.5	42.5	42.5	35.9	40.6	0.0	40.5
LOS by Move:	D+	B-	B-	D	C	C	D	D	D+	D	A	D
HCM2kAvgQ:	181	385	385	1	95	216	203	203	61	2	0	1

Note: Queue reported is the distance per lane in feet.

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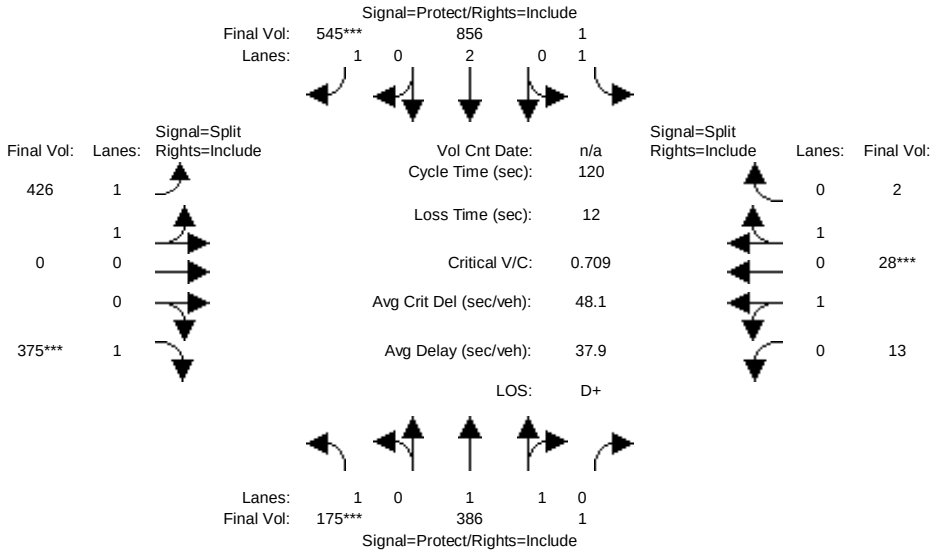
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #43: Tantau Avenue/Vallco Parkway



Street Name:	Tantau Avenu						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	175	386	1	1	856	545	426	0	375	13	28	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	175	386	1	1	856	545	426	0	375	13	28	2
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:	175	386	1	1	856	545	426	0	375	13	28	2
User Adj:	1.00	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:	175	386	1	1	856	545	426	0	375	13	28	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	175	386	1	1	856	545	426	0	375	13	28	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	175	386	1	1	856	545	426	0	375	13	28	2
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	1.00	0.92	0.93	1.00	0.92	0.95	0.95	0.95
Lanes:	1.00	1.99	0.01	1.00	2.00	1.00	2.00	0.00	1.00	0.60	1.31	0.09
Final Sat.:	1750	3690	10	1750	3800	1750	3550	0	1750	1088	2344	167
Capacity Analysis Module:												
Vol/Sat:	0.10	0.10	0.10	0.00	0.23	0.31	0.12	0.00	0.21	0.01	0.01	0.01
Crit Moves:	****					****			****		****	
Green Time:	15.7	41.4	41.4	23.1	48.8	48.8	33.6	0.0	33.6	10.0	10.0	10.0
Volume/Cap:	0.77	0.30	0.30	0.00	0.55	0.77	0.43	0.00	0.77	0.14	0.14	0.14
Uniform Del:	50.4	28.8	28.8	39.2	27.3	30.7	35.4	0.0	39.6	51.0	51.0	51.0
IncremntDel:	21.5	0.6	0.6	0.0	1.4	7.7	1.4	0.0	10.9	1.0	1.0	1.0
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00
Delay/Veh:	71.9	29.4	29.4	39.2	28.7	38.4	36.7	0.0	50.5	52.0	52.0	52.0
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:	71.9	29.4	29.4	39.2	28.7	38.4	36.7	0.0	50.5	52.0	52.0	52.0
LOS by Move:	E	C	C	D	C	D+	D+	A	D	D-	D-	D-
HCM2kAvgQ:	214	132	132	1	303	498	174	0	381	22	22	22

Note: Queue reported is the distance per lane in feet.

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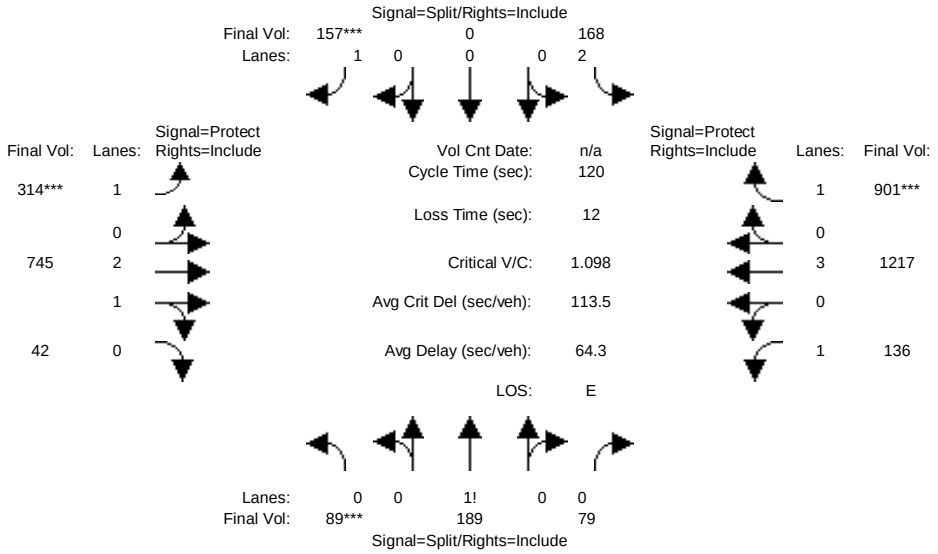
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #44: Tantau Avenue/Stevens Creek Boulevard



Street Name:	Tantau Avenu						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	89	189	79	168	0	157	314	745	42	136	1217	901
Growth Adj:	1.00	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	189	79	168	0	157	314	745	42	136	1217	901
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	189	79	168	0	157	314	745	42	136	1217	901
User Adj:	1.00	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	189	79	168	0	157	314	745	42	136	1217	901
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	189	79	168	0	157	314	745	42	136	1217	901
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	189	79	168	0	157	314	745	42	136	1217	901
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.83	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92
Lanes:	0.25	0.53	0.22	2.00	0.00	1.00	1.00	2.83	0.17	1.00	3.00	1.00
Final Sat.:	436	926	387	3150	0	1750	1750	5301	299	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.20	0.20	0.20	0.05	0.00	0.09	0.18	0.14	0.14	0.08	0.21	0.51
Crit Moves:	****					****	****					****
Green Time:	22.3	22.3	22.3	10.0	0.0	10.0	19.6	48.8	48.8	27.0	56.2	56.2
Volume/Cap:	1.10	1.10	1.10	0.64	0.00	1.08	1.10	0.35	0.35	0.35	0.46	1.10
Uniform Del:	48.9	48.9	48.9	53.3	0.0	55.0	50.2	24.6	24.6	39.1	21.6	31.9
IncremntDel:	79.5	79.5	79.5	11.4	0.0	96.5	82.7	0.4	0.4	2.4	0.6	62.4
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	128.4	128	128.4	64.6	0.0	151.5	132.9	25.0	25.0	41.5	22.1	94.3
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:	128.4	128	128.4	64.6	0.0	151.5	132.9	25.0	25.0	41.5	22.1	94.3
LOS by Move:	F	F	F	E	A	F	F	C	C	D	C+	F
HCM2kAvgQ:	561	561	561	119	0	278	503	167	167	116	249	1263

Note: Queue reported is the distance per lane in feet.

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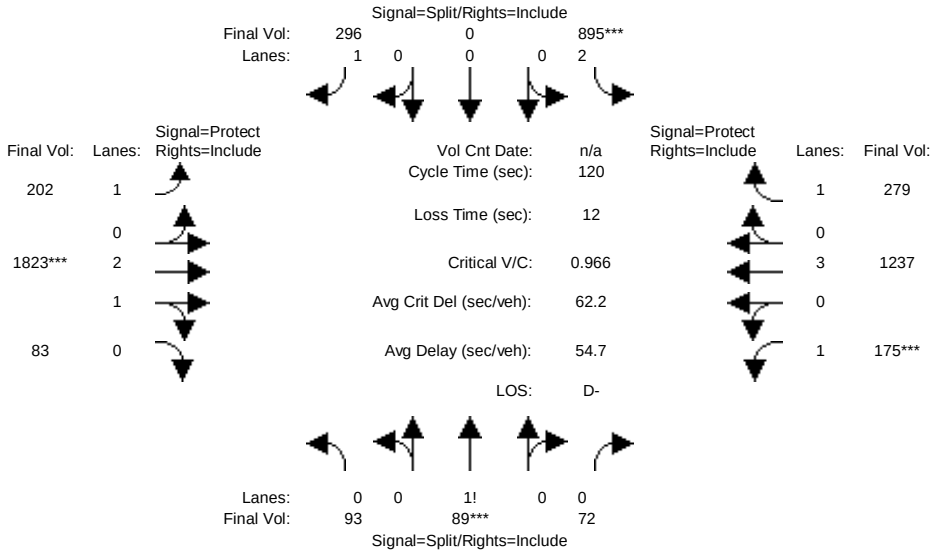
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #44: Tantau Avenue/Stevens Creek Boulevard



Street Name:	Tantau Avenu						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	93	89	72	895	0	296	202	1823	83	175	1237	279
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	93	89	72	895	0	296	202	1823	83	175	1237	279
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:	93	89	72	895	0	296	202	1823	83	175	1237	279
User Adj:	1.00	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	89	72	895	0	296	202	1823	83	175	1237	279
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	93	89	72	895	0	296	202	1823	83	175	1237	279
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	89	72	895	0	296	202	1823	83	175	1237	279
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.83	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92
Lanes:	0.37	0.35	0.28	2.00	0.00	1.00	1.00	2.86	0.14	1.00	3.00	1.00
Final Sat.:	641	613	496	3150	0	1750	1750	5356	244	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.15	0.15	0.15	0.28	0.00	0.17	0.12	0.34	0.34	0.10	0.22	0.16
Crit Moves:		****		****				****		****		
Green Time:	18.0	18.0	18.0	35.3	0.0	35.3	19.0	42.3	42.3	12.4	35.7	35.7
Volume/Cap:	0.97	0.97	0.97	0.97	0.00	0.58	0.73	0.97	0.97	0.97	0.73	0.54
Uniform Del:	50.7	50.7	50.7	41.8	0.0	36.0	48.1	38.2	38.2	53.6	37.8	35.2
IncremntDel:	47.5	47.5	47.5	22.5	0.0	4.6	15.5	13.7	13.7	58.6	2.8	3.9
InitQueuDel:	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	98.2	98.2	98.2	64.2	0.0	40.6	63.6	51.9	51.9	112.2	40.6	39.1
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:	98.2	98.2	98.2	64.2	0.0	40.6	63.6	51.9	51.9	112.2	40.6	39.1
LOS by Move:	F	F	F	E	A	D	E	D-	D-	F	D	D
HCM2kAvgQ:	361	361	361	622	0	260	229	721	721	270	368	239

Note: Queue reported is the distance per lane in feet.

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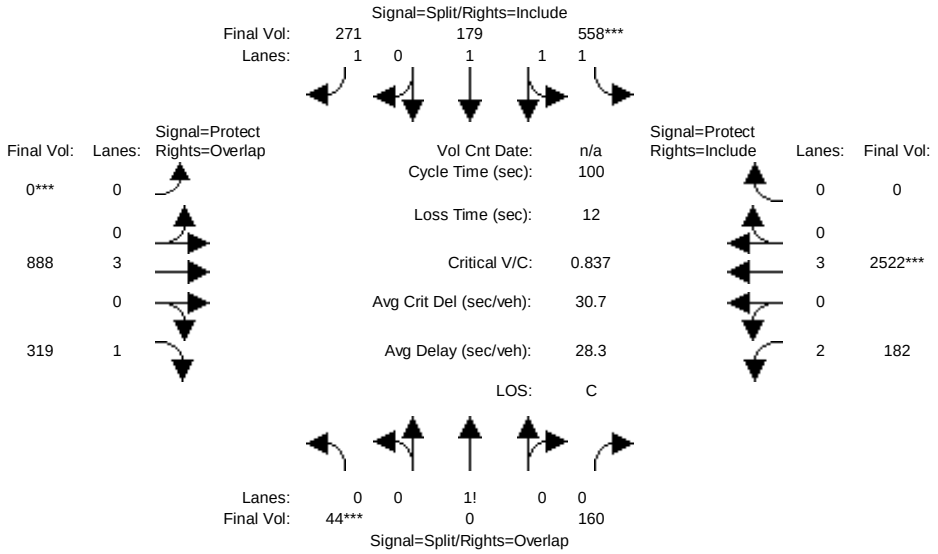
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #45: Stevens Creek Boulevard/Calvert Drive/I-280 Ramps



Street Name:	Stevens Creek Boulevard						Calvert Drive/I-280 Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	0	10	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	44	0	160	558	179	271	0	861	266	182	2443	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:	44	0	160	558	179	271	0	861	266	182	2443	0
Added Vol:	0	0	0	0	0	0	0	27	53	0	79	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	0	160	558	179	271	0	888	319	182	2522	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:	44	0	160	558	179	271	0	888	319	182	2522	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	0	160	558	179	271	0	888	319	182	2522	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:	44	0	160	558	179	271	0	888	319	182	2522	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.22	0.00	0.78	2.00	1.00	1.00	0.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:	377	0	1373	3150	1900	1750	0	5700	1750	3150	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.12	0.00	0.12	0.18	0.09	0.15	0.00	0.16	0.18	0.06	0.44	0.00
Crit Moves:	****			****			****				****	
Green Time:	13.9	0.0	30.3	21.2	21.2	21.2	0.0	36.5	50.4	16.4	52.9	0.0
Volume/Cap:	0.84	0.00	0.38	0.84	0.44	0.73	0.00	0.43	0.36	0.35	0.84	0.00
Uniform Del:	41.9	0.0	27.5	37.8	34.3	36.8	0.0	23.9	15.0	37.1	19.9	0.0
IncremntDel:	27.5	0.0	2.1	9.3	0.9	12.0	0.0	0.6	1.2	1.9	2.9	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	69.4	0.0	29.6	47.0	35.2	48.8	0.0	24.5	16.2	39.0	22.8	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:	69.4	0.0	29.6	47.0	35.2	48.8	0.0	24.5	16.2	39.0	22.8	0.0
LOS by Move:	E	A	C	D	D+	D	A	C	B	D+	C+	A
HCM2kAvgQ:	230	0	137	313	128	249	0	173	160	81	599	0

Note: Queue reported is the distance per lane in feet.

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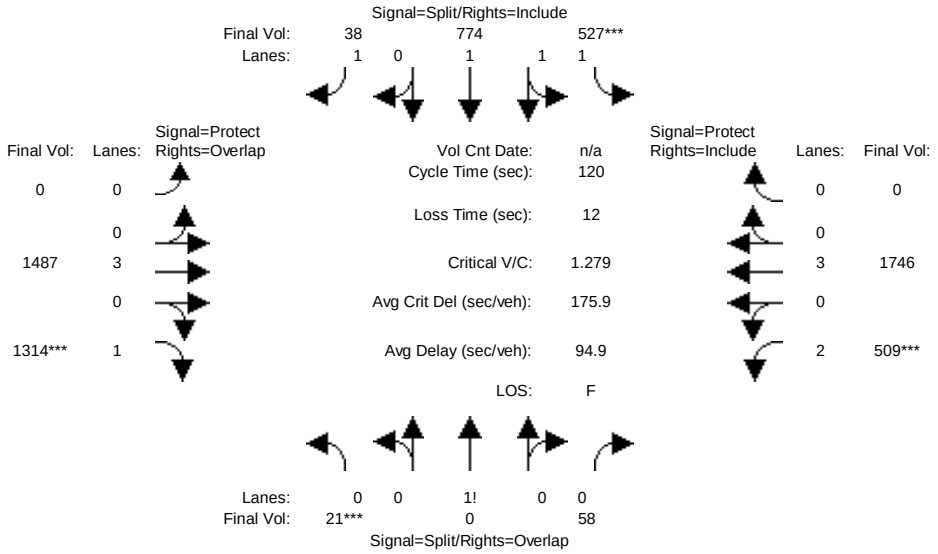
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #45: Stevens Creek Boulevard/Calvert Drive/I-280 Ramps



Street Name:	Stevens Creek Boulevard						Calvert Drive/I-280 Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	0	10	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	21	0	58	527	774	38	0	1322	993	509	1472	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:	21	0	58	527	774	38	0	1322	993	509	1472	0
Added Vol:	0	0	0	0	0	0	0	165	321	0	274	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	0	58	527	774	38	0	1487	1314	509	1746	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:	21	0	58	527	774	38	0	1487	1314	509	1746	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	0	58	527	774	38	0	1487	1314	509	1746	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:	21	0	58	527	774	38	0	1487	1314	509	1746	0
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	0.98	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.27	0.00	0.73	1.25	1.75	1.00	0.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:	465	0	1285	2206	3240	1750	0	5700	1750	3150	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.00	0.05	0.24	0.24	0.02	0.00	0.26	0.75	0.16	0.31	0.00
Crit Moves:	****			****					****	****		
Green Time:	10.0	0.0	24.8	21.9	21.9	21.9	0.0	61.3	71.3	14.8	76.1	0.0
Volume/Cap:	0.54	0.00	0.22	1.31	1.31	0.12	0.00	0.51	1.26	1.31	0.48	0.00
Uniform Del:	52.8	0.0	39.5	49.0	49.0	41.0	0.0	19.5	24.4	52.6	11.6	0.0
IncremntDel:	13.7	0.0	1.4	145.8	146	0.8	0.0	0.6	126.8	155.9	0.5	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	66.5	0.0	40.9	194.8	195	41.7	0.0	20.1	151.2	208.5	12.1	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:	66.5	0.0	40.9	194.8	195	41.7	0.0	20.1	151.2	208.5	12.1	0.0
LOS by Move:	E	A	D	F	F	D	A	C+	F	F	B	A
HCM2kAvgQ:	95	0	66	797	797	32	0	299	2229	560	279	0

Note: Queue reported is the distance per lane in feet.

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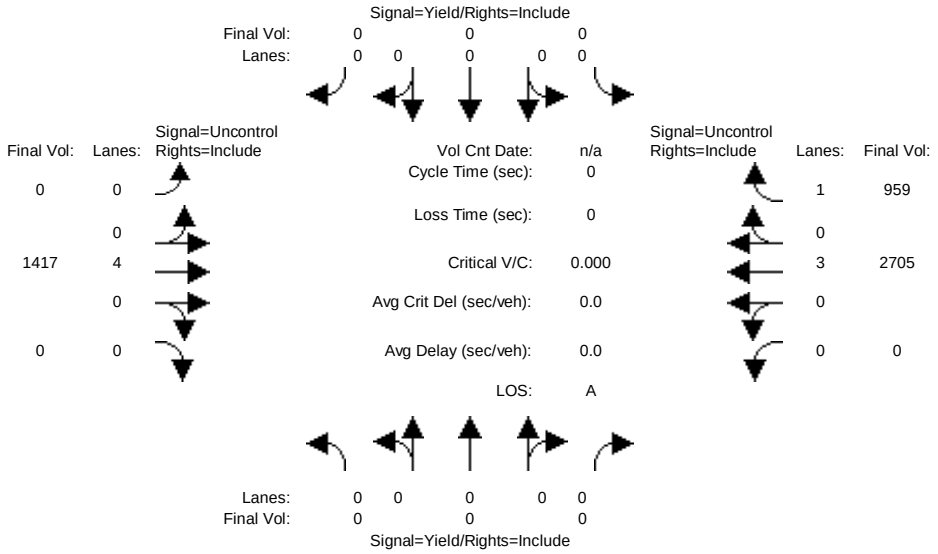
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #46: Stevens Creek Boulevard/I-280 Ramps East




```
Street Name:     Stevens Creek Boulevard              I-280 Ramps East
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0     0    0     0     0 1390     0     0 2626   959
Growth Adj:  1.00 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     0    0     0     0 1390     0     0 2626   959
Added Vol:      0    0     0     0    0     0     0   27     0     0   79     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     0     0    0     0     0 1417     0     0 2705   959
User Adj:    1.00 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     0    0     0     0 1417     0     0 2705   959
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0     0    0     0     0 1417     0     0 2705   959
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         *                *                *                *
Note: Queue reported is the distance per lane in feet.
                  Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #46 Stevens Creek Boulevard/I-280 Ramps East
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0	0 0	0	0 0 0	0 0	0	0 0 4	0 0	0	0 0 3	0 1	
Initial Vol:	0	0	0	0	0	0	0	1417	0	0	2705	959
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #46 Stevens Creek Boulevard/I-280 Ramps East

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0	0 0	0	0 0 0	0 0	0	0 0 4	0 0	0	0 0 3	0 1	
Initial Vol:	0	0	0	0	0	0	0	1417	0	0	2705	959

Major Street Volume: 5081
Minor Approach Volume: 0
Minor Approach Volume Threshold: -275 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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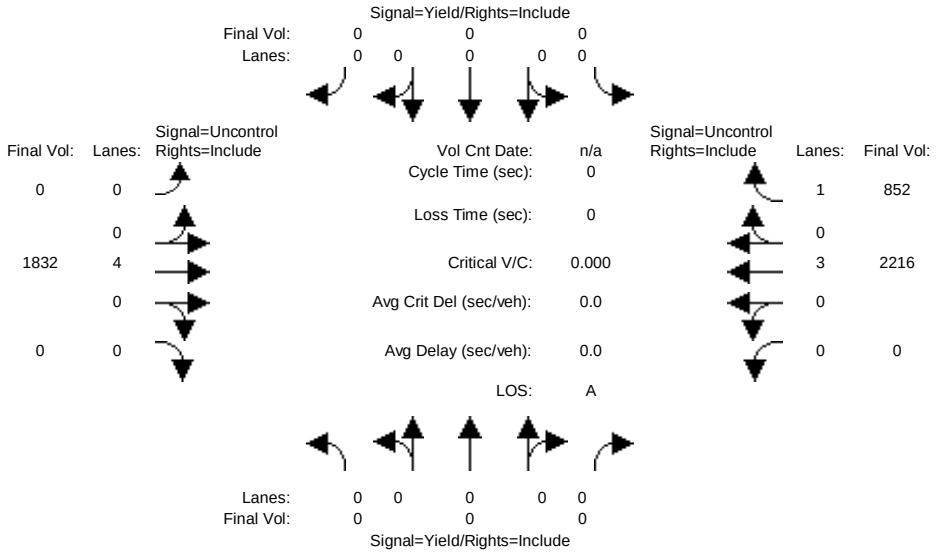
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #46: Stevens Creek Boulevard/I-280 Ramps East




```
Street Name:     Stevens Creek Boulevard              I-280 Ramps East
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0     0    0     0     0 1667     0     0 1942   852
Growth Adj:  1.00 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     0    0     0     0 1667     0     0 1942   852
Added Vol:      0    0     0     0    0     0     0  165     0     0  274     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     0     0    0     0     0 1832     0     0 2216   852
User Adj:    1.00 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     0    0     0     0 1832     0     0 2216   852
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0     0    0     0     0 1832     0     0 2216   852
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         *                *                *                *
Note: Queue reported is the distance per lane in feet.
                  Peak Hour Delay Signal Warrant Report
********************************************************************************
Intersection #46 Stevens Creek Boulevard/I-280 Ramps East
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0	0 0	0	0 0 0	0 0	0	0 0 4	0 0	0	0 0 3	0 1	
Initial Vol:	0	0	0	0	0	0	0 1832		0	0 2216		852
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #46 Stevens Creek Boulevard/I-280 Ramps East

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Yield Sign			Yield Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0	0 0	0	0 0 0	0 0	0	0 0 4	0 0	0	0 0 3	0 1	
Initial Vol:	0	0	0	0	0	0	0 1832		0	0 2216		852

Major Street Volume: 4900
Minor Approach Volume: 0
Minor Approach Volume Threshold: -263 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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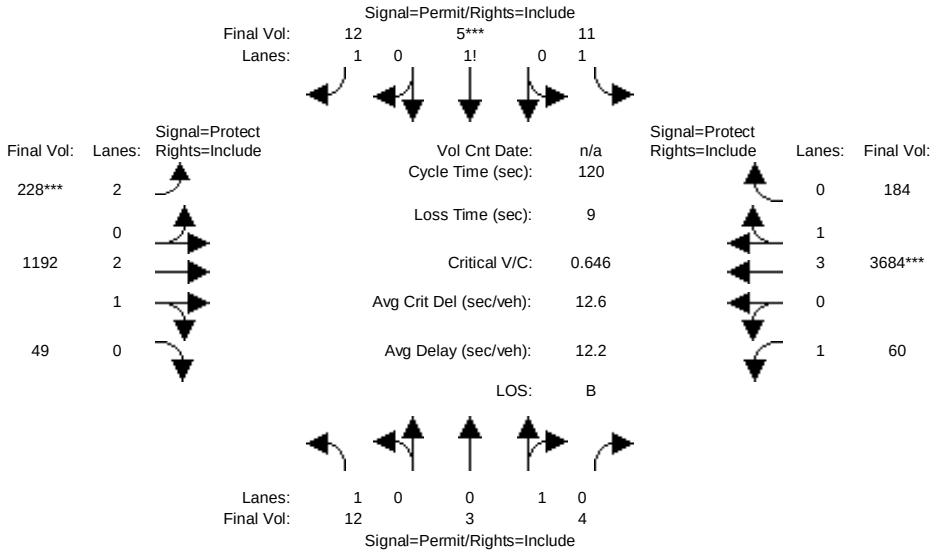
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #47: Stevens Creek Boulevard/Agilent Driveway



Street Name:	Stevens Creek Boulevard						Agilent Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	12	3	4	11	5	12	228	1165	49	60	3605	184
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	3	4	11	5	12	228	1165	49	60	3605	184
Added Vol:	0	0	0	0	0	0	0	27	0	0	79	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	3	4	11	5	12	228	1192	49	60	3684	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:	12	3	4	11	5	12	228	1192	49	60	3684	184
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	3	4	11	5	12	228	1192	49	60	3684	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:	12	3	4	11	5	12	228	1192	49	60	3684	184
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.92	0.92	0.83	0.98	0.95	0.92	0.99	0.95
Lanes:	1.00	0.43	0.57	1.33	0.30	1.37	2.00	2.88	0.12	1.00	3.80	0.20
Final Sat.:	1750	771	1029	2333	530	2386	3150	5379	221	1750	7143	357
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.00	0.00	0.01	0.01	0.07	0.22	0.22	0.03	0.52	0.52
Crit Moves:					****		****				****	
Green Time:	10.0	10.0	10.0	10.0	10.0	10.0	12.4	80.0	80.0	21.0	88.6	88.6
Volume/Cap:	0.08	0.05	0.05	0.06	0.11	0.06	0.70	0.33	0.33	0.20	0.70	0.70
Uniform Del:	50.8	50.6	50.6	50.7	50.9	50.7	52.0	8.6	8.6	42.2	8.5	8.5
IncremntDel:	1.1	0.6	0.6	0.2	0.9	0.2	11.8	0.2	0.2	1.4	0.8	0.8
InitQueuDel:	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:	51.9	51.2	51.2	50.9	51.8	50.9	63.8	8.8	8.8	43.7	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:	51.9	51.2	51.2	50.9	51.8	50.9	63.8	8.8	8.8	43.7	9.3	9.3
LOS by Move:	D-	D-	D-	D	D-	D	E	A	A	D	A	A
HCM2kAvgQ:	12	7	7	8	17	9	157	163	163	52	497	497

Note: Queue reported is the distance per lane in feet.

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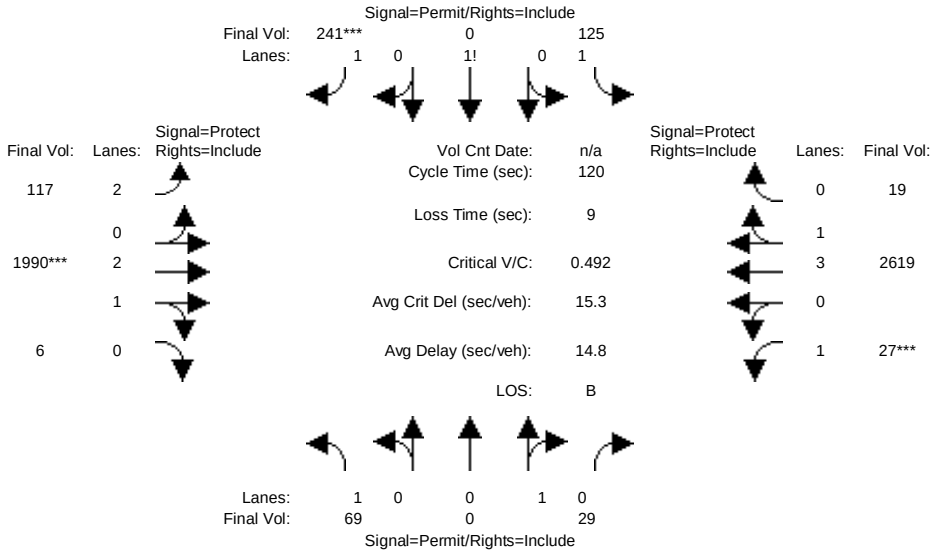
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #47: Stevens Creek Boulevard/Agilent Driveway



Street Name:	Stevens Creek Boulevard						Agilent Driveway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	69	0	29	125	0	241	117	1825	6	27	2345	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	69	0	29	125	0	241	117	1825	6	27	2345	19
Added Vol:	0	0	0	0	0	0	0	165	0	0	274	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	69	0	29	125	0	241	117	1990	6	27	2619	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:	69	0	29	125	0	241	117	1990	6	27	2619	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	69	0	29	125	0	241	117	1990	6	27	2619	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:	69	0	29	125	0	241	117	1990	6	27	2619	19
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.95	0.92	1.00	0.92	0.83	0.98	0.95	0.92	0.99	0.95
Lanes:	1.00	0.00	1.00	1.34	0.00	1.66	2.00	2.99	0.01	1.00	3.97	0.03
Final Sat.:	1750	0	1800	2348	0	2902	3150	5583	17	1750	7446	54
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.02	0.05	0.00	0.08	0.04	0.36	0.36	0.02	0.35	0.35
Crit Moves:						****		****		****		
Green Time:	19.7	0.0	19.7	19.7	0.0	19.7	13.0	84.3	84.3	7.0	78.4	78.4
Volume/Cap:	0.24	0.00	0.10	0.33	0.00	0.51	0.34	0.51	0.51	0.26	0.54	0.54
Uniform Del:	43.7	0.0	42.6	44.3	0.0	45.8	49.5	8.2	8.2	54.0	11.1	11.1
IncremntDel:	2.0	0.0	0.7	0.8	0.0	2.5	2.7	0.5	0.5	6.2	0.4	0.4
InitQueuDel:	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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	45.7	0.0	43.3	45.1	0.0	48.3	52.3	8.7	8.7	60.3	11.6	11.6
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:	45.7	0.0	43.3	45.1	0.0	48.3	52.3	8.7	8.7	60.3	11.6	11.6
LOS by Move:	D	A	D	D	A	D	D-	A	A	E	B+	B+
HCM2kAvgQ:	62	0	24	86	0	144	67	286	286	32	327	327

Note: Queue reported is the distance per lane in feet.

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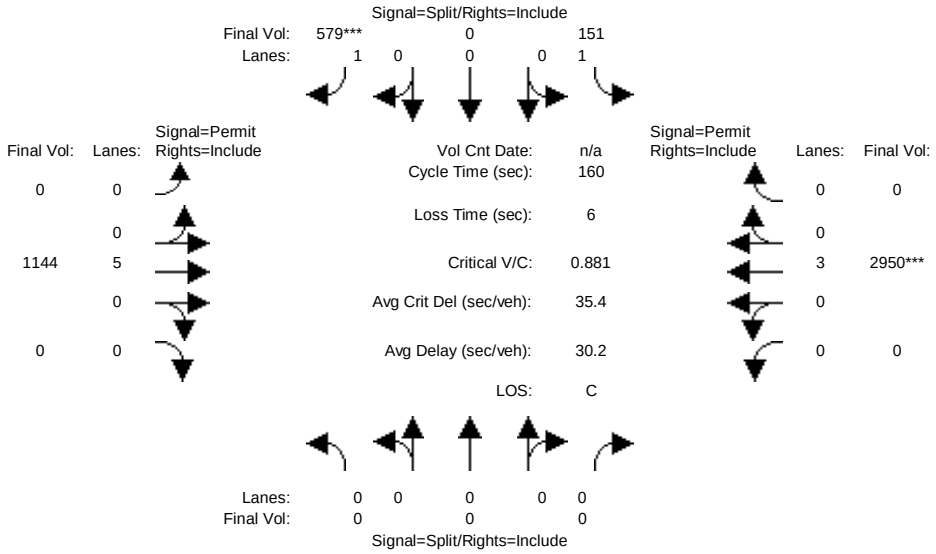
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #48: Stevens Creek Boulevard/Lawrence Expressway Ramps West



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps West					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	20	0	20	0	100	0	0	100	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	151	0	579	0	1117	0	0	2871	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	151	0	579	0	1117	0	0	2871	0
Added Vol:	0	0	0	0	0	0	0	27	0	0	79	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	151	0	579	0	1144	0	0	2950	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	0	0	151	0	579	0	1144	0	0	2950	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	151	0	579	0	1144	0	0	2950	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	151	0	579	0	1144	0	0	2950	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	5.00	0.00	0.00	3.00	0.00
Final Sat.:	0	0	0	1750	0	1750	0	9500	0	0	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.09	0.00	0.33	0.00	0.12	0.00	0.00	0.52	0.00
Crit Moves:						****					****	
Green Time:	0.0	0.0	0.0	54.0	0.0	54.0	0.0	100	0.0	0.0	100	0.0
Volume/Cap:	0.00	0.00	0.00	0.26	0.00	0.98	0.00	0.19	0.00	0.00	0.83	0.00
Uniform Del:	0.0	0.0	0.0	38.4	0.0	52.5	0.0	12.8	0.0	0.0	23.3	0.0
IncremntDel:	0.0	0.0	0.0	1.0	0.0	32.5	0.0	0.1	0.0	0.0	2.4	0.0
InitQueuDel:	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	39.5	0.0	85.0	0.0	12.9	0.0	0.0	25.7	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	39.5	0.0	85.0	0.0	12.9	0.0	0.0	25.7	0.0
LOS by Move:	A	A	A	D	A	F	A	B	A	A	C	A
HCM2kAvgQ:	0	0	0	141	0	894	0	114	0	0	978	0

Note: Queue reported is the distance per lane in feet.

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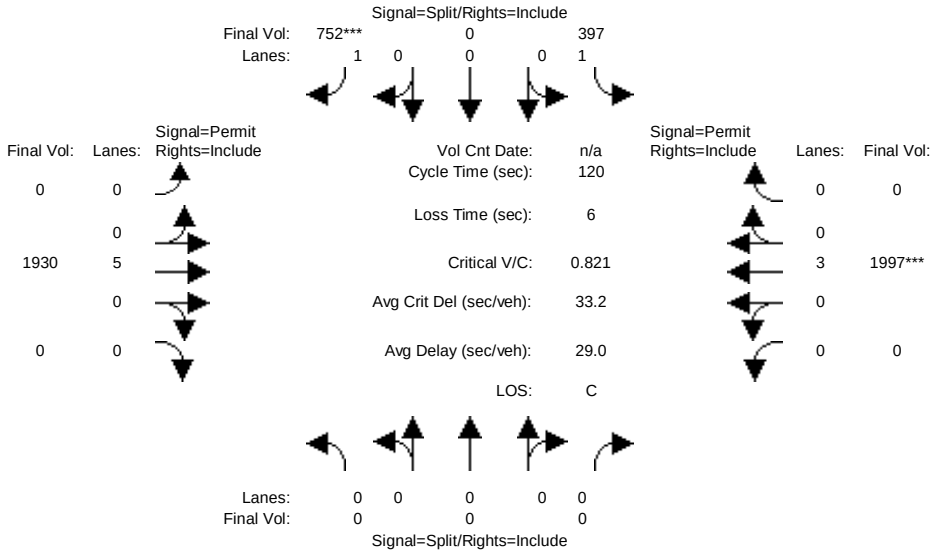
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #48: Stevens Creek Boulevard/Lawrence Expressway Ramps West



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps West					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	10	0	10	0	10	0	0	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	397	0	752	0	1765	0	0	1723	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	397	0	752	0	1765	0	0	1723	0
Added Vol:	0	0	0	0	0	0	0	165	0	0	274	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	397	0	752	0	1930	0	0	1997	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	0	0	397	0	752	0	1930	0	0	1997	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	397	0	752	0	1930	0	0	1997	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	397	0	752	0	1930	0	0	1997	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	5.00	0.00	0.00	3.00	0.00
Final Sat.:	0	0	0	1750	0	1750	0	9500	0	0	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.23	0.00	0.43	0.00	0.20	0.00	0.00	0.35	0.00
Crit Moves:						****					****	
Green Time:	0.0	0.0	0.0	62.8	0.0	62.8	0.0	51.2	0.0	0.0	51.2	0.0
Volume/Cap:	0.00	0.00	0.00	0.43	0.00	0.82	0.00	0.48	0.00	0.00	0.82	0.00
Uniform Del:	0.0	0.0	0.0	17.6	0.0	23.9	0.0	24.8	0.0	0.0	30.4	0.0
IncremntDel:	0.0	0.0	0.0	1.5	0.0	8.2	0.0	0.4	0.0	0.0	3.3	0.0
InitQueuDel:	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	19.1	0.0	32.1	0.0	25.2	0.0	0.0	33.6	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	19.1	0.0	32.1	0.0	25.2	0.0	0.0	33.6	0.0
LOS by Move:	A	A	A	B-	A	C-	A	C	A	A	C-	A
HCM2kAvgQ:	0	0	0	240	0	666	0	254	0	0	576	0

Note: Queue reported is the distance per lane in feet.

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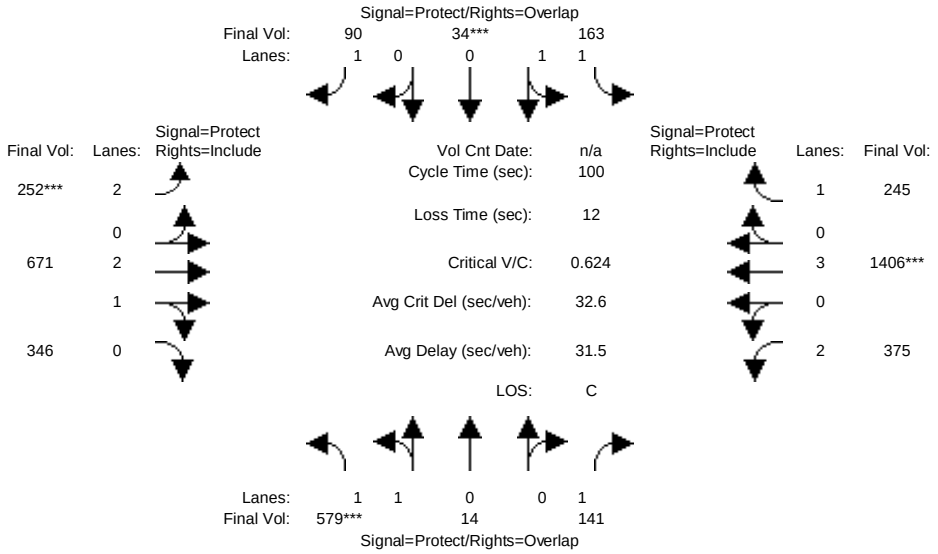
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #49: Lawrence Expressway Ramps/El Camino Real



Street Name:	Lawrence Expressway Ramp						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	579	14	141	163	34	90	252	671	346	375	1406	245
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	579	14	141	163	34	90	252	671	346	375	1406	245
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:	579	14	141	163	34	90	252	671	346	375	1406	245
User Adj:	1.00	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:	579	14	141	163	34	90	252	671	346	375	1406	245
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	579	14	141	163	34	90	252	671	346	375	1406	245
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	579	14	141	163	34	90	252	671	346	375	1406	245
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.93	0.95	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	1.95	0.05	1.00	1.66	0.34	1.00	2.00	2.00	1.00	2.00	3.00	1.00
Final Sat.:	3466	84	1750	2937	613	1750	3150	3800	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.17	0.17	0.08	0.06	0.06	0.05	0.08	0.18	0.20	0.12	0.25	0.14
Crit Moves:	****				****		****				****	
Green Time:	26.4	25.6	45.0	10.7	10.0	22.6	12.6	32.2	32.2	19.4	39.0	39.0
Volume/Cap:	0.63	0.65	0.18	0.52	0.55	0.23	0.63	0.55	0.61	0.61	0.63	0.36
Uniform Del:	32.5	33.2	16.4	42.2	42.9	31.5	41.5	27.9	28.6	36.9	24.7	21.7
IncremntDel:	3.2	3.6	0.5	4.9	6.1	1.3	7.5	1.2	1.7	4.6	1.4	1.5
InitQueuDel:	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:	35.8	36.8	16.9	47.1	49.0	32.9	48.9	29.1	30.3	41.4	26.1	23.1
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:	35.8	36.8	16.9	47.1	49.0	32.9	48.9	29.1	30.3	41.4	26.1	23.1
LOS by Move:	D+	D+	B	D	D	C-	D	C	C	D	C	C
HCM2kAvgQ:	235	240	69	94	98	63	138	221	258	180	305	145

Note: Queue reported is the distance per lane in feet.

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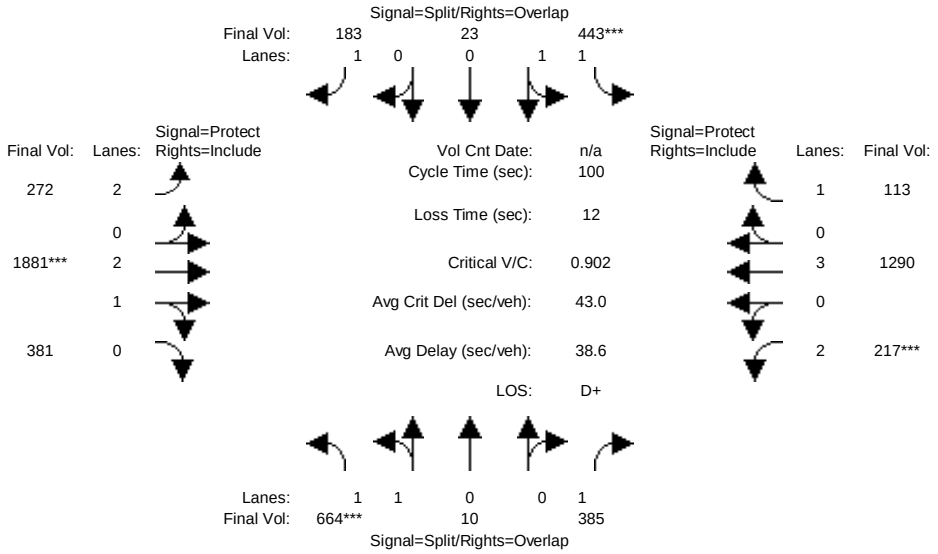
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #49: Lawrence Expressway Ramps/El Camino Real



Street Name:	Lawrence Expressway Ramp						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	664	10	385	443	23	183	272	1881	381	217	1290	113
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	664	10	385	443	23	183	272	1881	381	217	1290	113
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:	664	10	385	443	23	183	272	1881	381	217	1290	113
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	664	10	385	443	23	183	272	1881	381	217	1290	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	664	10	385	443	23	183	272	1881	381	217	1290	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	664	10	385	443	23	183	272	1881	381	217	1290	113
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.93	0.95	0.92	0.83	0.99	0.95	0.83	1.00	0.92
Lanes:	1.97	0.03	1.00	1.90	0.10	1.00	2.00	2.48	0.52	2.00	3.00	1.00
Final Sat.:	3497	53	1750	3375	175	1750	3150	4656	943	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.19	0.19	0.22	0.13	0.13	0.10	0.09	0.40	0.40	0.07	0.23	0.06
Crit Moves:	****			****				****		****		
Green Time:	21.0	21.0	28.7	14.5	14.5	29.0	14.5	44.8	44.8	7.6	37.9	37.9
Volume/Cap:	0.90	0.90	0.77	0.90	0.90	0.36	0.60	0.90	0.90	0.90	0.60	0.17
Uniform Del:	38.5	38.5	32.6	42.0	42.0	28.1	40.0	25.6	25.6	45.8	24.9	20.6
IncremntDel:	16.3	16.3	10.7	21.6	21.6	2.0	5.7	5.9	5.9	37.4	1.2	0.6
InitQueuDel:	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:	54.7	54.7	43.3	63.6	63.6	30.1	45.7	31.4	31.4	83.2	26.1	21.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.7	54.7	43.3	63.6	63.6	30.1	45.7	31.4	31.4	83.2	26.1	21.1
LOS by Move:	D-	D-	D	E	E	C	D	C	C	F	C	C+
HCM2kAvgQ:	362	362	335	274	274	123	140	641	641	172	275	62

Note: Queue reported is the distance per lane in feet.

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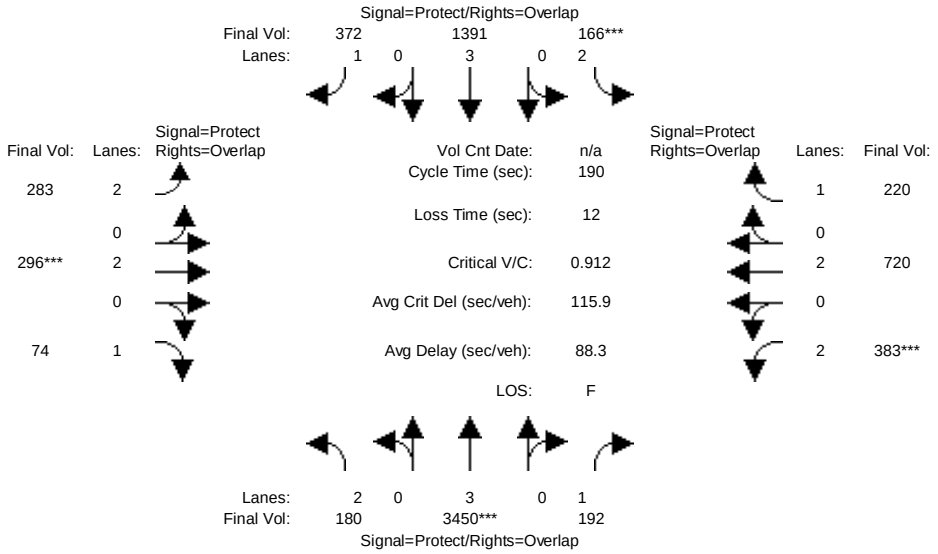
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #50: Lawrence Expressway/Homestead Road



Street Name:	Lawrence Expressway						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	22	107	107	17	102	102	23	43	43	23	43	43
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	162	3966	192	166	1599	359	275	282	74	383	698	220
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	162	3966	192	166	1599	359	275	282	74	383	698	220
Added Vol:	18	0	0	0	0	13	8	14	0	0	22	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	180	3966	192	166	1599	372	283	296	74	383	720	220
User Adj:	1.00	0.87	1.00	1.00	0.87	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:	180	3450	192	166	1391	372	283	296	74	383	720	220
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	180	3450	192	166	1391	372	283	296	74	383	720	220
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	180	3450	192	166	1391	372	283	296	74	383	720	220
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.61	0.11	0.05	0.24	0.21	0.09	0.08	0.04	0.12	0.19	0.13
Crit Moves:		****		****				****		****		
Green Time:	20.7	101	122.3	16.0	95.9	117.6	21.6	40.4	61.1	21.6	40.4	56.4
Volume/Cap:	0.52	1.14	0.17	0.63	0.48	0.34	0.79	0.37	0.13	1.07	0.89	0.42
Uniform Del:	85.1	47.5	14.4	89.4	32.7	18.6	87.1	67.9	48.5	89.5	77.2	57.1
IncremntDel:	5.6	68.7	0.3	10.7	0.6	0.9	16.1	1.3	0.5	66.7	14.0	2.5
InitQueuDel:	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:	90.7	116	14.7	100.1	33.3	19.5	103.2	69.1	49.0	156.2	91.2	59.6
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:	90.7	116	14.7	100.1	33.3	19.5	103.2	69.1	49.0	156.2	91.2	59.6
LOS by Move:	F	F	B	F	C-	B-	F	E	D	F	F	E+
HCM2kAvgQ:	169	2212	122	171	449	287	298	191	84	483	602	287

Note: Queue reported is the distance per lane in feet.

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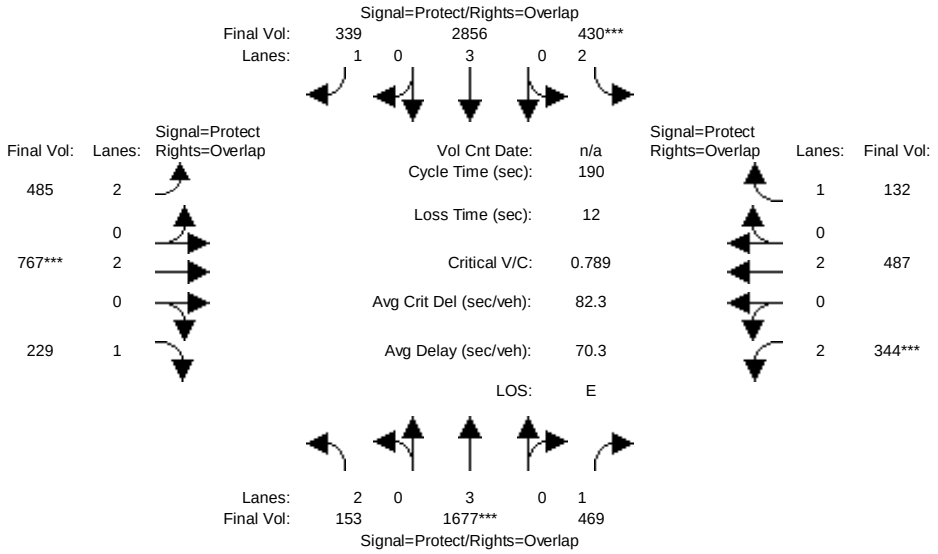
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #50: Lawrence Expressway/Homestead Road



Street Name:	Lawrence Expressway						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	17	95	95	27	105	105	27	38	38	30	41	41
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	92	2123	469	430	3615	293	436	685	229	344	411	132
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	92	2123	469	430	3615	293	436	685	229	344	411	132
Added Vol:	61	0	0	0	0	46	49	82	0	0	76	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	153	2123	469	430	3615	339	485	767	229	344	487	132
User Adj:	1.00	0.79	1.00	1.00	0.79	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:	153	1677	469	430	2856	339	485	767	229	344	487	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	153	1677	469	430	2856	339	485	767	229	344	487	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	153	1677	469	430	2856	339	485	767	229	344	487	132
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.29	0.27	0.14	0.50	0.19	0.15	0.20	0.13	0.11	0.13	0.08
Crit Moves:		****		****				****		****		
Green Time:	16.0	89.4	117.6	25.4	98.8	126.4	27.6	35.7	51.7	28.2	36.4	61.8
Volume/Cap:	0.58	0.63	0.43	1.02	0.96	0.29	1.06	1.07	0.48	0.74	0.67	0.23
Uniform Del:	89.0	40.2	20.0	87.5	46.7	14.1	86.3	82.0	61.5	82.2	75.7	49.8
IncremntDel:	8.9	1.1	1.3	49.4	10.0	0.6	59.0	55.0	3.4	9.9	4.9	1.0
InitQueuDel:	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:	97.9	41.3	21.3	136.9	56.7	14.7	145.3	137	65.0	92.1	80.6	50.7
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:	97.9	41.3	21.3	136.9	56.7	14.7	145.3	137	65.0	92.1	80.6	50.7
LOS by Move:	F	D	C+	F	E+	B	F	F	E	F	F	D
HCM2kAvgQ:	155	629	391	515	1508	225	590	757	315	334	362	154

Note: Queue reported is the distance per lane in feet.

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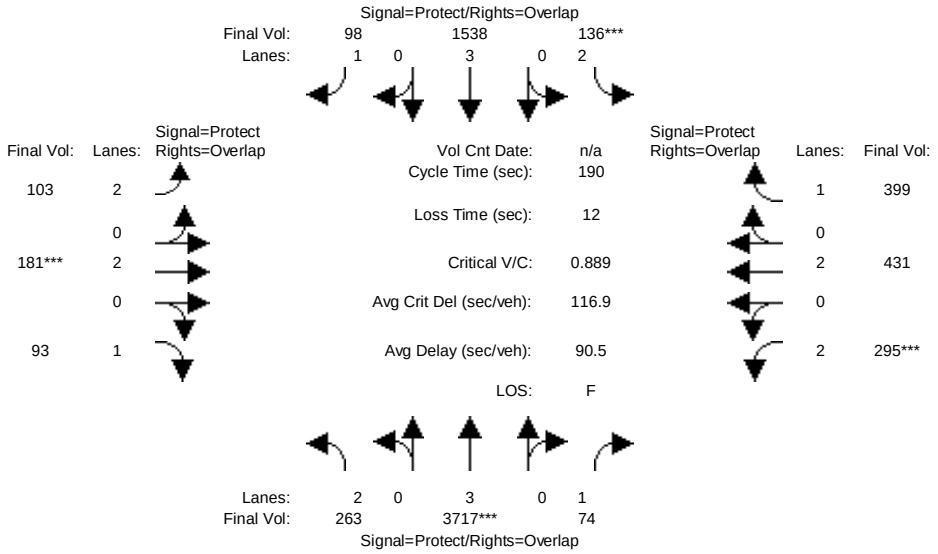
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #51: Lawrence Expressway/Pruneridge Avenue



Street Name:	Lawrence Expressway						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	19	113	113	16	111	111	19	37	37	24	42	42
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	263	4254	74	136	1768	98	103	176	93	295	422	399
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	263	4254	74	136	1768	98	103	176	93	295	422	399
Added Vol:	0	18	0	0	0	0	0	5	0	0	9	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	263	4272	74	136	1768	98	103	181	93	295	431	399
User Adj:	1.00	0.87	1.00	1.00	0.87	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:	263	3717	74	136	1538	98	103	181	93	295	431	399
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	263	3717	74	136	1538	98	103	181	93	295	431	399
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	263	3717	74	136	1538	98	103	181	93	295	431	399
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.65	0.04	0.04	0.27	0.06	0.03	0.05	0.05	0.09	0.11	0.23
Crit Moves:		****		****				****		****		
Green Time:	17.8	107	129.2	15.0	104	121.7	17.8	34.6	52.4	22.5	39.3	54.3
Volume/Cap:	0.89	1.16	0.06	0.55	0.49	0.09	0.35	0.26	0.19	0.79	0.55	0.80
Uniform Del:	91.0	44.5	10.9	90.0	28.6	13.9	86.2	71.3	56.2	87.1	72.0	67.1
IncremntDel:	30.9	76.3	0.1	8.4	0.6	0.2	3.2	0.9	0.9	15.8	2.7	12.5
InitQueuDel:	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:	121.8	121	11.0	98.4	29.1	14.1	89.5	72.2	57.1	102.8	74.8	79.6
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:	121.8	121	11.0	98.4	29.1	14.1	89.5	72.2	57.1	102.8	74.8	79.6
LOS by Move:	F	F	B+	F	C	B	F	E	E+	F	E	E-
HCM2kAvgQ:	306	2426	40	138	473	60	95	118	115	310	301	645

Note: Queue reported is the distance per lane in feet.

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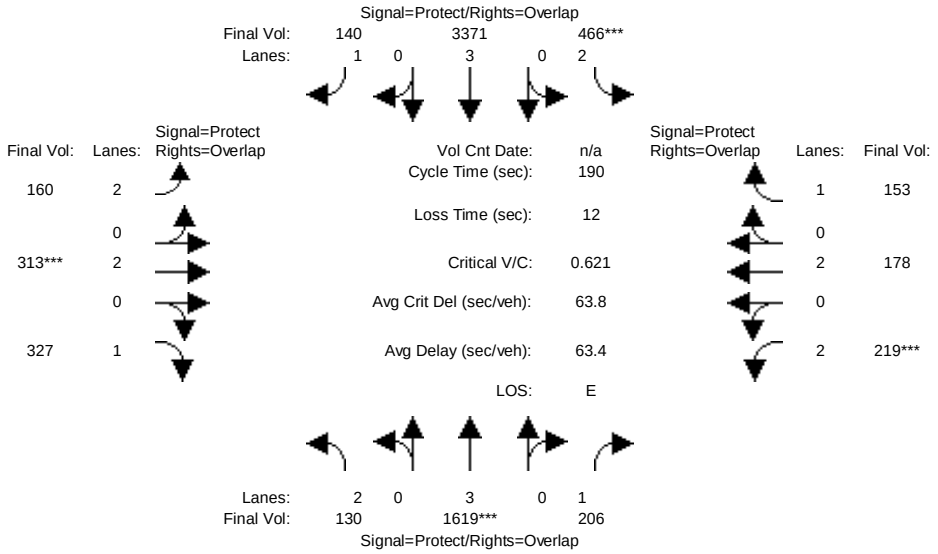
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #51: Lawrence Expressway/Pruneridge Avenue



Street Name:	Lawrence Expressway						Pruneridge Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	18	107	107	28	117	117	17	33	33	22	38	38
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	130	2042	206	466	4111	140	160	280	327	219	148	153
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	130	2042	206	466	4111	140	160	280	327	219	148	153
Added Vol:	0	61	0	0	0	0	0	33	0	0	30	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	130	2103	206	466	4111	140	160	313	327	219	178	153
User Adj:	1.00	0.77	1.00	1.00	0.82	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:	130	1619	206	466	3371	140	160	313	327	219	178	153
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	130	1619	206	466	3371	140	160	313	327	219	178	153
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	130	1619	206	466	3371	140	160	313	327	219	178	153
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.28	0.12	0.15	0.59	0.08	0.05	0.08	0.19	0.07	0.05	0.09
Crit Moves:		****		****				****		****		
Green Time:	16.9	101	121.3	26.3	110	126.0	16.0	31.0	48.0	20.7	35.7	62.1
Volume/Cap:	0.46	0.54	0.18	1.07	1.02	0.12	0.60	0.50	0.74	0.64	0.25	0.27
Uniform Del:	87.4	31.2	15.0	87.0	42.5	12.4	89.2	77.0	69.4	86.2	69.8	50.2
IncremntDel:	5.4	0.7	0.4	62.1	21.3	0.2	9.8	2.9	10.6	8.8	0.8	1.1
InitQueuDel:	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:	92.8	31.9	15.3	149.1	63.8	12.7	99.0	80.0	80.0	95.0	70.7	51.3
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:	92.8	31.9	15.3	149.1	63.8	12.7	99.0	80.0	80.0	95.0	70.7	51.3
LOS by Move:	F	C	B	F	E	B	F	E-	F	F	E	D-
HCM2kAvgQ:	125	526	134	573	1911	81	163	224	519	215	115	181

Note: Queue reported is the distance per lane in feet.

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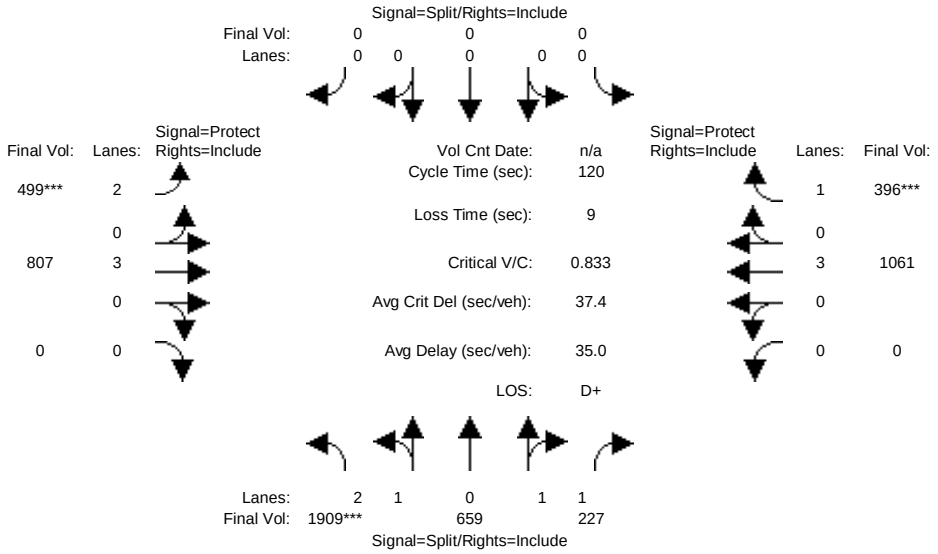
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #52: Stevens Creek Boulevard/Lawrence Expressway Ramps East



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps East					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	0	0	0	7	10	0	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	1874	659	227	0	0	0	499	780	0	0	1017	396
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1874	659	227	0	0	0	499	780	0	0	1017	396
Added Vol:	35	0	0	0	0	0	0	27	0	0	44	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1909	659	227	0	0	0	499	807	0	0	1061	396
User Adj:	1.00	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:	1909	659	227	0	0	0	499	807	0	0	1061	396
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1909	659	227	0	0	0	499	807	0	0	1061	396
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	1909	659	227	0	0	0	499	807	0	0	1061	396
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.87	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	3.00	1.00	1.00	0.00	0.00	0.00	2.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	4946	1897	1750	0	0	0	3150	5700	0	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.39	0.35	0.13	0.00	0.00	0.00	0.16	0.14	0.00	0.00	0.19	0.23
Crit Moves:	****						****					****
Green Time:	55.6	55.6	55.6	0.0	0.0	0.0	22.8	55.4	0.0	0.0	32.6	32.6
Volume/Cap:	0.83	0.75	0.28	0.00	0.00	0.00	0.83	0.31	0.00	0.00	0.69	0.83
Uniform Del:	28.2	26.5	19.9	0.0	0.0	0.0	46.8	20.3	0.0	0.0	39.1	41.1
IncremntDel:	2.6	1.4	0.1	0.0	0.0	0.0	12.8	0.3	0.0	0.0	2.5	15.6
InitQueuDel:	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	1.00	1.00	0.00	0.00	1.00	1.00
Delay/Veh:	30.7	27.9	19.9	0.0	0.0	0.0	59.6	20.6	0.0	0.0	41.6	56.8
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:	30.7	27.9	19.9	0.0	0.0	0.0	59.6	20.6	0.0	0.0	41.6	56.8
LOS by Move:	C	C	B-	A	A	A	E+	C+	A	A	D	E+
HCM2kAvgQ:	636	520	136	0	0	0	305	154	0	0	313	430

Note: Queue reported is the distance per lane in feet.

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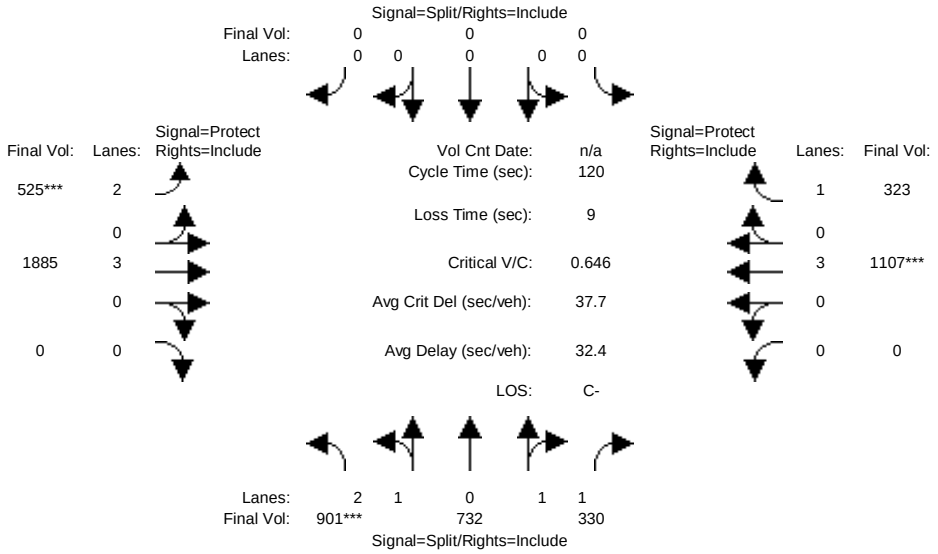
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #52: Stevens Creek Boulevard/Lawrence Expressway Ramps East



Street Name:	Stevens Creek Boulevard						Lawrence Expressway Ramps East					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	50	50	50	0	0	0	30	70	0	0	40	40
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	779	732	330	0	0	0	525	1720	0	0	955	323
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	779	732	330	0	0	0	525	1720	0	0	955	323
Added Vol:	122	0	0	0	0	0	0	165	0	0	152	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	901	732	330	0	0	0	525	1885	0	0	1107	323
User Adj:	1.00	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:	901	732	330	0	0	0	525	1885	0	0	1107	323
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	901	732	330	0	0	0	525	1885	0	0	1107	323
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	901	732	330	0	0	0	525	1885	0	0	1107	323
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.84	0.98	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.35	1.65	1.00	0.00	0.00	0.00	2.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	3758	3053	1750	0	0	0	3150	5700	0	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.24	0.24	0.19	0.00	0.00	0.00	0.17	0.33	0.00	0.00	0.19	0.18
Crit Moves:	****						****				****	
Green Time:	46.5	46.5	46.5	0.0	0.0	0.0	27.9	65.1	0.0	0.0	37.2	37.2
Volume/Cap:	0.62	0.62	0.49	0.00	0.00	0.00	0.72	0.61	0.00	0.00	0.63	0.60
Uniform Del:	31.8	31.8	29.8	0.0	0.0	0.0	45.6	20.2	0.0	0.0	38.1	37.7
IncremntDel:	0.9	0.9	0.4	0.0	0.0	0.0	5.9	0.9	0.0	0.0	1.7	4.8
InitQueuDel:	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	1.00	1.00	0.00	0.00	1.00	1.00
Delay/Veh:	32.7	32.7	30.2	0.0	0.0	0.0	51.5	21.1	0.0	0.0	39.8	42.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	32.7	32.7	30.2	0.0	0.0	0.0	51.5	21.1	0.0	0.0	39.8	42.4
LOS by Move:	C-	C-	C	A	A	A	D-	C+	A	A	D	D
HCM2kAvgQ:	368	368	265	0	0	0	303	434	0	0	323	301

Note: Queue reported is the distance per lane in feet.

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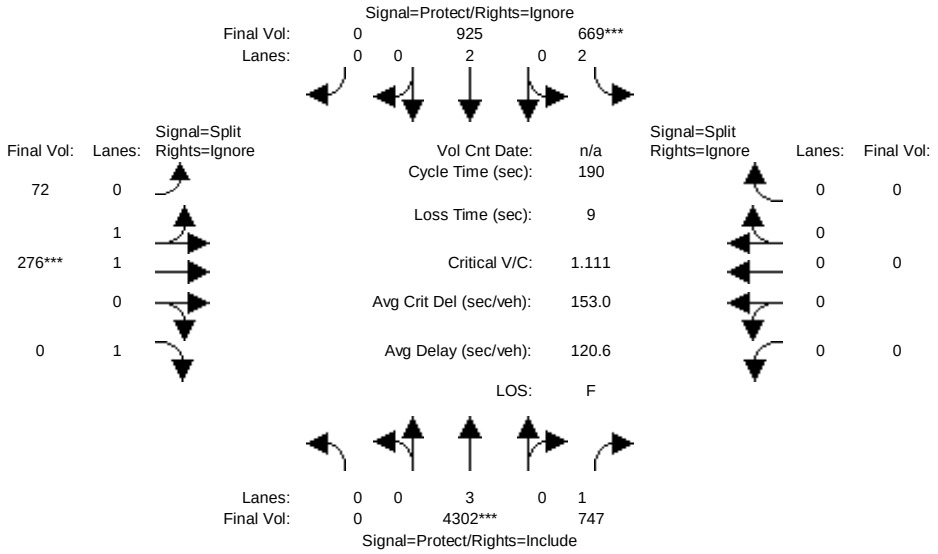
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #53: Lawrence Expressway/I-280 Ramps South



Street Name:	Lawrence Expressway						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	102	120	36	156	0	34	34	34	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	4249	747	669	925	0	72	256	272	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	4249	747	669	925	0	72	256	272	0	0	0
Added Vol:	0	53	0	0	0	0	0	20	32	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	4302	747	669	925	0	72	276	304	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	4302	747	669	925	0	72	276	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	4302	747	669	925	0	72	276	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	4302	747	669	925	0	72	276	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.95	0.98	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	0.43	1.57	1.00	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	765	2934	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.75	0.43	0.21	0.24	0.00	0.09	0.09	0.00	0.00	0.00	0.00
Crit Moves:		****		****				****				
Green Time:	0.0	115	114.6	34.4	149	0.0	32.5	32.5	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	1.25	0.71	1.17	0.31	0.00	0.55	0.55	0.00	0.00	0.00	0.00
Uniform Del:	0.0	39.5	27.4	81.5	6.1	0.0	75.5	75.5	0.0	0.0	0.0	0.0
IncremntDel:	0.0	116	4.0	95.7	0.3	0.0	3.4	3.4	0.0	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	155	31.4	177.2	6.4	0.0	78.9	78.9	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	155	31.4	177.2	6.4	0.0	78.9	78.9	0.0	0.0	0.0	0.0
LOS by Move:	A	F	C	F	A	A	E-	E-	A	A	A	A
HCM2kAvgQ:	0	2993	834	852	194	0	255	255	0	0	0	0

Note: Queue reported is the distance per lane in feet.

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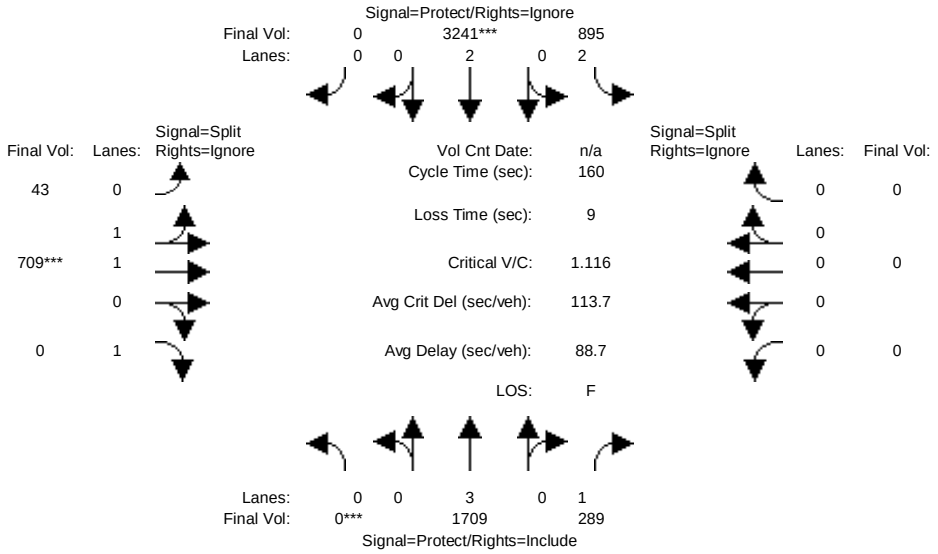
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #53: Lawrence Expressway/I-280 Ramps South



Street Name:	Lawrence Expressway						I-280 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	43	43	50	119	0	41	41	41	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1527	289	895	3241	0	43	586	643	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1527	289	895	3241	0	43	586	643	0	0	0
Added Vol:	0	182	0	0	0	0	0	123	198	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1709	289	895	3241	0	43	709	841	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	1709	289	895	3241	0	43	709	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1709	289	895	3241	0	43	709	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	1709	289	895	3241	0	43	709	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.95	0.98	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	0.12	1.88	1.00	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	212	3488	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.30	0.17	0.28	0.85	0.00	0.20	0.20	0.00	0.00	0.00	0.00
Crit Moves:	****				****			****				
Green Time:	0.0	56.7	56.7	56.0	113	0.0	38.8	38.8	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.85	0.47	0.81	1.21	0.00	0.84	0.84	0.00	0.00	0.00	0.00
Uniform Del:	0.0	50.3	42.2	49.9	25.0	0.0	60.8	60.8	0.0	0.0	0.0	0.0
IncremntDel:	0.0	4.6	2.5	6.6	98.8	0.0	9.2	9.2	0.0	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	54.9	44.7	56.5	124	0.0	70.0	70.0	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	54.9	44.7	56.5	124	0.0	70.0	70.0	0.0	0.0	0.0	0.0
LOS by Move:	A	D-	D	E+	F	A	E	E	A	A	A	A
HCM2kAvgQ:	0	720	306	664	2911	0	523	523	0	0	0	0

Note: Queue reported is the distance per lane in feet.

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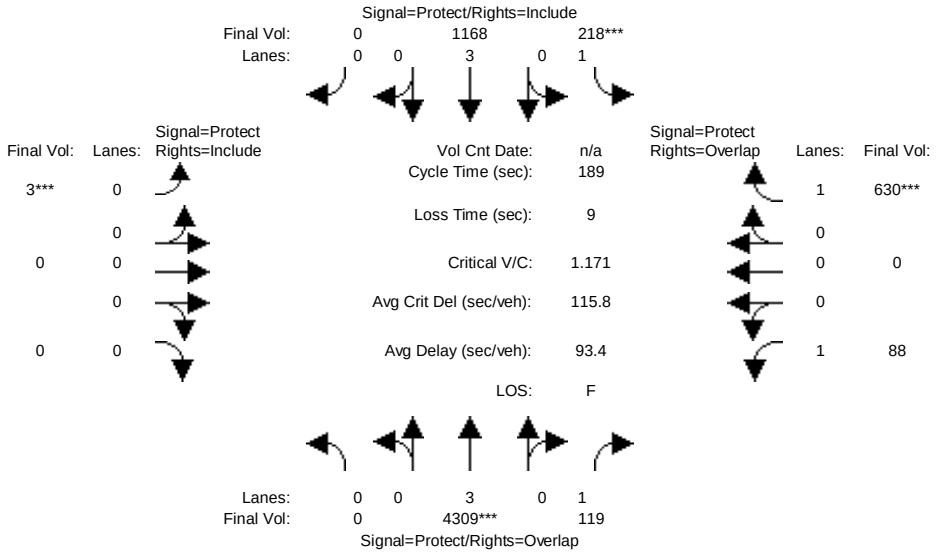
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #54: Lawrence Expressway/Mitty Way



Street Name:	Lawrence Expressway						Mitty Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	129	129	32	161	0	0	0	0	27	0	27
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	4256	119	218	1136	0	3	0	0	88	0	630
Growth Adj:	1.00	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	4256	119	218	1136	0	3	0	0	88	0	630
Added Vol:	0	53	0	0	32	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	4309	119	218	1168	0	3	0	0	88	0	630
User Adj:	1.00	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	4309	119	218	1168	0	3	0	0	88	0	630
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	4309	119	218	1168	0	3	0	0	88	0	630
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	4309	119	218	1168	0	3	0	0	88	0	630
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	3.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5700	0	1750	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.76	0.07	0.12	0.20	0.00	0.00	0.00	0.00	0.05	0.00	0.36
Crit Moves:		****		****			****					****
Green Time:	0.0	124	149.7	30.7	154	0.0	0.2	0.0	0.0	25.9	0.0	56.4
Volume/Cap:	0.00	1.15	0.09	0.77	0.25	0.00	1.45	0.00	0.00	0.37	0.00	1.21
Uniform Del:	0.0	34.0	4.6	78.9	4.1	0.0	98.4	0.0	0.0	77.2	0.0	69.1
IncremntDel:	0.0	72.9	0.1	17.8	0.1	0.0	864.5	0.0	0.0	4.3	0.0	110.1
InitQueuDel:	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	1.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	107	4.7	96.7	4.3	0.0	962.9	0.0	0.0	81.5	0.0	179.2
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	107	4.7	96.7	4.3	0.0	962.9	0.0	0.0	81.5	0.0	179.2
LOS by Move:	A	F	A	F	A	A	F	A	A	F	A	F
HCM2kAvgQ:	0	2715	42	374	131	0	22	0	0	133	0	1414

Note: Queue reported is the distance per lane in feet.

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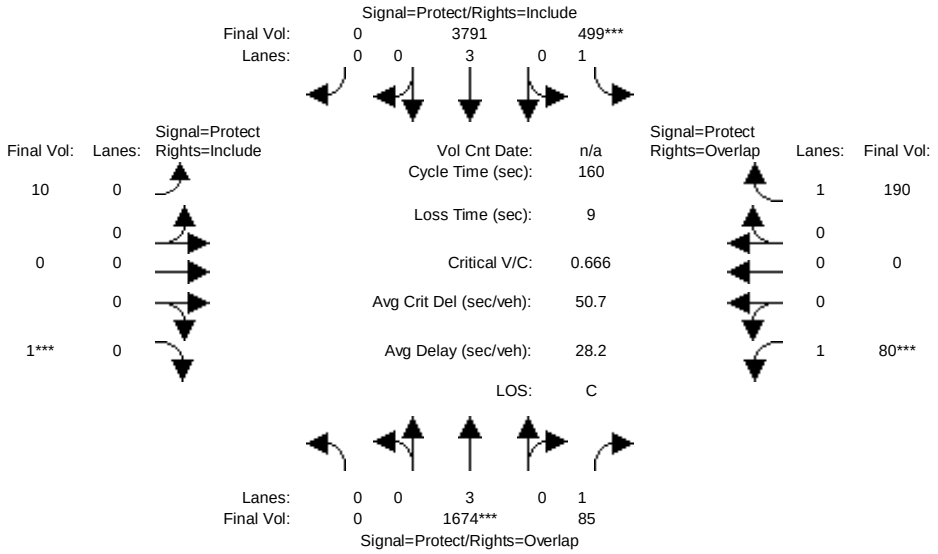
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #54: Lawrence Expressway/Mitty Way



Street Name:	Lawrence Expressway						Mitty Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	82	82	22	131	0	0	0	0	29	0	29
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1492	85	499	3593	0	10	0	1	80	0	190
Growth Adj:	1.00	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	1492	85	499	3593	0	10	0	1	80	0	190
Added Vol:	0	182	0	0	198	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1674	85	499	3791	0	10	0	1	80	0	190
User Adj:	1.00	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	1674	85	499	3791	0	10	0	1	80	0	190
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1674	85	499	3791	0	10	0	1	80	0	190
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1674	85	499	3791	0	10	0	1	80	0	190
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	3.00	0.00	0.91	0.00	0.09	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5700	0	1591	0	159	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.29	0.05	0.29	0.67	0.00	0.01	0.00	0.01	0.05	0.00	0.11
Crit Moves:		****		****					****	****		
Green Time:	0.0	77.6	105.1	45.4	123	0.0	28.5	0.0	1.0	27.5	0.0	72.8
Volume/Cap:	0.00	0.61	0.07	1.01	0.86	0.00	0.04	0.00	1.01	0.27	0.00	0.24
Uniform Del:	0.0	31.7	10.5	60.5	13.5	0.0	57.5	0.0	84.0	60.8	0.0	28.1
IncremntDel:	0.0	1.0	0.1	41.7	2.5	0.0	0.2	0.0	273.9	2.2	0.0	0.7
InitQueuDel:	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	1.00	0.00	1.00	1.00	0.00	1.00
Delay/Veh:	0.0	32.7	10.6	102.2	16.0	0.0	57.7	0.0	357.9	62.9	0.0	28.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	32.7	10.6	102.2	16.0	0.0	57.7	0.0	357.9	62.9	0.0	28.8
LOS by Move:	A	C-	B+	F	B	A	E+	A	F	E	A	C
HCM2kAvgQ:	0	514	41	846	1155	0	13	0	45	97	0	156

Note: Queue reported is the distance per lane in feet.

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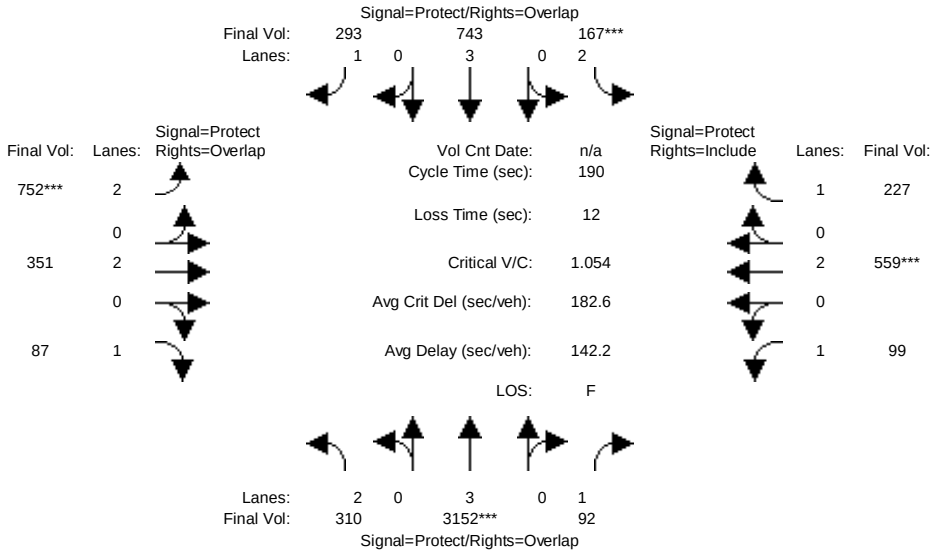
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #55: Lawrence Expressway/Bollinger Road



Street Name:	Lawrence Expressway						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	22	82	82	18	78	78	52	71	71	19	38	38
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	310	3108	92	162	716	293	752	351	87	99	559	218
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	310	3108	92	162	716	293	752	351	87	99	559	218
Added Vol:	0	44	0	5	27	0	0	0	0	0	0	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	310	3152	92	167	743	293	752	351	87	99	559	227
User Adj:	1.00	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:	310	3152	92	167	743	293	752	351	87	99	559	227
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	310	3152	92	167	743	293	752	351	87	99	559	227
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	310	3152	92	167	743	293	752	351	87	99	559	227
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.55	0.05	0.05	0.13	0.17	0.24	0.09	0.05	0.06	0.15	0.13
Crit Moves:		****		****			****				****	
Green Time:	20.7	77.1	95.0	16.9	73.4	122.3	48.9	66.8	87.5	17.9	35.7	35.7
Volume/Cap:	0.90	1.36	0.11	0.59	0.34	0.26	0.93	0.26	0.11	0.60	0.78	0.69
Uniform Del:	89.0	60.0	26.7	88.5	43.8	15.4	73.2	46.8	30.9	87.9	78.1	76.5
IncremntDel:	29.3	166	0.2	9.0	0.4	0.6	18.2	0.5	0.3	15.2	8.3	11.2
InitQueuDel:	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:	118.3	226	26.9	97.5	44.2	16.0	91.4	47.3	31.2	103.1	86.4	87.7
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:	118.3	226	26.9	97.5	44.2	16.0	91.4	47.3	31.2	103.1	86.4	87.7
LOS by Move:	F	F	C	F	D	B	F	D	C	F	F	F
HCM2kAvgQ:	353	2433	77	168	258	200	761	185	78	178	443	371

Note: Queue reported is the distance per lane in feet.

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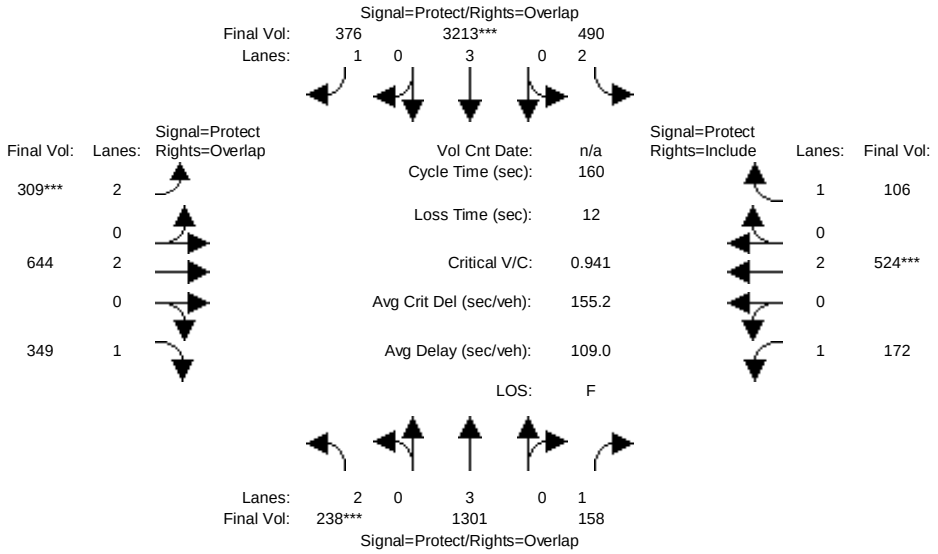
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #55: Lawrence Expressway/Bollinger Road



Street Name:	Lawrence Expressway						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	21	67	67	28	74	74	25	42	42	23	39	39
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	238	1149	158	457	3048	376	309	644	349	172	524	76
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	238	1149	158	457	3048	376	309	644	349	172	524	76
Added Vol:	0	152	0	33	165	0	0	0	0	0	0	30
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	238	1301	158	490	3213	376	309	644	349	172	524	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:	238	1301	158	490	3213	376	309	644	349	172	524	106
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	238	1301	158	490	3213	376	309	644	349	172	524	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:	238	1301	158	490	3213	376	309	644	349	172	524	106
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.23	0.09	0.16	0.56	0.21	0.10	0.17	0.20	0.10	0.14	0.06
Crit Moves:	****				****		****				****	
Green Time:	19.5	63.0	84.0	26.3	69.8	93.0	23.3	38.5	58.0	21.1	36.3	36.3
Volume/Cap:	0.62	0.58	0.17	0.95	1.29	0.37	0.67	0.70	0.55	0.75	0.61	0.27
Uniform Del:	71.7	41.0	21.3	71.1	48.5	19.2	69.6	59.7	43.7	71.9	59.6	54.7
IncremntDel:	7.3	1.1	0.4	28.1	135	1.0	7.8	4.5	3.4	19.6	3.2	1.6
InitQueuDel:	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:	79.0	42.1	21.7	99.2	183	20.2	77.4	64.3	47.1	91.5	62.8	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:	79.0	42.1	21.7	99.2	183	20.2	77.4	64.3	47.1	91.5	62.8	56.4
LOS by Move:	E-	D	C+	F	F	C+	E-	E	D	F	E	E+
HCM2kAvgQ:	199	440	112	477	2135	275	256	405	390	272	317	122

Note: Queue reported is the distance per lane in feet.

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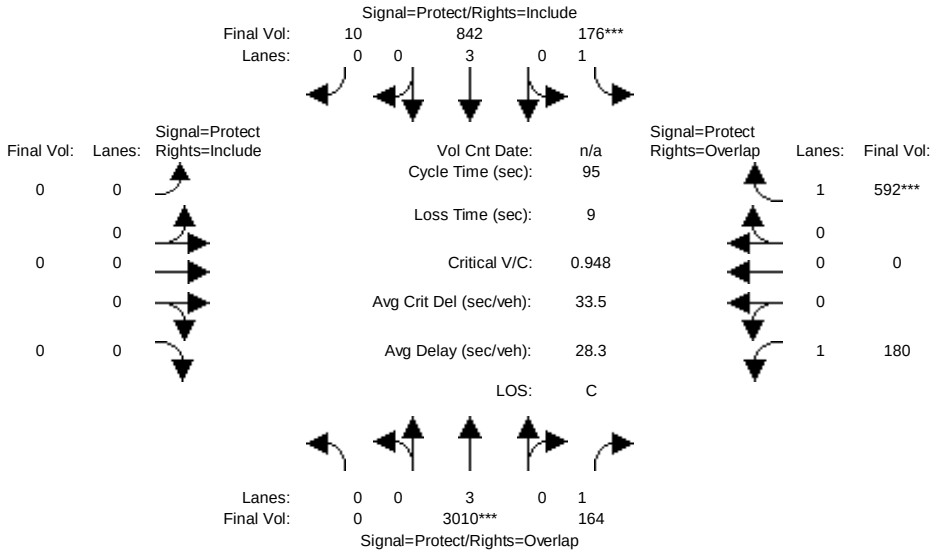
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #56: Lawrence Expressway/Doyle Road



Street Name:	Lawrence Expressway						Doyle Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	61	61	19	79	0	0	0	0	15	0	15
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	2966	164	176	815	10	0	0	0	180	0	592
Growth Adj:	1.00	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	2966	164	176	815	10	0	0	0	180	0	592
Added Vol:	0	44	0	0	27	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	3010	164	176	842	10	0	0	0	180	0	592
User Adj:	1.00	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	3010	164	176	842	10	0	0	0	180	0	592
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	3010	164	176	842	10	0	0	0	180	0	592
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	3010	164	176	842	10	0	0	0	180	0	592
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	2.96	0.04	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5534	66	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.53	0.09	0.10	0.15	0.15	0.00	0.00	0.00	0.10	0.00	0.34
Crit Moves:		****		****								****
Green Time:	0.0	55.7	69.4	17.4	73.1	73.1	0.0	0.0	0.0	13.7	0.0	31.1
Volume/Cap:	0.00	0.90	0.13	0.55	0.20	0.20	0.00	0.00	0.00	0.71	0.00	1.03
Uniform Del:	0.0	18.8	4.2	38.6	3.3	3.3	0.0	0.0	0.0	42.4	0.0	35.0
IncremntDel:	0.0	4.4	0.2	6.7	0.1	0.1	0.0	0.0	0.0	15.8	0.0	46.9
InitQueuDel:	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	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	23.3	4.4	45.3	3.4	3.4	0.0	0.0	0.0	58.2	0.0	81.9
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	23.3	4.4	45.3	3.4	3.4	0.0	0.0	0.0	58.2	0.0	81.9
LOS by Move:	A	C	A	D	A	A	A	A	A	E+	A	F
HCM2kAvgQ:	0	791	42	154	63	63	0	0	0	186	0	725

Note: Queue reported is the distance per lane in feet.

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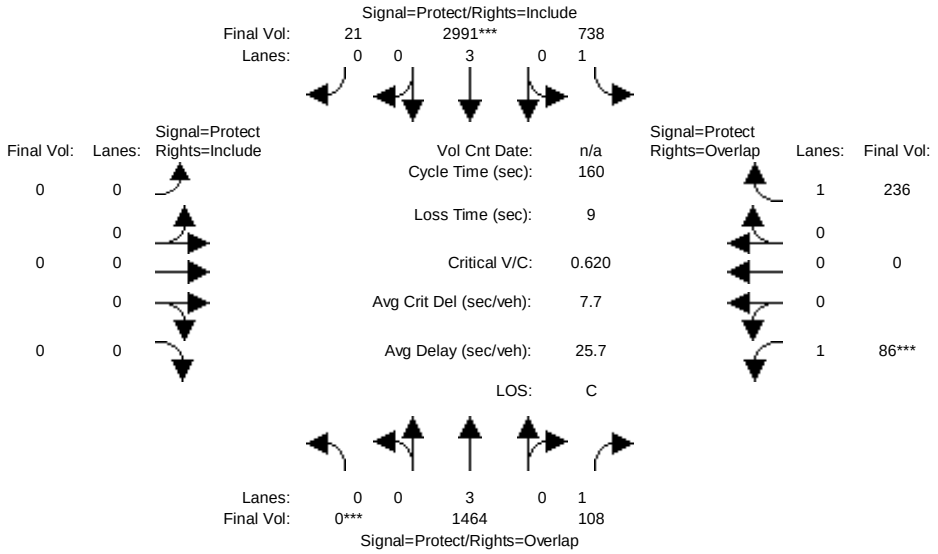
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #56: Lawrence Expressway/Doyle Road



Street Name:	Lawrence Expressway						Doyle Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	31	31	38	141	0	0	0	0	19	0	19
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1312	108	738	2826	21	0	0	0	86	0	236
Growth Adj:	1.00	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	1312	108	738	2826	21	0	0	0	86	0	236
Added Vol:	0	152	0	0	165	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1464	108	738	2991	21	0	0	0	86	0	236
User Adj:	1.00	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	1464	108	738	2991	21	0	0	0	86	0	236
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1464	108	738	2991	21	0	0	0	86	0	236
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	1464	108	738	2991	21	0	0	0	86	0	236
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	1.00	2.98	0.02	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	5700	1750	1750	5561	39	0	0	0	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.26	0.06	0.42	0.54	0.54	0.00	0.00	0.00	0.05	0.00	0.13
Crit Moves:	****				****					****		
Green Time:	0.0	50.5	68.5	83.0	133	133.5	0.0	0.0	0.0	18.0	0.0	101.0
Volume/Cap:	0.00	0.81	0.14	0.81	0.64	0.64	0.00	0.00	0.00	0.44	0.00	0.21
Uniform Del:	0.0	53.2	29.4	33.9	5.0	5.0	0.0	0.0	0.0	70.0	0.0	13.3
IncremntDel:	0.0	4.2	0.4	7.9	0.7	0.7	0.0	0.0	0.0	6.9	0.0	0.4
InitQueuDel:	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	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	57.4	29.8	41.8	5.7	5.7	0.0	0.0	0.0	76.9	0.0	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:	0.0	57.4	29.8	41.8	5.7	5.7	0.0	0.0	0.0	76.9	0.0	13.7
LOS by Move:	A	E+	C	D	A	A	A	A	A	E-	A	B
HCM2kAvgQ:	0	614	88	877	474	474	0	0	0	121	0	135

Note: Queue reported is the distance per lane in feet.

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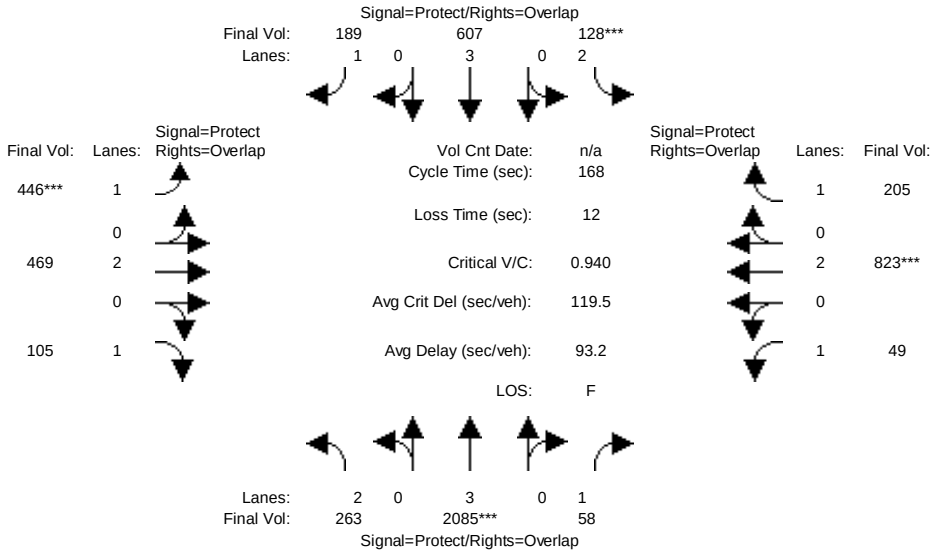
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #57: Lawrence Expressway/Prospect Road



Street Name:	Lawrence Expressway						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	22	57	57	21	56	56	48	75	75	16	43	43
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	263	2041	58	128	580	189	446	469	105	49	823	205
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	263	2041	58	128	580	189	446	469	105	49	823	205
Added Vol:	0	44	0	0	27	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	263	2085	58	128	607	189	446	469	105	49	823	205
User Adj:	1.00	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:	263	2085	58	128	607	189	446	469	105	49	823	205
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	263	2085	58	128	607	189	446	469	105	49	823	205
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	263	2085	58	128	607	189	446	469	105	49	823	205
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.37	0.03	0.04	0.11	0.11	0.25	0.12	0.06	0.03	0.22	0.12
Crit Moves:		****		****			****				****	
Green Time:	20.4	52.9	67.8	19.5	52.0	96.5	44.6	69.6	90.0	14.9	39.9	59.4
Volume/Cap:	0.69	1.16	0.08	0.35	0.34	0.19	0.96	0.30	0.11	0.32	0.91	0.33
Uniform Del:	76.2	62.0	33.3	73.7	48.3	18.4	65.6	35.4	20.7	77.4	67.2	42.8
IncremntDel:	9.7	79.3	0.2	2.6	0.5	0.4	33.1	0.5	0.2	5.3	15.0	1.4
InitQueuDel:	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:	85.9	141	33.6	76.3	48.8	18.8	98.7	35.9	21.0	82.7	82.1	44.3
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:	85.9	141	33.6	76.3	48.8	18.8	98.7	35.9	21.0	82.7	82.1	44.3
LOS by Move:	F	F	C-	E-	D	B-	F	D+	C+	F	F	D
HCM2kAvgQ:	237	1302	51	103	210	129	766	207	74	74	631	217

Note: Queue reported is the distance per lane in feet.

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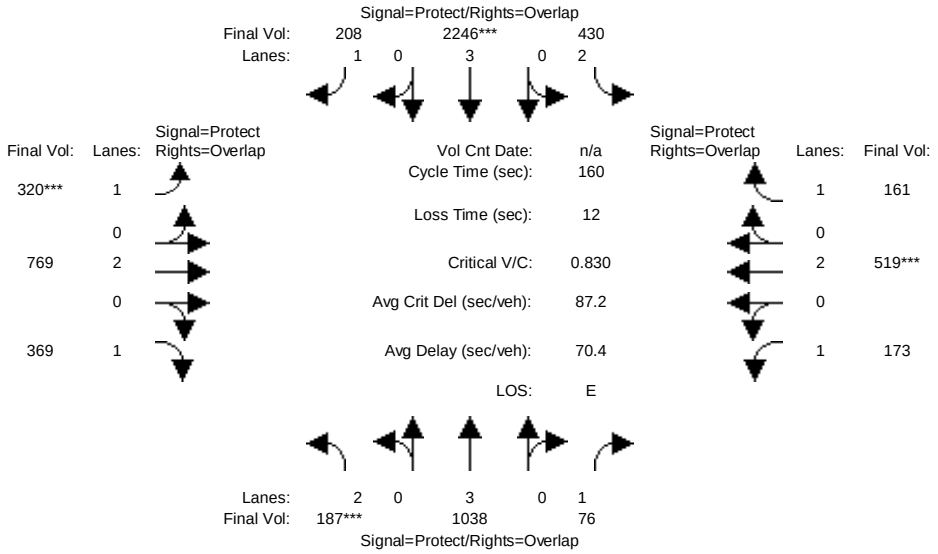
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #57: Lawrence Expressway/Prospect Road



Street Name:	Lawrence Expressway						Prospect Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	20	49	49	34	62	62	38	52	52	26	39	39
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	187	886	76	430	2081	208	320	769	369	173	519	161
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	187	886	76	430	2081	208	320	769	369	173	519	161
Added Vol:	0	152	0	0	165	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	187	1038	76	430	2246	208	320	769	369	173	519	161
User Adj:	1.00	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:	187	1038	76	430	2246	208	320	769	369	173	519	161
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	187	1038	76	430	2246	208	320	769	369	173	519	161
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	187	1038	76	430	2246	208	320	769	369	173	519	161
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.18	0.04	0.14	0.39	0.12	0.18	0.20	0.21	0.10	0.14	0.09
Crit Moves:	****				****		****				****	
Green Time:	18.5	45.9	69.6	31.8	59.2	94.3	35.1	47.5	66.0	23.7	36.1	67.9
Volume/Cap:	0.51	0.64	0.10	0.69	1.07	0.20	0.83	0.68	0.51	0.67	0.61	0.22
Uniform Del:	71.9	53.8	28.9	64.3	54.5	16.5	64.5	53.6	37.9	69.6	60.1	31.6
IncremntDel:	5.1	1.9	0.3	6.0	39.6	0.4	18.7	3.3	2.6	12.8	3.2	0.7
InitQueuDel:	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:	77.0	55.7	29.1	70.3	94.1	17.0	83.1	57.0	40.4	82.4	63.3	32.2
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:	77.0	55.7	29.1	70.3	94.1	17.0	83.1	57.0	40.4	82.4	63.3	32.2
LOS by Move:	E-	E+	C	E	F	B	F	E+	D	F	E	C-
HCM2kAvgQ:	152	403	61	337	1223	133	487	457	384	257	316	140

Note: Queue reported is the distance per lane in feet.

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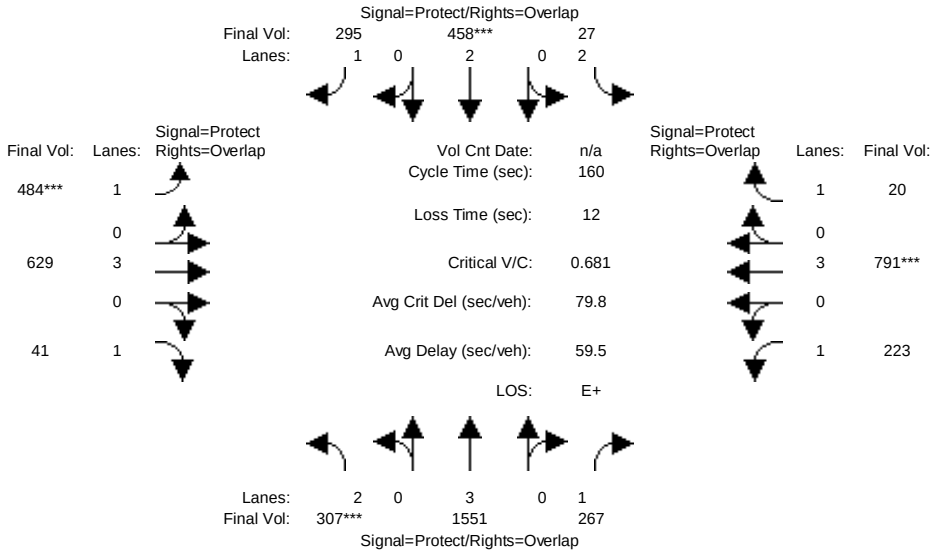
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #58: Lawrence Expressway/Saratoga Avenue



Street Name:	Lawrence Expressway						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	14	61	61	9	55	55	51	61	61	29	39	39
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	307	1525	267	27	442	284	466	629	41	223	791	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	307	1525	267	27	442	284	466	629	41	223	791	20
Added Vol:	0	26	0	0	16	11	18	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	307	1551	267	27	458	295	484	629	41	223	791	20
User Adj:	1.00	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:	307	1551	267	27	458	295	484	629	41	223	791	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	307	1551	267	27	458	295	484	629	41	223	791	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	307	1551	267	27	458	295	484	629	41	223	791	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	5700	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.27	0.15	0.01	0.12	0.17	0.28	0.11	0.02	0.13	0.14	0.01
Crit Moves:	****				****		****				****	
Green Time:	14.0	56.7	83.7	8.4	51.2	98.6	47.4	56.7	70.7	27.0	36.3	44.7
Volume/Cap:	1.12	0.77	0.29	0.16	0.38	0.27	0.93	0.31	0.05	0.76	0.61	0.04
Uniform Del:	78.5	49.2	23.1	77.9	45.2	15.2	58.8	40.3	27.4	68.1	59.7	45.2
IncremntDel:	89.7	2.9	0.8	2.1	0.9	0.6	25.9	0.4	0.1	16.4	2.2	0.2
InitQueuDel:	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:	168.2	52.1	23.9	80.0	46.1	15.9	84.7	40.7	27.6	84.6	61.9	45.4
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:	168.2	52.1	23.9	80.0	46.1	15.9	84.7	40.7	27.6	84.6	61.9	45.4
LOS by Move:	F	D-	C	F	D	B	F	D	C	F	E	D
HCM2kAvgQ:	376	619	205	23	226	186	762	193	32	337	320	20

Note: Queue reported is the distance per lane in feet.

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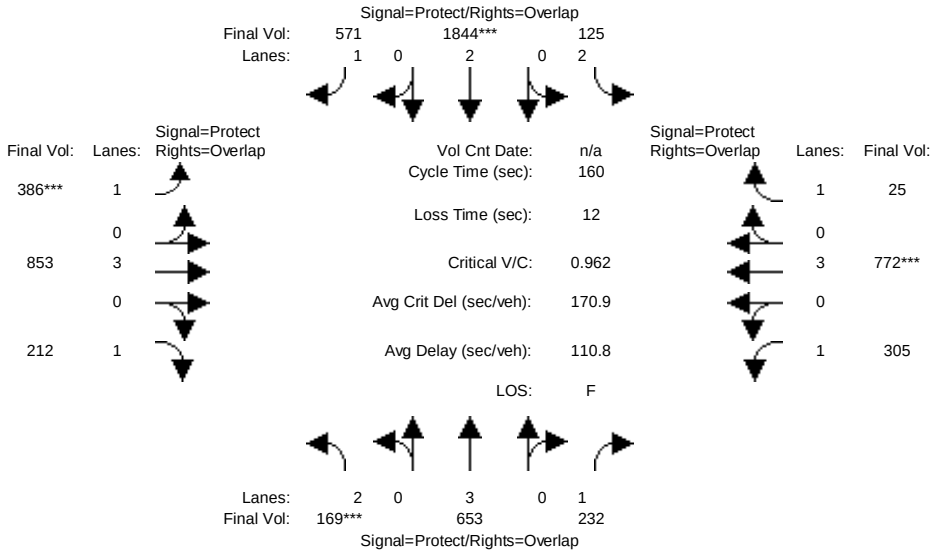
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #58: Lawrence Expressway/Saratoga Avenue



Street Name:	Lawrence Expressway						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	16	56	56	20	60	60	39	46	46	38	46	46
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	169	562	232	125	1745	505	325	853	212	305	772	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	169	562	232	125	1745	505	325	853	212	305	772	25
Added Vol:	0	91	0	0	99	66	61	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	169	653	232	125	1844	571	386	853	212	305	772	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:	169	653	232	125	1844	571	386	853	212	305	772	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	653	232	125	1844	571	386	853	212	305	772	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:	169	653	232	125	1844	571	386	853	212	305	772	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	5700	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.11	0.13	0.04	0.49	0.33	0.22	0.15	0.12	0.17	0.14	0.01
Crit Moves:	****				****		****				****	
Green Time:	14.8	51.8	87.4	18.5	55.5	91.6	36.1	43.0	57.8	35.6	42.5	61.0
Volume/Cap:	0.58	0.35	0.24	0.34	1.40	0.57	0.98	0.56	0.34	0.78	0.51	0.04
Uniform Del:	75.3	44.7	20.6	70.5	56.5	23.5	66.6	54.3	40.1	63.4	53.9	33.6
IncremntDel:	8.2	0.5	0.6	2.6	184	2.4	40.2	1.5	1.4	14.6	1.2	0.1
InitQueuDel:	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:	83.5	45.2	21.2	73.0	241	25.8	106.8	55.8	41.5	78.0	55.1	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:	83.5	45.2	21.2	73.0	241	25.8	106.8	55.8	41.5	78.0	55.1	33.7
LOS by Move:	F	D	C+	E	F	C	F	E+	D	E-	E+	C-
HCM2kAvgQ:	148	213	166	96	2010	505	667	324	213	447	288	21

Note: Queue reported is the distance per lane in feet.

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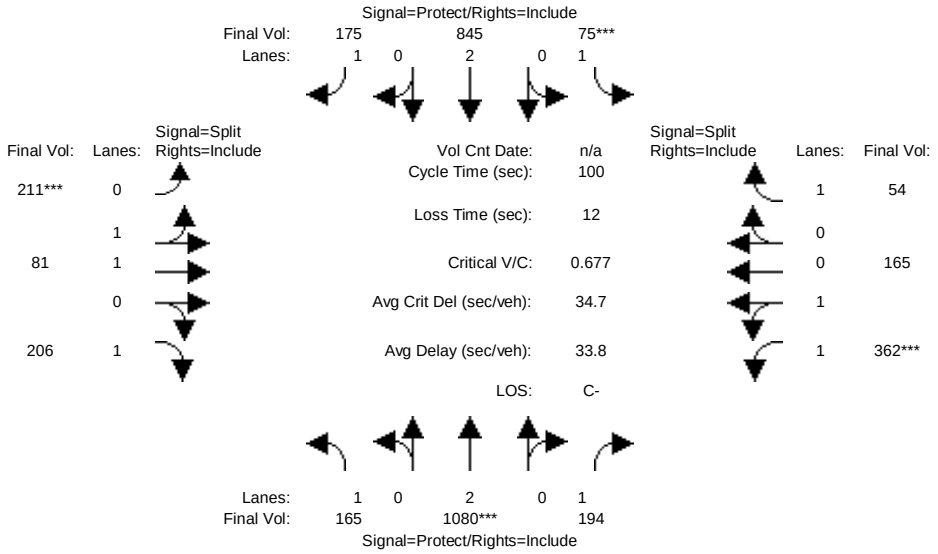
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #59: Saratoga Avenue/Cox Avenue



Street Name:	Cox Avenue						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	165	1062	194	75	834	175	211	81	206	362	165	54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	165	1062	194	75	834	175	211	81	206	362	165	54
Added Vol:	0	18	0	0	11	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	165	1080	194	75	845	175	211	81	206	362	165	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:	165	1080	194	75	845	175	211	81	206	362	165	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	165	1080	194	75	845	175	211	81	206	362	165	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:	165	1080	194	75	845	175	211	81	206	362	165	54
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.38	0.62	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	1900	1750	2438	1111	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.28	0.11	0.04	0.22	0.10	0.12	0.04	0.12	0.15	0.15	0.03
Crit Moves:		****		****			****			****		
Green Time:	14.5	41.6	41.6	7.0	34.1	34.1	17.7	17.7	17.7	21.7	21.7	21.7
Volume/Cap:	0.65	0.68	0.27	0.61	0.65	0.29	0.68	0.24	0.67	0.68	0.68	0.14
Uniform Del:	40.4	23.8	19.2	45.2	27.9	24.1	38.6	35.4	38.4	36.0	36.0	31.6
IncremntDel:	12.3	2.4	0.9	20.7	2.6	1.2	8.6	0.5	10.9	4.9	4.9	0.8
InitQueuDel:	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	26.2	20.1	65.9	30.4	25.3	47.1	35.9	49.3	40.8	40.8	32.4
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:	52.7	26.2	20.1	65.9	30.4	25.3	47.1	35.9	49.3	40.8	40.8	32.4
LOS by Move:	D-	C	C+	E	C	C	D	D+	D	D	D	C-
HCM2kAvgQ:	159	356	105	88	292	107	196	56	189	228	228	37

Note: Queue reported is the distance per lane in feet.

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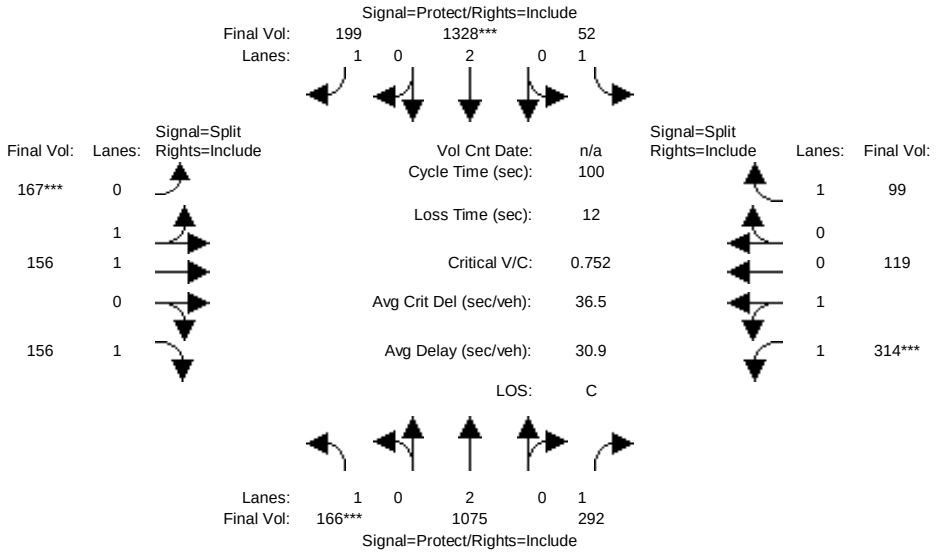
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #59: Saratoga Avenue/Cox Avenue



Street Name:	Cox Avenue						Saratoga Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	166	1014	292	52	1262	199	167	156	156	314	119	99
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	166	1014	292	52	1262	199	167	156	156	314	119	99
Added Vol:	0	61	0	0	66	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	166	1075	292	52	1328	199	167	156	156	314	119	99
User Adj:	1.00	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:	166	1075	292	52	1328	199	167	156	156	314	119	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	166	1075	292	52	1328	199	167	156	156	314	119	99
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	166	1075	292	52	1328	199	167	156	156	314	119	99
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.46	0.54	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	1900	1750	2574	976	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.28	0.17	0.03	0.35	0.11	0.10	0.08	0.09	0.12	0.12	0.06
Crit Moves:	****				****		****			****		
Green Time:	12.6	47.4	47.4	11.7	46.5	46.5	12.7	12.7	12.7	16.2	16.2	16.2
Volume/Cap:	0.75	0.60	0.35	0.25	0.75	0.24	0.75	0.65	0.70	0.75	0.75	0.35
Uniform Del:	42.2	19.3	16.6	40.2	22.0	16.2	42.1	41.5	41.8	40.0	40.0	37.2
IncremntDel:	20.8	1.5	1.2	3.0	3.0	0.7	11.5	6.4	17.0	8.8	8.8	3.4
InitQueuDel:	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	20.8	17.8	43.1	25.0	16.9	53.7	47.9	58.8	48.8	48.8	40.6
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:	63.0	20.8	17.8	43.1	25.0	16.9	53.7	47.9	58.8	48.8	48.8	40.6
LOS by Move:	E	C+	B	D	C	B	D-	D	E+	D	D	D
HCM2kAvgQ:	179	310	153	44	448	99	179	143	161	214	214	79

Note: Queue reported is the distance per lane in feet.

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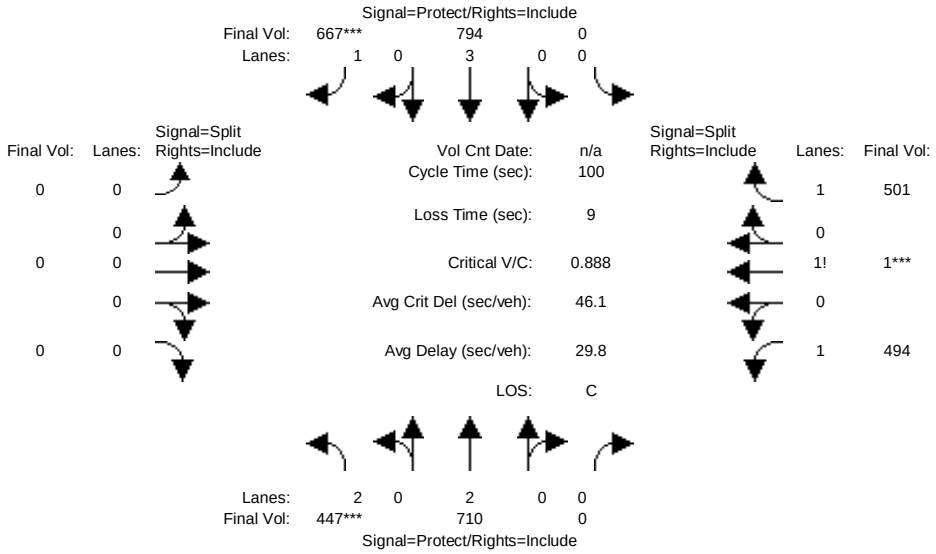
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #60: Saratoga Avenue/SR 85 Ramps North



Street Name:	Saratoga Avenue						SR 85 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	447	710	0	0	783	667	0	0	0	494	1	483
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	447	710	0	0	783	667	0	0	0	494	1	483
Added Vol:	0	0	0	0	11	0	0	0	0	0	0	18
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	447	710	0	0	794	667	0	0	0	494	1	501
User Adj:	1.00	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:	447	710	0	0	794	667	0	0	0	494	1	501
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	447	710	0	0	794	667	0	0	0	494	1	501
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	447	710	0	0	794	667	0	0	0	494	1	501
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	2.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.49	0.01	1.50
Final Sat.:	3150	3800	0	0	5700	1750	0	0	0	2617	4	2629
Capacity Analysis Module:												
Vol/Sat:	0.14	0.19	0.00	0.00	0.14	0.38	0.00	0.00	0.00	0.19	0.28	0.19
Crit Moves:	****					****					****	
Green Time:	16.0	58.9	0.0	0.0	42.9	42.9	0.0	0.0	0.0	32.1	32.1	32.1
Volume/Cap:	0.89	0.32	0.00	0.00	0.32	0.89	0.00	0.00	0.00	0.59	0.89	0.59
Uniform Del:	41.1	10.4	0.0	0.0	18.9	26.3	0.0	0.0	0.0	28.4	32.2	28.5
IncremntDel:	20.2	0.4	0.0	0.0	0.4	14.7	0.0	0.0	0.0	1.5	10.5	1.6
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	61.3	10.8	0.0	0.0	19.3	41.0	0.0	0.0	0.0	29.9	42.8	30.0
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:	61.3	10.8	0.0	0.0	19.3	41.0	0.0	0.0	0.0	29.9	42.8	30.0
LOS by Move:	E	B+	A	A	B-	D	A	A	A	C	D	C
HCM2kAvgQ:	246	139	0	0	134	598	0	0	0	243	482	246

Note: Queue reported is the distance per lane in feet.

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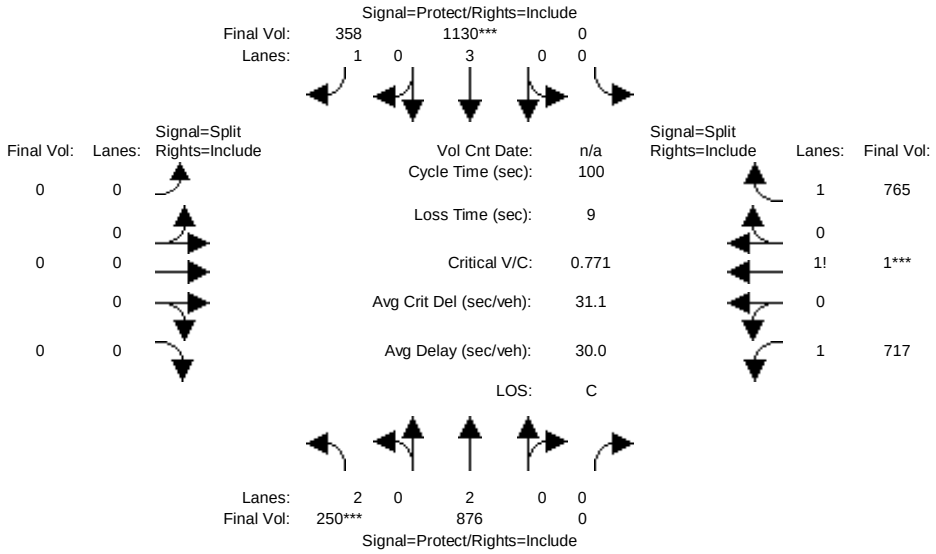
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #60: Saratoga Avenue/SR 85 Ramps North



Street Name:	Saratoga Avenue						SR 85 Ramps North					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	250	876	0	0	1064	358	0	0	0	717	1	704
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	250	876	0	0	1064	358	0	0	0	717	1	704
Added Vol:	0	0	0	0	66	0	0	0	0	0	0	61
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	250	876	0	0	1130	358	0	0	0	717	1	765
User Adj:	1.00	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:	250	876	0	0	1130	358	0	0	0	717	1	765
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	250	876	0	0	1130	358	0	0	0	717	1	765
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	250	876	0	0	1130	358	0	0	0	717	1	765
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	2.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.48	0.01	1.51
Final Sat.:	3150	3800	0	0	5700	1750	0	0	0	2596	2	2652
Capacity Analysis Module:												
Vol/Sat:	0.08	0.23	0.00	0.00	0.20	0.20	0.00	0.00	0.00	0.28	0.42	0.29
Crit Moves:	****				****						****	
Green Time:	10.3	36.0	0.0	0.0	25.7	25.7	0.0	0.0	0.0	55.0	55.0	55.0
Volume/Cap:	0.77	0.64	0.00	0.00	0.77	0.80	0.00	0.00	0.00	0.50	0.77	0.52
Uniform Del:	43.7	26.6	0.0	0.0	34.4	34.7	0.0	0.0	0.0	14.0	17.6	14.2
IncremntDel:	16.2	2.3	0.0	0.0	4.0	13.6	0.0	0.0	0.0	0.6	3.1	0.7
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	59.9	28.9	0.0	0.0	38.4	48.3	0.0	0.0	0.0	14.6	20.6	14.9
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:	59.9	28.9	0.0	0.0	38.4	48.3	0.0	0.0	0.0	14.6	20.6	14.9
LOS by Move:	E+	C	A	A	D+	D	A	A	A	B	C+	B
HCM2kAvgQ:	128	290	0	0	312	330	0	0	0	252	513	268

Note: Queue reported is the distance per lane in feet.

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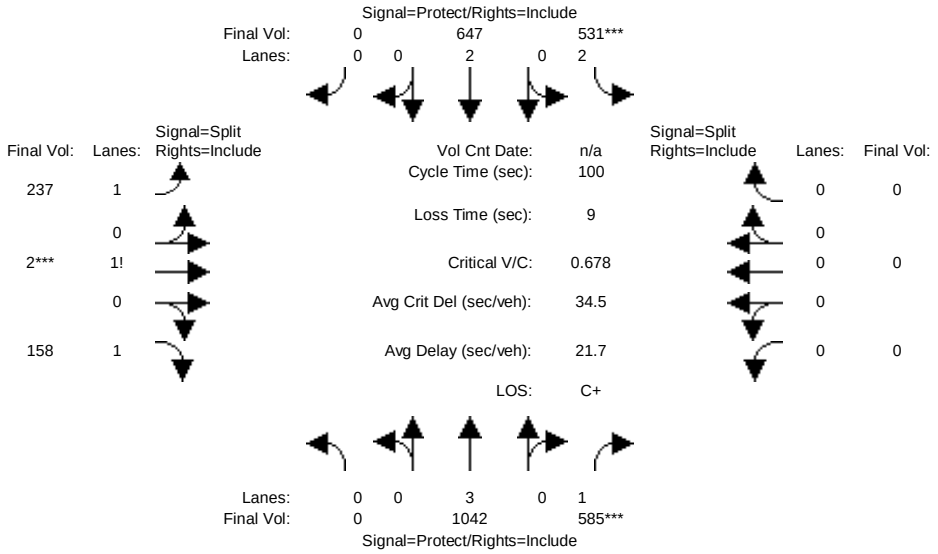
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #61: Saratoga Avenue/SR 85 Ramps South



Street Name:	Saratoga Avenue						SR 85 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	1042	585	520	647	0	237	2	158	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1042	585	520	647	0	237	2	158	0	0	0
Added Vol:	0	0	0	11	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1042	585	531	647	0	237	2	158	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	1042	585	531	647	0	237	2	158	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1042	585	531	647	0	237	2	158	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	1042	585	531	647	0	237	2	158	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	1.59	0.01	1.40	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	2789	18	2443	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.33	0.17	0.17	0.00	0.08	0.11	0.06	0.00	0.00	0.00
Crit Moves:			****	****				****				
Green Time:	0.0	49.3	49.3	24.9	74.2	0.0	16.8	16.8	16.8	0.0	0.0	0.0
Volume/Cap:	0.00	0.37	0.68	0.68	0.23	0.00	0.51	0.68	0.38	0.00	0.00	0.00
Uniform Del:	0.0	15.7	19.3	33.9	4.0	0.0	37.8	39.0	37.0	0.0	0.0	0.0
IncremntDel:	0.0	0.4	4.3	4.7	0.2	0.0	2.3	6.2	1.1	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	16.1	23.6	38.6	4.2	0.0	40.1	45.3	38.1	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	16.1	23.6	38.6	4.2	0.0	40.1	45.3	38.1	0.0	0.0	0.0
LOS by Move:	A	B	C	D+	A	A	D	D	D+	A	A	A
HCM2kAvgQ:	0	164	386	235	81	0	126	187	91	0	0	0

Note: Queue reported is the distance per lane in feet.

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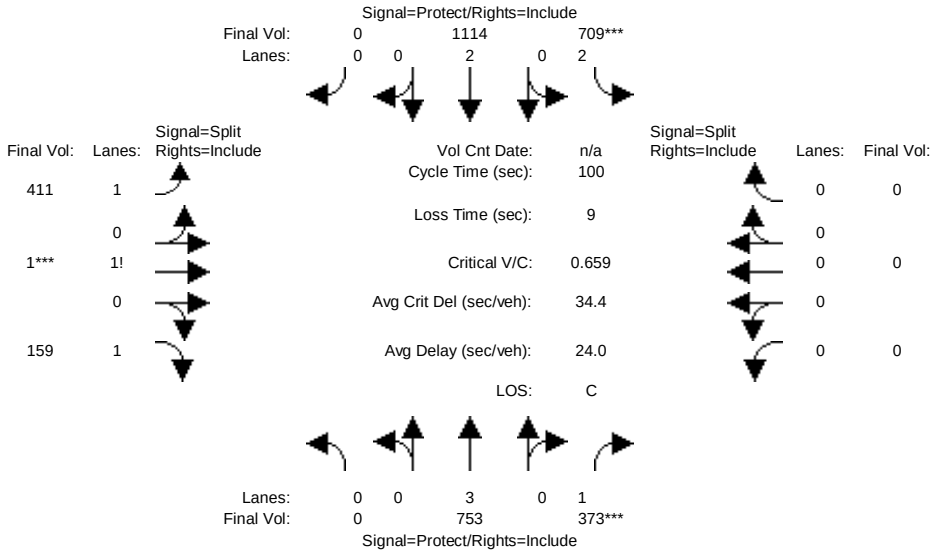
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #61: Saratoga Avenue/SR 85 Ramps South



Street Name:	Saratoga Avenue						SR 85 Ramps South					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	753	373	643	1114	0	411	1	159	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	753	373	643	1114	0	411	1	159	0	0	0
Added Vol:	0	0	0	66	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	753	373	709	1114	0	411	1	159	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	753	373	709	1114	0	411	1	159	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	753	373	709	1114	0	411	1	159	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	753	373	709	1114	0	411	1	159	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.93	0.95	0.92	0.92	1.00	0.92
Lanes:	0.00	3.00	1.00	2.00	2.00	0.00	1.71	0.01	1.28	0.00	0.00	0.00
Final Sat.:	0	5700	1750	3150	3800	0	3045	6	2241	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.13	0.21	0.23	0.29	0.00	0.13	0.16	0.07	0.00	0.00	0.00
Crit Moves:			****	****				****				
Green Time:	0.0	32.3	32.3	34.1	66.5	0.0	24.5	24.5	24.5	0.0	0.0	0.0
Volume/Cap:	0.00	0.41	0.66	0.66	0.44	0.00	0.55	0.66	0.29	0.00	0.00	0.00
Uniform Del:	0.0	26.4	29.1	28.0	8.0	0.0	32.9	34.0	30.6	0.0	0.0	0.0
IncremntDel:	0.0	0.7	5.9	3.2	0.6	0.0	2.1	3.9	0.4	0.0	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	27.1	35.0	31.2	8.5	0.0	35.0	37.9	31.0	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	27.1	35.0	31.2	8.5	0.0	35.0	37.9	31.0	0.0	0.0	0.0
LOS by Move:	A	C	D+	C	A	A	D+	D+	C	A	A	A
HCM2kAvgQ:	0	153	287	276	199	0	185	237	86	0	0	0

Note: Queue reported is the distance per lane in feet.

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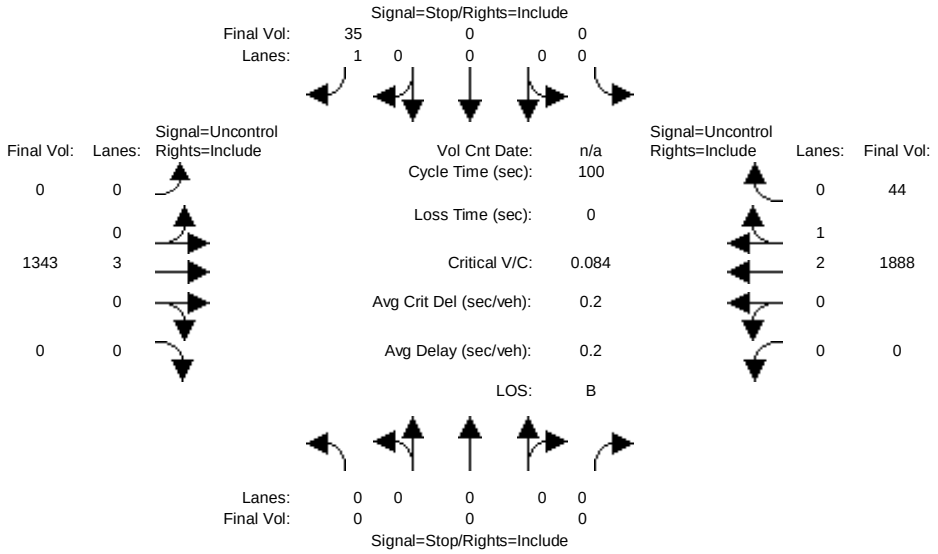
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #62: Stevens Creek Boulevard/Vallco Driveway 5



Street Name:	Vallco Driveway 5						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	0	0	0	0	0	35	0	1343	0	0	1888	44
Growth Adj:	1.00	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	0	0	35	0	1343	0	0	1888	44
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	0	0	35	0	1343	0	0	1888	44
User Adj:	1.00	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	0	0	35	0	1343	0	0	1888	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	35	0	1343	0	0	1888	44
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	651	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	416	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	416	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.08	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	6.9	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	14.5	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	B	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			14.5			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	0 0	0	0 0	0 0	1	0 0	3 0	0	0 0	2 1	0
Initial Vol:	0	0	0	0	0	35	0	1343	0	0	1888	44
ApproachDel:	xxxxxx			14.5			xxxxxx			xxxxxx		

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=35]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=3310]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	0 0	0	0 0	0 0	1	0 0	3 0	0	0 0	2 1	0
Initial Vol:	0	0	0	0	0	35	0	1343	0	0	1888	44

Major Street Volume: 3275
Minor Approach Volume: 35
Minor Approach Volume Threshold: -124 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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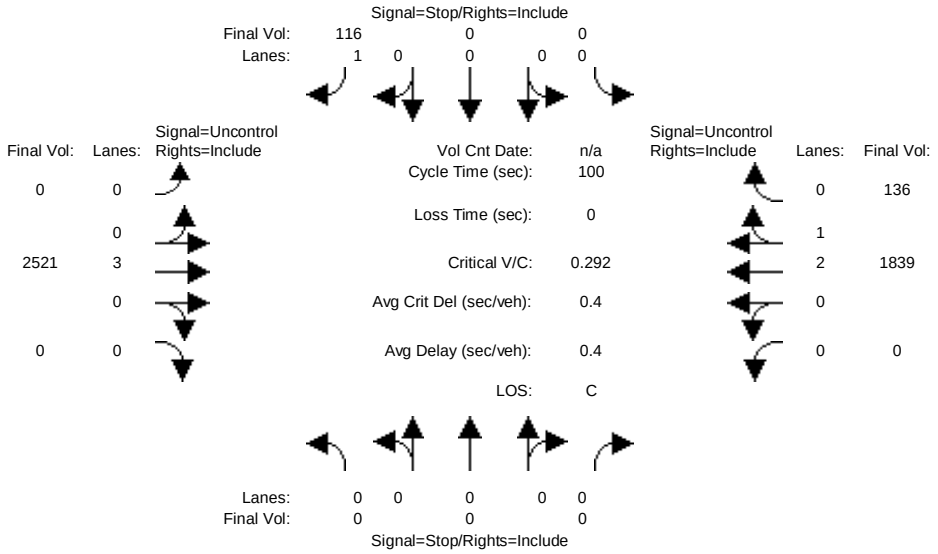
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #62: Stevens Creek Boulevard/Vallco Driveway 5



Street Name:	Vallco Driveway 5						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	0	0	0	0	0	116	0	2521	0	0	1839	136
Growth Adj:	1.00	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	0	0	116	0	2521	0	0	1839	136
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	0	0	116	0	2521	0	0	1839	136
User Adj:	1.00	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	0	0	116	0	2521	0	0	1839	136
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	116	0	2521	0	0	1839	136
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	681	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	398	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	398	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.29	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	29.9	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	17.7	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	C	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			17.7			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	116	0	2521	0	0	1839	136
ApproachDel:	xxxxxx			17.7			xxxxxx			xxxxxx		

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.6]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=116]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=4612]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #62 Stevens Creek Boulevard/Vallco Driveway 5

****

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 0 3 0 0			0 0 2 1 0		
Initial Vol:	0	0	0	0	0	116	0	2521	0	0	1839	136

Major Street Volume: 4496
Minor Approach Volume: 116
Minor Approach Volume Threshold: -233 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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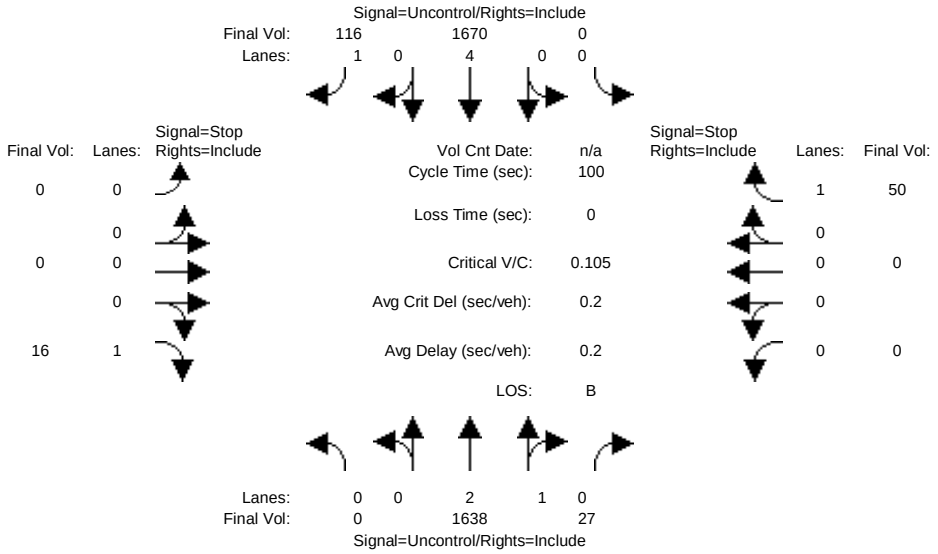
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #1163: Wolfe Road/Vallco Driveway 1



Street Name:	Wolfe Road						Vallco Driveway 1					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	1638	27	0	1670	116	0	0	16	0	0	50
Growth Adj:	1.00	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	1638	27	0	1670	116	0	0	16	0	0	50
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	1638	27	0	1670	116	0	0	16	0	0	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:	0	1638	27	0	1670	116	0	0	16	0	0	50
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1638	27	0	1670	116	0	0	16	0	0	50
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	418	xxxx	xxxx	560
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	590	xxxx	xxxx	477
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	590	xxxx	xxxx	477
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	0.10
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	2.1	xxxx	xxxx	8.7
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	11.3	xxxxx	xxxx	13.4
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			11.3			13.4		
ApproachLOS:	*			*			B			B		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #1163 Wolfe Road/Vallco Driveway 1

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 4	0	1	0 0 0	0	1	0 0 0	0	1
Initial Vol:	0 1638	27		0 1670	116		0	0	16	0	0	50
ApproachDel:	xxxxxx			xxxxxx			11.3			13.4		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=16]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3517]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=50]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3517]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1163 Wolfe Road/Vallco Driveway 1

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 4	0	1	0 0 0	0	1	0 0 0	0	1
Initial Vol:	0 1638	27		0 1670	116		0	0	16	0	0	50

Major Street Volume: 3451
Minor Approach Volume: 50
Minor Approach Volume Threshold: -142 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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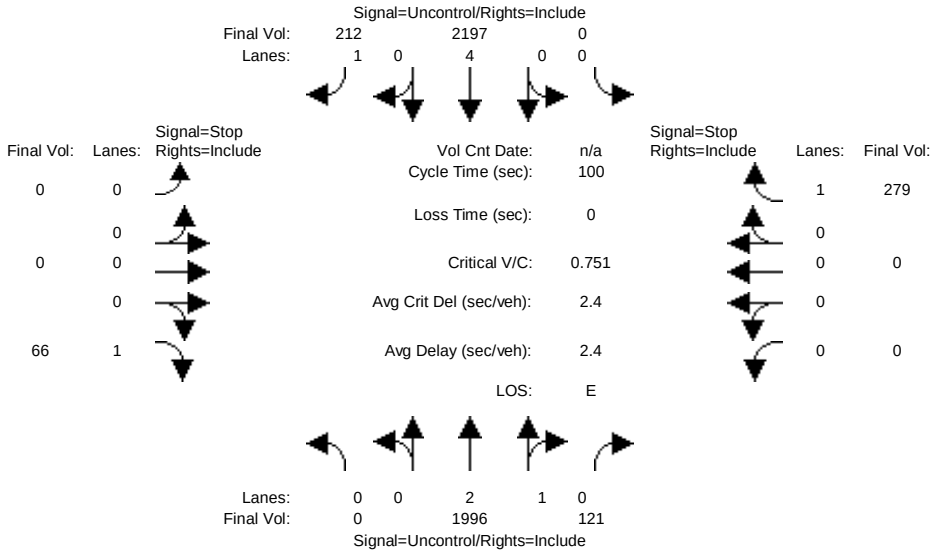
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #1163: Wolfe Road/Vallco Driveway 1



Street Name:	Wolfe Road						Vallco Driveway 1					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	0	1996	121	0	2197	212	0	0	66	0	0	279
Growth Adj:	1.00	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	1996	121	0	2197	212	0	0	66	0	0	279
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	1996	121	0	2197	212	0	0	66	0	0	279
User Adj:	1.00	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	1996	121	0	2197	212	0	0	66	0	0	279
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1996	121	0	2197	212	0	0	66	0	0	279
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	549	xxxx	xxxx	726
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	485	xxxx	xxxx	372
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	485	xxxx	xxxx	372
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.14	xxxx	xxxx	0.75
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	11.7	xxxx	xxxx	149.1
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	13.6	xxxxx	xxxx	38.7
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	E
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			13.6			38.7		
ApproachLOS:	*			*			B			E		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #1163 Wolfe Road/Vallco Driveway 1

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 4	0	1	0 0 0	0	1	0 0 0	0	1
Initial Vol:	0 1996	121		0 2197	212		0 0	66		0 0	279	
ApproachDel:	xxxxxx			xxxxxx			13.6			38.7		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=66]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=4871]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=3.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=279]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=4871]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1163 Wolfe Road/Vallco Driveway 1

****

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 4	0	1	0 0 0	0	1	0 0 0	0	1
Initial Vol:	0 1996	121		0 2197	212		0 0	66		0 0	279	

Major Street Volume: 4526
Minor Approach Volume: 279
Minor Approach Volume Threshold: -235 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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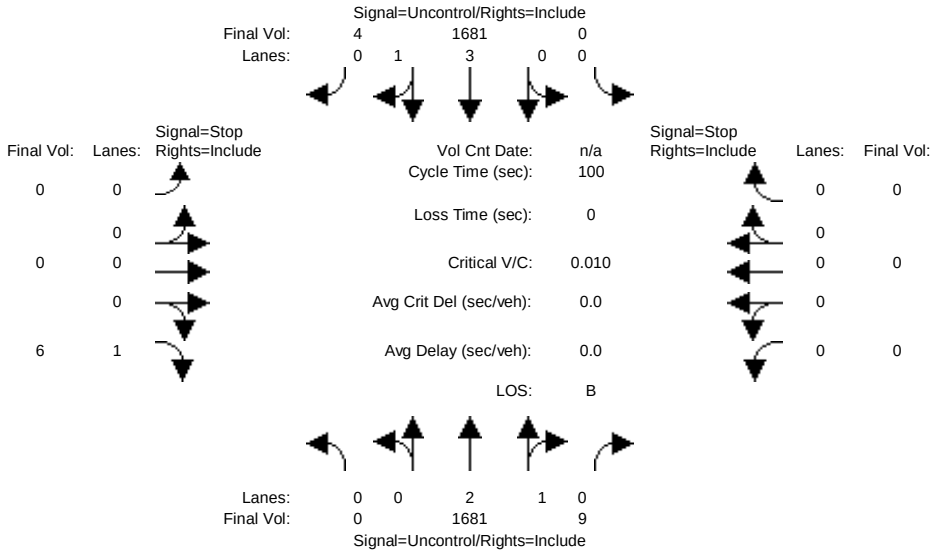
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #64: Wolfe Road/Vallco Driveway 2



Street Name:	Wolfe Road						Vallco Driveway 2					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	0	1681	9	0	1681	4	0	0	6	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1681	9	0	1681	4	0	0	6	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1681	9	0	1681	4	0	0	6	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	1681	9	0	1681	4	0	0	6	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1681	9	0	1681	4	0	0	6	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	422	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	586	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	586	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.8	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	11.2	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			11.2			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #64 Wolfe Road/Vallco Driveway 2

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	2	1 0	0	0	3	1 0	0	0	0	0 1	0	0	0	0 0
Initial Vol:	0	1681		9	0	1681		4	0	0		6	0	0		0
ApproachDel:	xxxxxx				xxxxxx				11.2				xxxxxx			

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=6]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=3381]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #64 Wolfe Road/Vallco Driveway 2

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	2	1 0	0	0	3	1 0	0	0	0	0 1	0	0	0	0 0
Initial Vol:	0	1681		9	0	1681		4	0	0		6	0	0		0

Major Street Volume: 3375
Minor Approach Volume: 6
Minor Approach Volume Threshold: -134 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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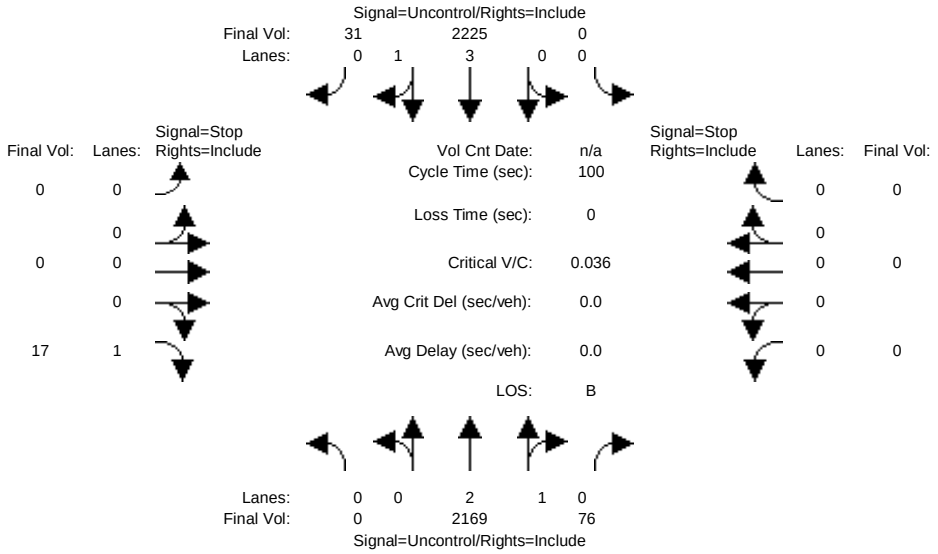
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #64: Wolfe Road/Vallco Driveway 2



Street Name:	Wolfe Road						Vallco Driveway 2					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	2169	76	0	2225	31	0	0	17	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2169	76	0	2225	31	0	0	17	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2169	76	0	2225	31	0	0	17	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	2169	76	0	2225	31	0	0	17	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	2169	76	0	2225	31	0	0	17	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	572	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	469	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	469	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.04	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	2.8	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	13.0	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			13.0			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #64 Wolfe Road/Vallco Driveway 2

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 3	1	0	0 0 0	0	1	0 0 0	0	0
Initial Vol:	0 2169	76		0 2225	31		0 0	17		0 0	0	
ApproachDel:	xxxxxx			xxxxxx			13.0			xxxxxx		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=17]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=4518]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #64 Wolfe Road/Vallco Driveway 2

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 2	1	0	0 0 3	1	0	0 0 0	0	1	0 0 0	0	0
Initial Vol:	0 2169	76		0 2225	31		0 0	17		0 0	0	

Major Street Volume: 4501
Minor Approach Volume: 17
Minor Approach Volume Threshold: -233 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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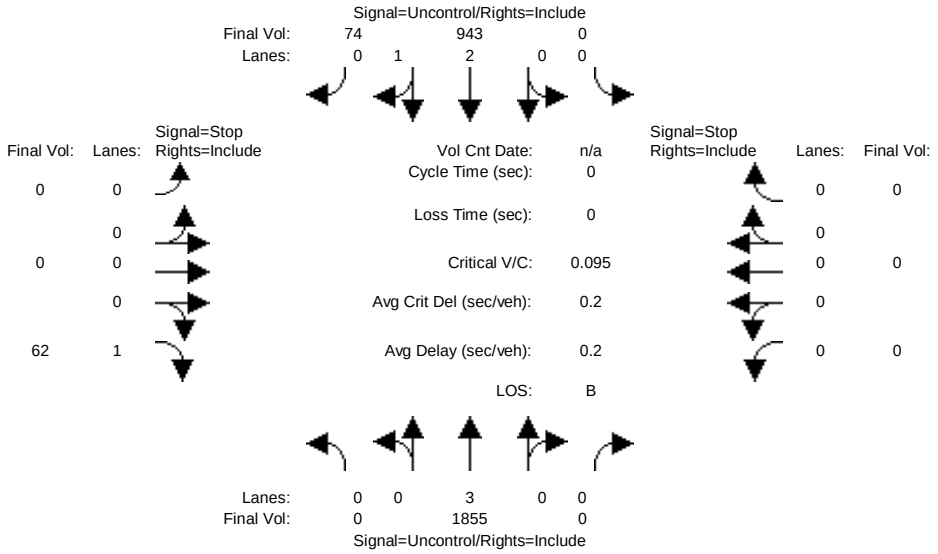
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #65: Wolfe Road/Vallco Driveway 3



Street Name:	Wolfe Road						Vallco Driveway 3					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	1855	0	0	943	74	0	0	62	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1855	0	0	943	74	0	0	62	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1855	0	0	943	74	0	0	62	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	1855	0	0	943	74	0	0	62	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1855	0	0	943	74	0	0	62	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	351	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	651	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	651	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.10	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	7.9	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	11.1	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			11.1			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 2	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0 1855	0		0 943	74		0	0	62	0	0	0
ApproachDel:	xxxxxx			xxxxxx			11.1			xxxxxx		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=62]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=2934]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 2	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0 1855	0		0 943	74		0	0	62	0	0	0

Major Street Volume: 2872
Minor Approach Volume: 62
Minor Approach Volume Threshold: -79 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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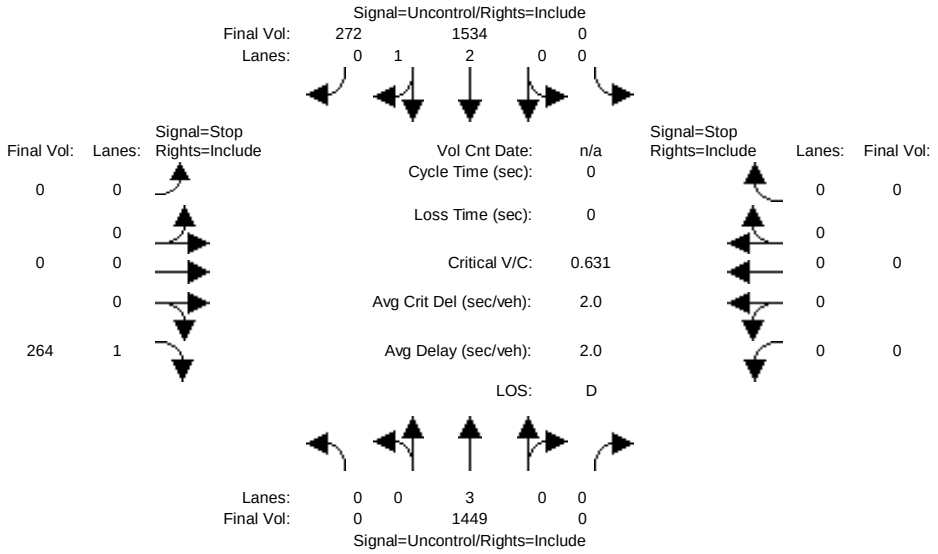
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #65: Wolfe Road/Vallco Driveway 3



Street Name:	Wolfe Road						Vallco Driveway 3					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	1449	0	0	1534	272	0	0	264	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1449	0	0	1534	272	0	0	264	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1449	0	0	1534	272	0	0	264	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	1449	0	0	1534	272	0	0	264	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1449	0	0	1534	272	0	0	264	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	647	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	418	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	418	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.63	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	105.3	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	27.2	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	D	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			27.2			xxxxxx		
ApproachLOS:	*			*			D			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 2	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0 1449	0		0 1534	272		0	0	264	0	0	0
ApproachDel:	xxxxxx			xxxxxx			27.2			xxxxxx		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=2.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=264]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=3519]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #65 Wolfe Road/Vallco Driveway 3

****

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 3	0 0		0 0 2	1 0		0 0 0	0 1		0 0 0	0 0	
Initial Vol:	0 1449	0		0 1534	272		0	0	264	0	0	0

Major Street Volume: 3255
Minor Approach Volume: 264
Minor Approach Volume Threshold: -122 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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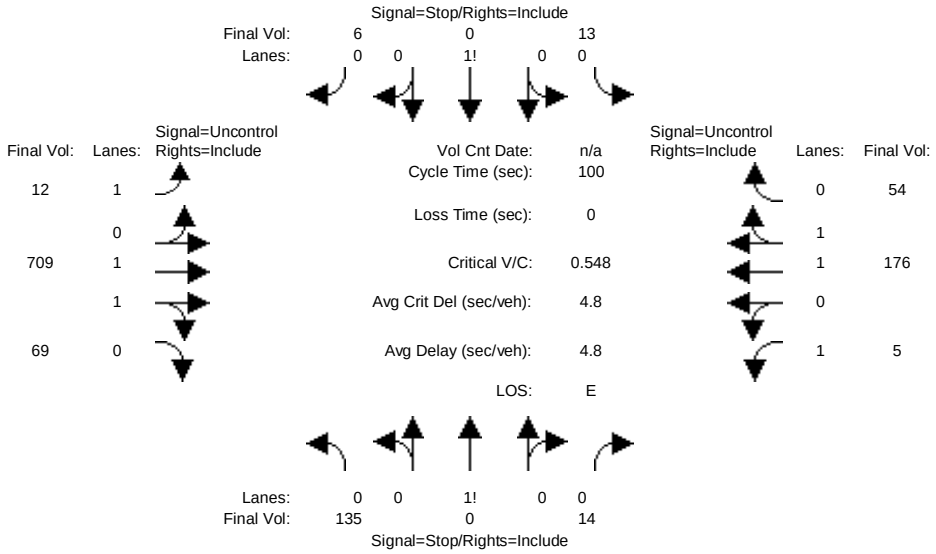
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #66: Vallco Parkway/Vallco Driveway 4



Street Name:	Vallco Driveway 4						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	135	0	14	13	0	6	12	709	69	5	176	54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	135	0	14	13	0	6	12	709	69	5	176	54
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:	135	0	14	13	0	6	12	709	69	5	176	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:	135	0	14	13	0	6	12	709	69	5	176	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	135	0	14	13	0	6	12	709	69	5	176	54
Critical Gap Module:												
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	866	1008	389	592	1015	115	230	xxxx	xxxxx	778	xxxx	xxxxx
Potent Cap.:	251	243	615	394	240	922	1350	xxxx	xxxxx	848	xxxx	xxxxx
Move Cap.:	246	239	615	381	237	922	1350	xxxx	xxxxx	848	xxxx	xxxxx
Volume/Cap:	0.55	0.00	0.02	0.03	0.00	0.01	0.01	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.7	xxxx	xxxxx	0.4	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx	9.3	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	261	xxxxx	xxxx	468	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	3.2	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	35.7	xxxxx	xxxxx	13.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	E	*	*	B	*	*	*	*	*	*	*
ApproachDel:		35.7			13.0		xxxxxx			xxxxxx		
ApproachLOS:		E			B		*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			1 0 1 1 0			1 0 1 1 0		
Initial Vol:	135	0	14	13	0	6	12	709	69	5	176	54
ApproachDel:	35.7			13.0			xxxxxx			xxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.5]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=149]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1193]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=19]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1193]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			1 0 1 1 0			1 0 1 1 0		
Initial Vol:	135	0	14	13	0	6	12	709	69	5	176	54

Major Street Volume: 1025
Minor Approach Volume: 149
Minor Approach Volume Threshold: 276

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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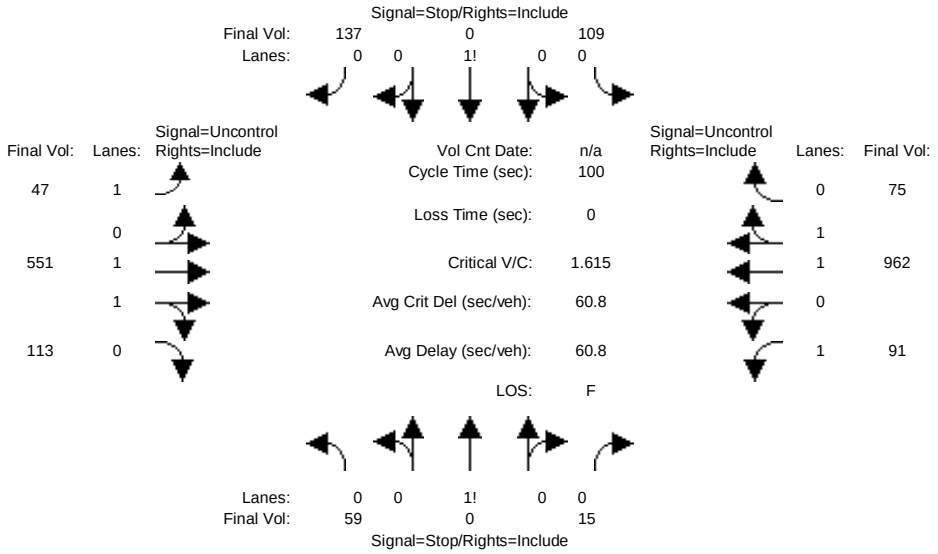
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #66: Vallco Parkway/Vallco Driveway 4



Street Name:	Vallco Driveway 4						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	59	0	15	109	0	137	47	551	113	91	962	75
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	59	0	15	109	0	137	47	551	113	91	962	75
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:	59	0	15	109	0	137	47	551	113	91	962	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	59	0	15	109	0	137	47	551	113	91	962	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	59	0	15	109	0	137	47	551	113	91	962	75
Critical Gap Module:												
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1365	1921	332	1551	1940	519	1037	xxxx	xxxxx	664	xxxx	xxxxx
Potent Cap.:	108	68	670	79	66	507	678	xxxx	xxxxx	935	xxxx	xxxxx
Move Cap.:	69	57	670	67	56	507	678	xxxx	xxxxx	935	xxxx	xxxxx
Volume/Cap:	0.85	0.00	0.02	1.62	0.00	0.27	0.07	xxxx	xxxx	0.10	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	5.6	xxxx	xxxxx	8.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.7	xxxx	xxxxx	9.3	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	85	xxxxx	xxxx	130	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	4.6	xxxxx	xxxxx	19.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	151	xxxxx	xxxxx	483	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	F	*	*	F	*	*	*	*	*	*	*
ApproachDel:	151.5			482.9			xxxxxx			xxxxxx		
ApproachLOS:	F			F			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 1! 0	0		0 0 1! 0	0		1 0 1	1	0	1 0 1	1	0
Initial Vol:	59	0	15	109	0	137	47	551	113	91	962	75
ApproachDel:	151.5			482.9			xxxxxx			xxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=3.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=74]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=2159]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=33.0]
SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=246]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=2159]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #66 Vallco Parkway/Vallco Driveway 4

****

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0 1! 0	0		0 0 1! 0	0		1 0 1	1	0	1 0 1	1	0
Initial Vol:	59	0	15	109	0	137	47	551	113	91	962	75

Major Street Volume: 1839
Minor Approach Volume: 246
Minor Approach Volume Threshold: 75 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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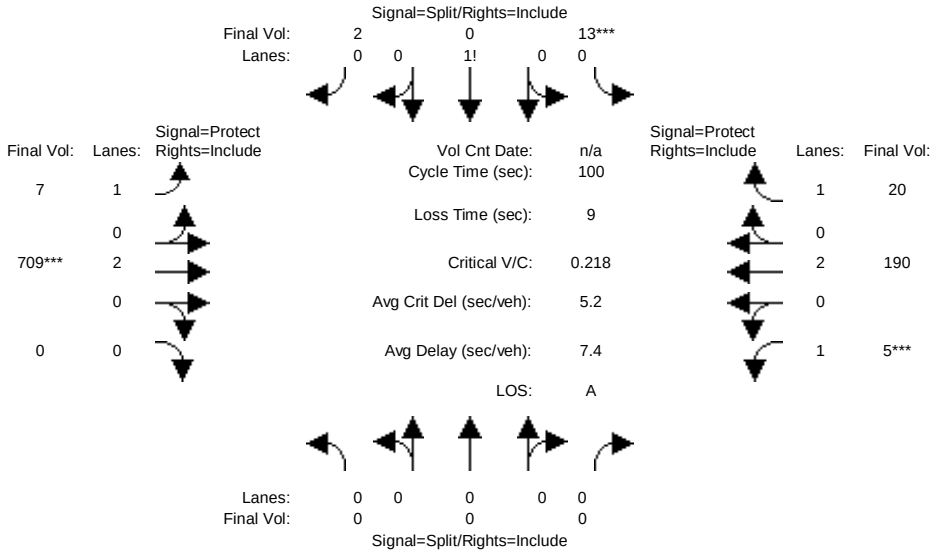
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved AM

Intersection #67: Vallco Parkway/Perimeter Road



Street Name:	Perimeter Road						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	10	0	10	7	10	0	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	13	0	2	7	709	0	5	190	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	13	0	2	7	709	0	5	190	20
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	13	0	2	7	709	0	5	190	20
User Adj:	1.00	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	13	0	2	7	709	0	5	190	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	13	0	2	7	709	0	5	190	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	13	0	2	7	709	0	5	190	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	0.87	0.00	0.13	1.00	2.00	0.00	1.00	2.00	1.00
Final Sat.:	0	0	0	1517	0	233	1750	3800	0	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.19	0.00	0.00	0.05	0.01
Crit Moves:				****				****		****		
Green Time:	0.0	0.0	0.0	10.0	0.0	10.0	33.4	74.0	0.0	7.0	47.6	47.6
Volume/Cap:	0.00	0.00	0.00	0.09	0.00	0.09	0.01	0.25	0.00	0.04	0.10	0.02
Uniform Del:	0.0	0.0	0.0	40.9	0.0	40.9	22.3	4.2	0.0	43.4	14.4	13.9
IncremntDel:	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0
InitQueuDel:	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	1.00	1.00	1.00
Delay/Veh:	0.0	0.0	0.0	41.1	0.0	41.1	22.3	4.2	0.0	43.5	14.5	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:	0.0	0.0	0.0	41.1	0.0	41.1	22.3	4.2	0.0	43.5	14.5	13.9
LOS by Move:	A	A	A	D	A	D	C+	A	A	D	B	B
HCM2kAvgQ:	0	0	0	13	0	13	4	86	0	5	39	9

Note: Queue reported is the distance per lane in feet.

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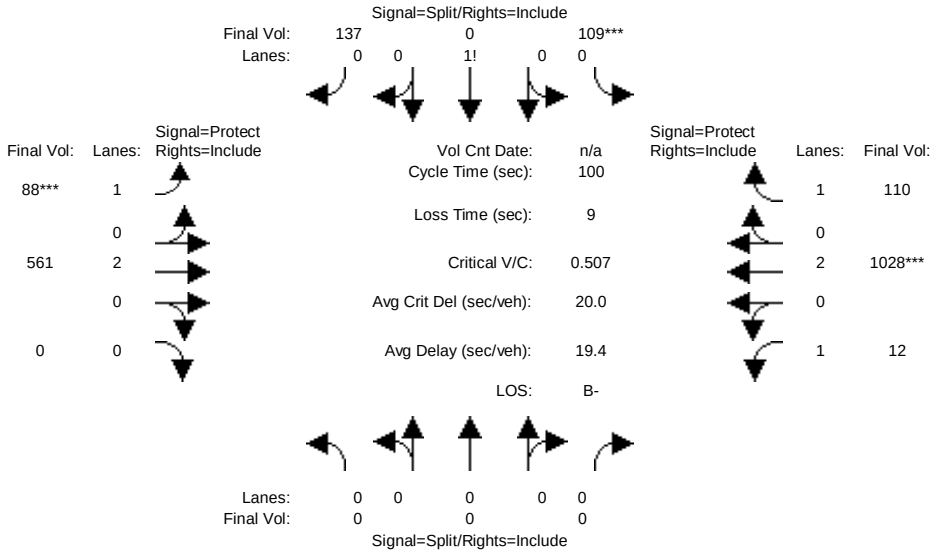
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V100 + Approved PM

Intersection #67: Vallco Parkway/Perimeter Road



Street Name:	Perimeter Road						Vallco Parkway					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	10	0	10	7	10	0	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	109	0	137	88	561	0	12	1028	110
Growth Adj:	1.00	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	109	0	137	88	561	0	12	1028	110
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	109	0	137	88	561	0	12	1028	110
User Adj:	1.00	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	109	0	137	88	561	0	12	1028	110
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	109	0	137	88	561	0	12	1028	110
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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	109	0	137	88	561	0	12	1028	110
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	0.44	0.00	0.56	1.00	2.00	0.00	1.00	2.00	1.00
Final Sat.:	0	0	0	775	0	975	1750	3800	0	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.14	0.00	0.14	0.05	0.15	0.00	0.01	0.27	0.06
Crit Moves:				****			****				****	
Green Time:	0.0	0.0	0.0	27.7	0.0	27.7	9.9	42.9	0.0	20.4	53.4	53.4
Volume/Cap:	0.00	0.00	0.00	0.51	0.00	0.51	0.51	0.34	0.00	0.03	0.51	0.12
Uniform Del:	0.0	0.0	0.0	30.4	0.0	30.4	42.7	19.1	0.0	31.9	14.9	11.6
IncremntDel:	0.0	0.0	0.0	0.9	0.0	0.9	2.4	0.1	0.0	0.0	0.2	0.1
InitQueuDel:	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	1.00	1.00	1.00
Delay/Veh:	0.0	0.0	0.0	31.3	0.0	31.3	45.2	19.2	0.0	32.0	15.1	11.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	31.3	0.0	31.3	45.2	19.2	0.0	32.0	15.1	11.7
LOS by Move:	A	A	A	C	A	C	D	B-	A	C	B	B+
HCM2kAvgQ:	0	0	0	181	0	181	70	139	0	8	254	45

Note: Queue reported is the distance per lane in feet.

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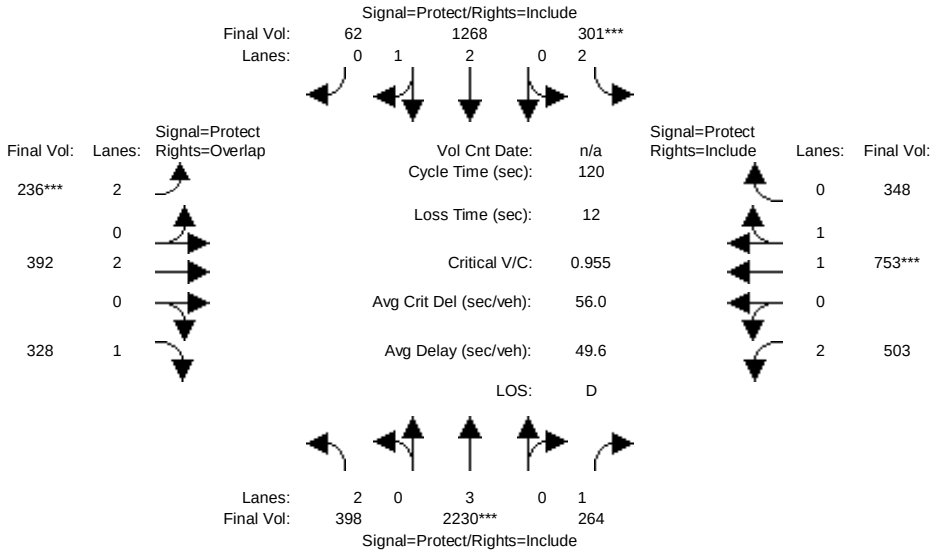
Traffix Output

Mitigations

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #8: De Anza Boulevard/Homestead Road



Street Name:	De Anza Boulevard						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	394	2226	264	261	1255	62	236	379	315	503	749	336
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	394	2226	264	261	1255	62	236	379	315	503	749	336
Added Vol:	4	4	0	40	13	0	0	13	13	0	4	12
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	398	2230	264	301	1268	62	236	392	328	503	753	348
User Adj:	1.00	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:	398	2230	264	301	1268	62	236	392	328	503	753	348
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	398	2230	264	301	1268	62	236	392	328	503	753	348
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	398	2230	264	301	1268	62	236	392	328	503	753	348
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.98	0.95	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	2.00	3.00	1.00	2.00	2.85	0.15	2.00	2.00	1.00	2.00	1.35	0.65
Final Sat.:	3150	5700	1750	3150	5339	261	3150	3800	1750	3150	2530	1169
Capacity Analysis Module:												
Vol/Sat:	0.13	0.39	0.15	0.10	0.24	0.24	0.07	0.10	0.19	0.16	0.30	0.30
Crit Moves:		****		****			****				****	
Green Time:	21.2	49.2	49.2	12.0	39.9	39.9	9.4	18.4	39.6	28.4	37.4	37.4
Volume/Cap:	0.71	0.95	0.37	0.95	0.71	0.71	0.95	0.67	0.57	0.67	0.95	0.95
Uniform Del:	46.5	34.3	24.6	53.7	35.0	35.0	55.1	48.0	33.1	41.6	40.5	40.5
IncremntDel:	7.6	10.7	1.5	40.4	2.4	2.4	46.7	6.1	4.0	4.8	17.7	17.7
InitQueuDel:	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:	54.1	45.0	26.1	94.1	37.4	37.4	101.8	54.1	37.1	46.4	58.1	58.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.1	45.0	26.1	94.1	37.4	37.4	101.8	54.1	37.1	46.4	58.1	58.1
LOS by Move:	D-	D	C	F	D+	D+	F	D-	D+	D	E+	E+
HCM2kAvgQ:	241	793	180	257	386	386	214	199	276	276	634	634

Note: Queue reported is the distance per lane in feet.

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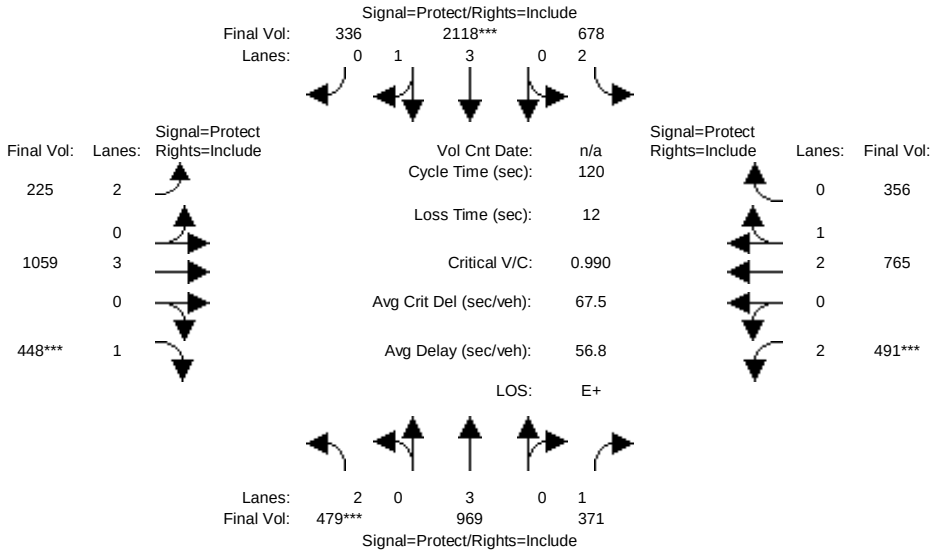
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #11: De Anza Boulevard/Stevens Creek Boulevard



Street Name:	De Anza Boulevard						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	479	969	358	571	2118	336	225	979	448	476	678	240
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	479	969	358	571	2118	336	225	979	448	476	678	240
Added Vol:	0	0	13	107	0	0	0	80	0	15	87	116
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	479	969	371	678	2118	336	225	1059	448	491	765	356
User Adj:	1.00	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:	479	969	371	678	2118	336	225	1059	448	491	765	356
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	479	969	371	678	2118	336	225	1059	448	491	765	356
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	479	969	371	678	2118	336	225	1059	448	491	765	356
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.99	0.95	0.83	1.00	0.92	0.83	1.00	0.95
Lanes:	2.00	3.00	1.00	2.00	3.43	0.57	2.00	3.00	1.00	2.00	2.01	0.99
Final Sat.:	3150	5700	1750	3150	6471	1027	3150	5700	1750	3150	3819	1777
Capacity Analysis Module:												
Vol/Sat:	0.15	0.17	0.21	0.22	0.33	0.33	0.07	0.19	0.26	0.16	0.20	0.20
Crit Moves:	****				****				****	****		
Green Time:	18.4	28.8	28.8	29.3	39.7	39.7	13.1	31.0	31.0	18.9	36.8	36.8
Volume/Cap:	0.99	0.71	0.88	0.88	0.99	0.99	0.65	0.72	0.99	0.99	0.65	0.65
Uniform Del:	50.7	41.7	44.0	43.7	40.0	40.0	51.3	40.5	44.3	50.5	36.1	36.1
IncremntDel:	38.6	3.1	22.6	13.9	15.9	15.9	9.3	3.0	40.0	38.1	2.0	2.0
InitQueuDel:	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:	89.3	44.8	66.5	57.7	55.9	55.9	60.6	43.6	84.3	88.5	38.0	38.0
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:	89.3	44.8	66.5	57.7	55.9	55.9	60.6	43.6	84.3	88.5	38.0	38.0
LOS by Move:	F	D	E	E+	E+	E+	E	D	F	F	D+	D+
HCM2kAvgQ:	386	300	436	441	727	727	148	324	592	394	319	319

Note: Queue reported is the distance per lane in feet.

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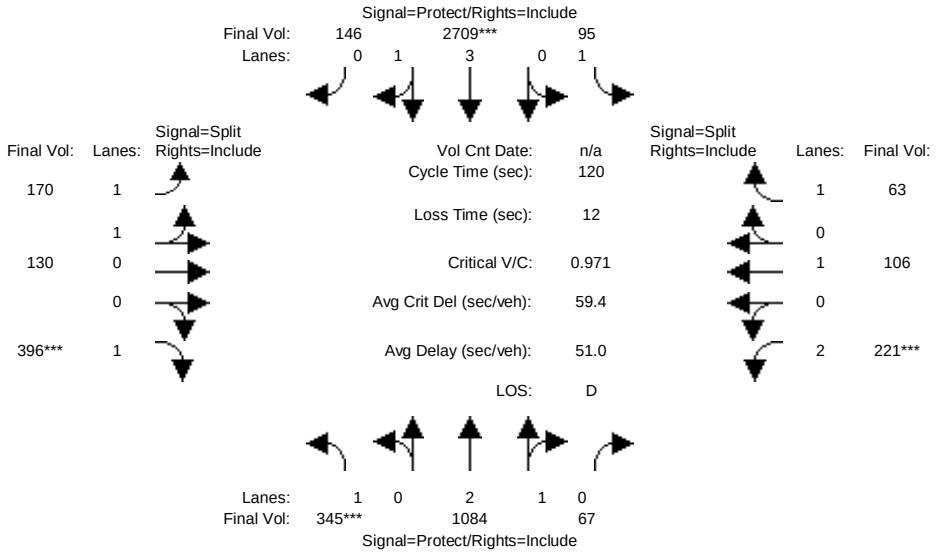
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #12: De Anza Boulevard/McClellan Road



Street Name:	De Anza Boulevard						McClellan Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	345	1071	67	95	2694	146	170	130	396	221	106	63
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	345	1071	67	95	2694	146	170	130	396	221	106	63
Added Vol:	0	13	0	0	15	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	345	1084	67	95	2709	146	170	130	396	221	106	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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:	345	1084	67	95	2709	146	170	130	396	221	106	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	345	1084	67	95	2709	146	170	130	396	221	106	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	345	1084	67	95	2709	146	170	130	396	221	106	63
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.99	0.95	0.92	0.95	0.92	0.83	1.00	0.92
Lanes:	1.00	2.82	0.18	1.00	3.79	0.21	1.15	0.85	1.00	2.00	1.00	1.00
Final Sat.:	1750	5274	326	1750	7116	384	2011	1538	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.20	0.21	0.21	0.05	0.38	0.38	0.08	0.08	0.23	0.07	0.06	0.04
Crit Moves:	****				****				****	****		
Green Time:	24.0	54.9	54.9	15.6	46.4	46.4	27.6	27.6	27.6	10.0	10.0	10.0
Volume/Cap:	0.98	0.45	0.45	0.42	0.98	0.98	0.37	0.37	0.98	0.84	0.67	0.43
Uniform Del:	47.8	22.3	22.3	48.1	36.4	36.4	38.9	38.9	46.0	54.2	53.4	52.3
IncremntDel:	44.4	0.6	0.6	5.6	13.5	13.5	1.3	1.3	41.2	26.6	20.3	9.1
InitQueuDel:	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:	92.2	22.8	22.8	53.6	49.9	49.9	40.2	40.2	87.2	80.8	73.7	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:	92.2	22.8	22.8	53.6	49.9	49.9	40.2	40.2	87.2	80.8	73.7	61.4
LOS by Move:	F	C+	C+	D-	D	D	D	D	F	F	E	E
HCM2kAvgQ:	473	243	243	96	818	818	127	127	530	180	126	72

Note: Queue reported is the distance per lane in feet.

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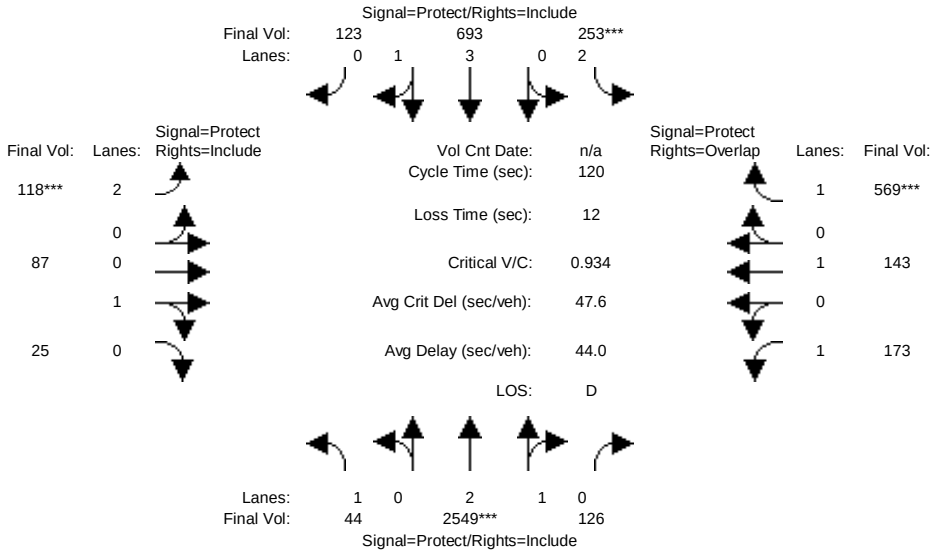
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #13: De Anza Boulevard/Bollinger Road



Street Name:	De Anza Boulevard						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	44	2296	126	253	619	121	111	80	25	173	141	569
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	44	2296	126	253	619	121	111	80	25	173	141	569
Added Vol:	0	253	0	0	74	2	7	7	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	2549	126	253	693	123	118	87	25	173	143	569
User Adj:	1.00	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:	44	2549	126	253	693	123	118	87	25	173	143	569
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	2549	126	253	693	123	118	87	25	173	143	569
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	44	2549	126	253	693	123	118	87	25	173	143	569
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.83	0.99	0.95	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	2.85	0.15	2.00	3.37	0.63	2.00	0.78	0.22	1.00	1.00	1.00
Final Sat.:	1750	5336	264	3150	6368	1130	3150	1398	402	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.48	0.48	0.08	0.11	0.11	0.04	0.06	0.06	0.10	0.08	0.33
Crit Moves:		****		****			****					****
Green Time:	24.5	60.1	60.1	10.1	45.7	45.7	7.0	17.3	17.3	20.5	30.8	40.9
Volume/Cap:	0.12	0.95	0.95	0.95	0.29	0.29	0.64	0.43	0.43	0.58	0.29	0.95
Uniform Del:	39.0	28.6	28.6	54.7	25.8	25.8	55.3	46.9	46.9	45.8	35.9	38.6
IncremntDel:	0.7	9.2	9.2	44.6	0.3	0.3	16.0	5.2	5.2	7.9	1.5	27.1
InitQueuDel:	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:	39.7	37.8	37.8	99.3	26.1	26.1	71.3	52.0	52.0	53.7	37.4	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:	39.7	37.8	37.8	99.3	26.1	26.1	71.3	52.0	52.0	53.7	37.4	65.7
LOS by Move:	D	D+	D+	F	C	C	E	D-	D-	D-	D+	E
HCM2kAvgQ:	36	929	929	225	130	130	93	108	108	176	106	681

Note: Queue reported is the distance per lane in feet.

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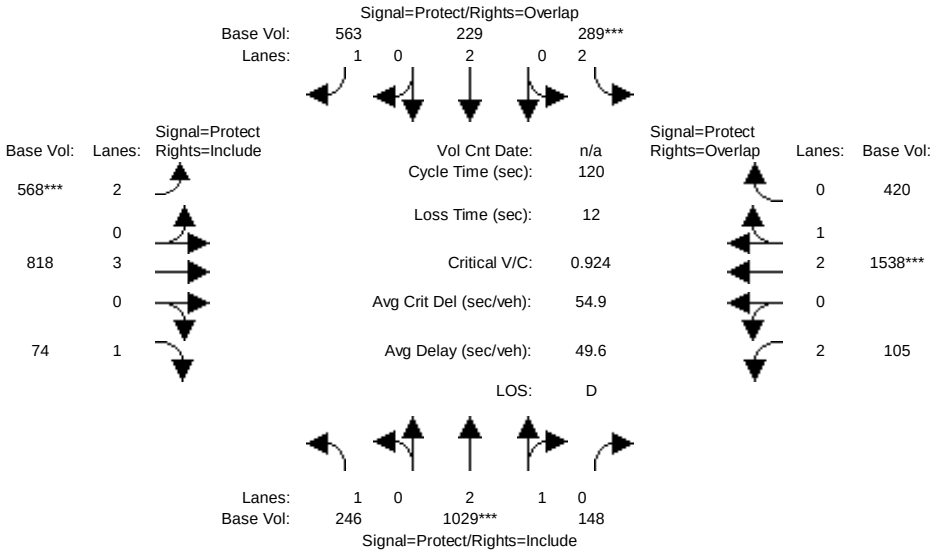
Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Ex V82 + App + Proj AM

Intersection #1134: Wolfe Road/Stevens Creek Boulevard



Street Name:	Wolfe Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	246	1029	148	289	229	563	568	818	74	105	1538	420
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	246	1029	148	289	229	563	568	818	74	105	1538	420
User Adj:	1.00	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:	246	1029	148	289	229	563	568	818	74	105	1538	420
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	246	1029	148	289	229	563	568	818	74	105	1538	420
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	246	1029	148	289	229	563	568	818	74	105	1538	420
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	1.00	2.61	0.39	2.00	2.00	1.00	2.00	3.00	1.00	2.00	2.33	0.67
Final Sat.:	1750	4895	704	3150	3800	1750	3150	5700	1750	3150	4397	1201
Capacity Analysis Module:												
Vol/Sat:	0.14	0.21	0.21	0.09	0.06	0.32	0.18	0.14	0.04	0.03	0.35	0.35
Crit Moves:		****		****			****				****	
Green Time:	19.5	27.3	27.3	11.9	19.7	43.1	23.4	48.9	48.9	19.9	45.4	57.3
Volume/Cap:	0.86	0.92	0.92	0.92	0.37	0.90	0.92	0.35	0.10	0.20	0.92	0.73
Uniform Del:	48.9	45.3	45.3	53.6	44.6	36.4	47.4	24.6	22.0	43.2	35.7	25.2
IncremntDel:	27.5	12.6	12.6	34.8	1.7	17.9	21.8	0.4	0.3	0.9	8.4	1.8
InitQueuDel:	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:	76.5	58.0	58.0	88.4	46.3	54.3	69.3	25.0	22.3	44.1	44.0	27.0
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:	76.5	58.0	58.0	88.4	46.3	54.3	69.3	25.0	22.3	44.1	44.0	27.0
LOS by Move:	E-	E+	E+	F	D	D-	E	C	C+	D	D	C
HCM2kAvgQ:	310	458	458	241	99	616	406	171	44	52	688	508

Note: Queue reported is the distance per lane in feet.

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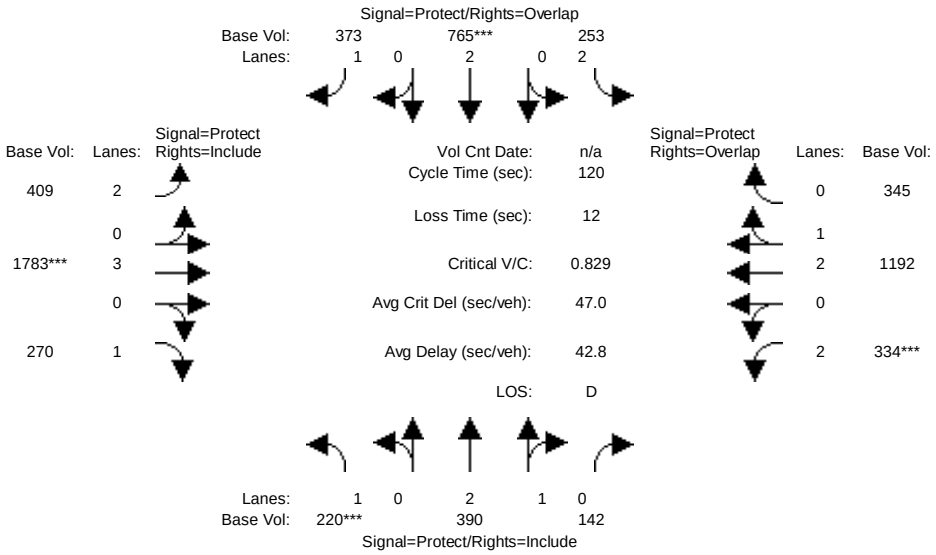
Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Ex V82 + App + Proj PM

Intersection #1134: Wolfe Road/Stevens Creek Boulevard



Street Name:	Wolfe Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	220	390	142	253	765	373	409	1783	270	334	1192	345
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	220	390	142	253	765	373	409	1783	270	334	1192	345
User Adj:	1.00	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:	220	390	142	253	765	373	409	1783	270	334	1192	345
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	220	390	142	253	765	373	409	1783	270	334	1192	345
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	220	390	142	253	765	373	409	1783	270	334	1192	345
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.95	0.83	1.00	0.92	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	1.00	2.17	0.83	2.00	2.00	1.00	2.00	3.00	1.00	2.00	2.30	0.70
Final Sat.:	1750	4103	1494	3150	3800	1750	3150	5700	1750	3150	4341	1257
Capacity Analysis Module:												
Vol/Sat:	0.13	0.10	0.10	0.08	0.20	0.21	0.13	0.31	0.15	0.11	0.27	0.27
Crit Moves:	****				****			****			****	
Green Time:	18.2	25.7	25.7	21.7	29.2	48.6	19.5	45.3	45.3	15.4	41.2	62.9
Volume/Cap:	0.83	0.44	0.44	0.44	0.83	0.53	0.80	0.83	0.41	0.83	0.80	0.52
Uniform Del:	49.4	41.0	41.0	43.8	43.1	27.0	48.4	33.8	27.5	51.0	35.7	18.8
IncremntDel:	24.8	1.2	1.2	2.5	8.5	2.8	12.4	3.9	1.9	17.6	3.6	0.7
InitQueuDel:	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	42.2	42.2	46.3	51.6	29.8	60.8	37.7	29.4	68.6	39.3	19.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	74.2	42.2	42.2	46.3	51.6	29.8	60.8	37.7	29.4	68.6	39.3	19.4
LOS by Move:	E	D	D	D	D-	C	E	D+	C	E	D	B-
HCM2kAvgQ:	273	150	150	133	391	282	271	545	197	240	477	312

Note: Queue reported is the distance per lane in feet.

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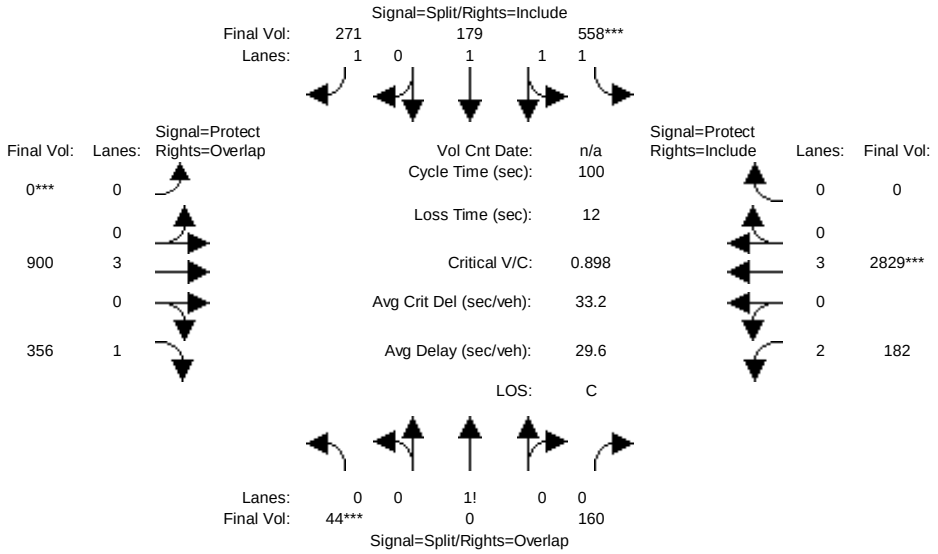
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + App + Proj AM

Intersection #45: Stevens Creek Boulevard/Calvert Drive/I-280 Ramps



Street Name:	Stevens Creek Boulevard						Calvert Drive/I-280 Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	0	10	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	44	0	160	558	179	271	0	861	266	182	2443	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:	44	0	160	558	179	271	0	861	266	182	2443	0
Added Vol:	0	0	0	0	0	0	0	39	90	0	386	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	0	160	558	179	271	0	900	356	182	2829	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:	44	0	160	558	179	271	0	900	356	182	2829	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	0	160	558	179	271	0	900	356	182	2829	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:	44	0	160	558	179	271	0	900	356	182	2829	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.22	0.00	0.78	2.00	1.00	1.00	0.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:	377	0	1373	3150	1900	1750	0	5700	1750	3150	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.12	0.00	0.12	0.18	0.09	0.15	0.00	0.16	0.20	0.06	0.50	0.00
Crit Moves:	****			****			****				****	
Green Time:	13.0	0.0	30.0	19.7	19.7	19.7	0.0	38.3	51.3	17.0	55.3	0.0
Volume/Cap:	0.90	0.00	0.39	0.90	0.48	0.78	0.00	0.41	0.40	0.34	0.90	0.00
Uniform Del:	42.9	0.0	27.8	39.2	35.6	38.1	0.0	22.6	14.9	36.6	19.8	0.0
IncremntDel:	38.1	0.0	2.2	14.6	1.1	16.3	0.0	0.6	1.3	1.7	4.6	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	80.9	0.0	29.9	53.8	36.6	54.4	0.0	23.2	16.2	38.3	24.4	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:	80.9	0.0	29.9	53.8	36.6	54.4	0.0	23.2	16.2	38.3	24.4	0.0
LOS by Move:	F	A	C	D-	D+	D-	A	C	B	D+	C	A
HCM2kAvgQ:	249	0	138	341	132	265	0	170	180	80	733	0

Note: Queue reported is the distance per lane in feet.

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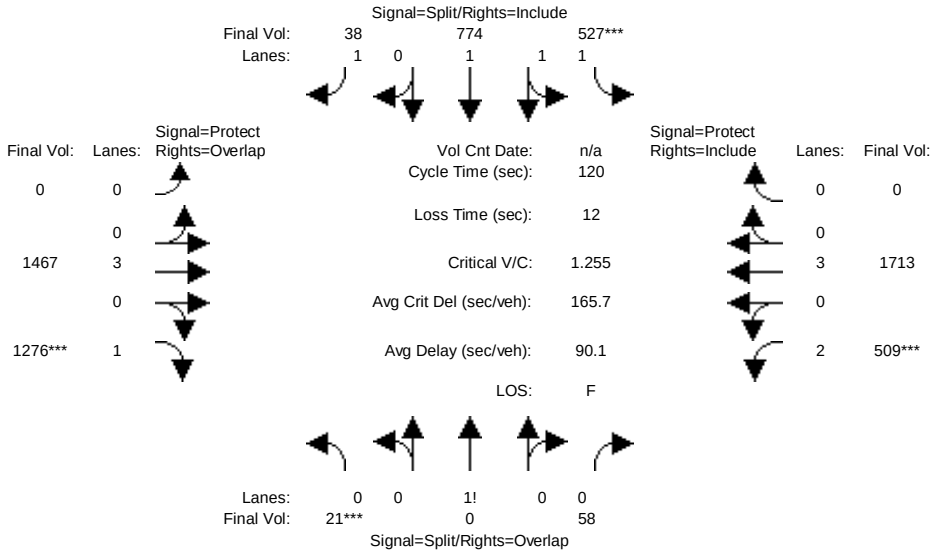
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + Approved PM

Intersection #45: Stevens Creek Boulevard/Calvert Drive/I-280 Ramps



Street Name:	Stevens Creek Boulevard						Calvert Drive/I-280 Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	0	10	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	21	0	58	527	774	38	0	1322	993	509	1472	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:	21	0	58	527	774	38	0	1322	993	509	1472	0
Added Vol:	0	0	0	0	0	0	0	145	283	0	241	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	0	58	527	774	38	0	1467	1276	509	1713	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:	21	0	58	527	774	38	0	1467	1276	509	1713	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	0	58	527	774	38	0	1467	1276	509	1713	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:	21	0	58	527	774	38	0	1467	1276	509	1713	0
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	0.98	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.27	0.00	0.73	1.25	1.75	1.00	0.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:	465	0	1285	2206	3240	1750	0	5700	1750	3150	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.00	0.05	0.24	0.24	0.02	0.00	0.26	0.73	0.16	0.30	0.00
Crit Moves:	****			****					****	****		
Green Time:	10.0	0.0	25.1	22.4	22.4	22.4	0.0	60.5	70.5	15.1	75.6	0.0
Volume/Cap:	0.54	0.00	0.22	1.28	1.28	0.12	0.00	0.51	1.24	1.28	0.48	0.00
Uniform Del:	52.8	0.0	39.3	48.8	48.8	40.6	0.0	19.9	24.8	52.4	11.7	0.0
IncremntDel:	13.7	0.0	1.3	134.1	134	0.7	0.0	0.7	116.9	144.6	0.5	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	66.5	0.0	40.6	183.0	183	41.3	0.0	20.5	141.7	197.0	12.2	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:	66.5	0.0	40.6	183.0	183	41.3	0.0	20.5	141.7	197.0	12.2	0.0
LOS by Move:	E	A	D	F	F	D	A	C+	F	F	B	A
HCM2kAvgQ:	95	0	66	778	778	32	0	298	2109	548	274	0

Note: Queue reported is the distance per lane in feet.

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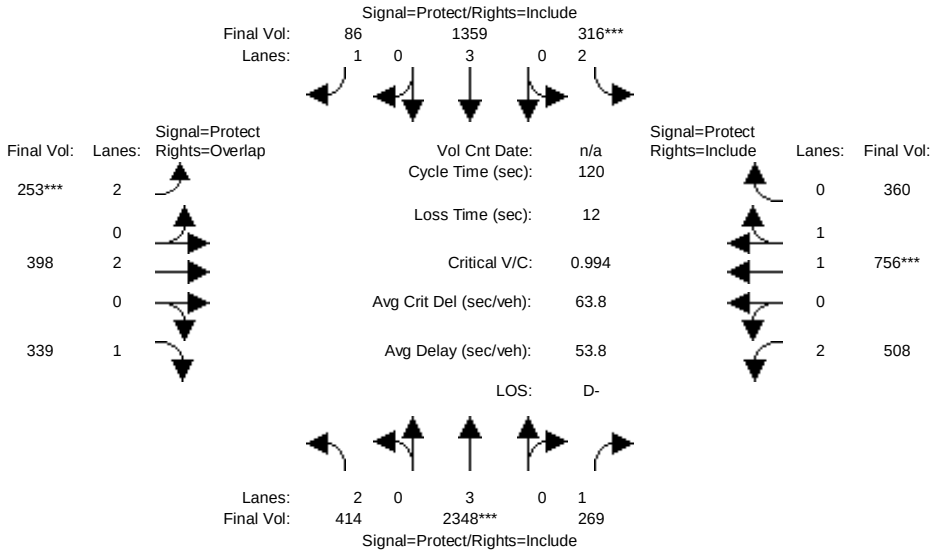
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #8: De Anza Boulevard/Homestead Road



Street Name:	De Anza Boulevard						Homestead Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	410	2344	269	276	1346	86	253	385	326	508	752	348
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	410	2344	269	276	1346	86	253	385	326	508	752	348
Added Vol:	4	4	0	40	13	0	0	13	13	0	4	12
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	414	2348	269	316	1359	86	253	398	339	508	756	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:	414	2348	269	316	1359	86	253	398	339	508	756	360
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	414	2348	269	316	1359	86	253	398	339	508	756	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:	414	2348	269	316	1359	86	253	398	339	508	756	360
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	1.34	0.66
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	2506	1193
Capacity Analysis Module:												
Vol/Sat:	0.13	0.41	0.15	0.10	0.24	0.05	0.08	0.10	0.19	0.16	0.30	0.30
Crit Moves:		****			****			****			****	
Green Time:	22.0	49.7	49.7	12.1	39.9	39.9	9.7	18.2	40.1	28.0	36.4	36.4
Volume/Cap:	0.72	0.99	0.37	0.99	0.72	0.15	0.99	0.69	0.58	0.69	0.99	0.99
Uniform Del:	46.1	35.0	24.3	53.9	35.1	28.1	55.1	48.3	33.0	42.1	41.7	41.7
IncremntDel:	7.5	17.1	1.5	48.9	2.4	0.5	54.8	6.7	4.1	5.3	25.4	25.4
InitQueuDel:	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:	53.6	52.1	25.8	102.8	37.5	28.7	109.9	55.0	37.1	47.4	67.0	67.0
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:	53.6	52.1	25.8	102.8	37.5	28.7	109.9	55.0	37.1	47.4	67.0	67.0
LOS by Move:	D-	D-	C	F	D+	C	F	D-	D+	D	E	E
HCM2kAvgQ:	250	889	183	279	388	59	235	205	286	284	682	682

Note: Queue reported is the distance per lane in feet.

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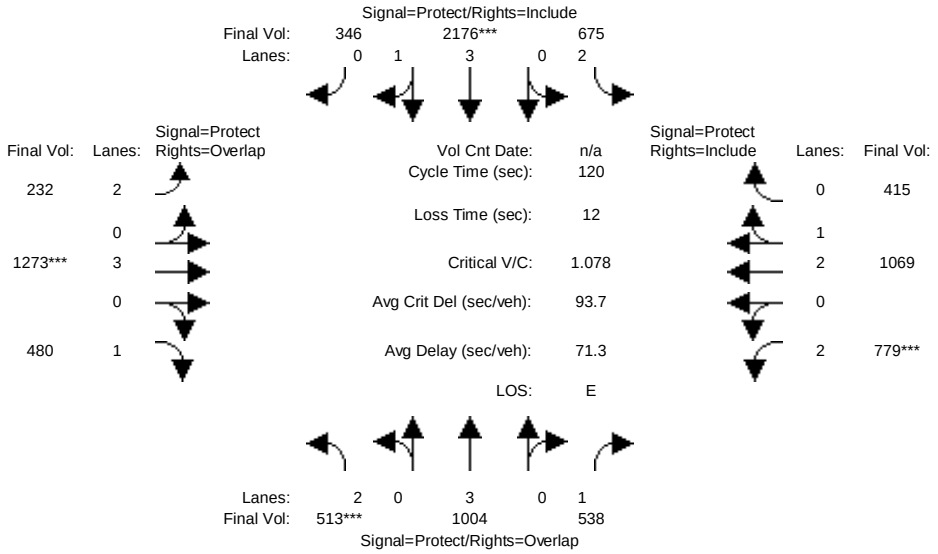
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #11: De Anza Boulevard/Stevens Creek Boulevard



Street Name:	De Anza Boulevard						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	513	1004	395	586	2176	346	232	1155	480	496	837	259
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	513	1004	395	586	2176	346	232	1155	480	496	837	259
Added Vol:	0	0	143	89	0	0	0	118	0	283	232	156
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	513	1004	538	675	2176	346	232	1273	480	779	1069	415
User Adj:	1.00	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:	513	1004	538	675	2176	346	232	1273	480	779	1069	415
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	513	1004	538	675	2176	346	232	1273	480	779	1069	415
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	513	1004	538	675	2176	346	232	1273	480	779	1069	415
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.99	0.95	0.83	1.00	0.92	0.83	1.00	0.95
Lanes:	2.00	3.00	1.00	2.00	3.43	0.57	2.00	3.00	1.00	2.00	2.13	0.87
Final Sat.:	3150	5700	1750	3150	6469	1029	3150	5700	1750	3150	4032	1565
Capacity Analysis Module:												
Vol/Sat:	0.16	0.18	0.31	0.21	0.34	0.34	0.07	0.22	0.27	0.25	0.27	0.27
Crit Moves:	****				****			****			****	
Green Time:	18.1	25.1	52.6	30.5	37.5	37.5	11.4	24.9	43.0	27.5	41.0	41.0
Volume/Cap:	1.08	0.84	0.70	0.84	1.08	1.08	0.78	1.08	0.77	1.08	0.78	0.78
Uniform Del:	50.9	45.6	27.3	42.5	41.3	41.3	53.1	47.6	34.0	46.2	35.4	35.4
IncremntDel:	63.7	7.3	5.3	10.5	43.5	43.5	17.7	49.8	8.7	56.4	3.2	3.2
InitQueuDel:	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:	114.6	52.9	32.6	53.0	84.8	84.8	70.8	97.3	42.7	102.6	38.5	38.5
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:	114.6	52.9	32.6	53.0	84.8	84.8	70.8	97.3	42.7	102.6	38.5	38.5
LOS by Move:	F	D-	C-	D-	F	F	E	F	D	F	D+	D+
HCM2kAvgQ:	452	359	449	418	839	839	173	590	455	643	450	450

Note: Queue reported is the distance per lane in feet.

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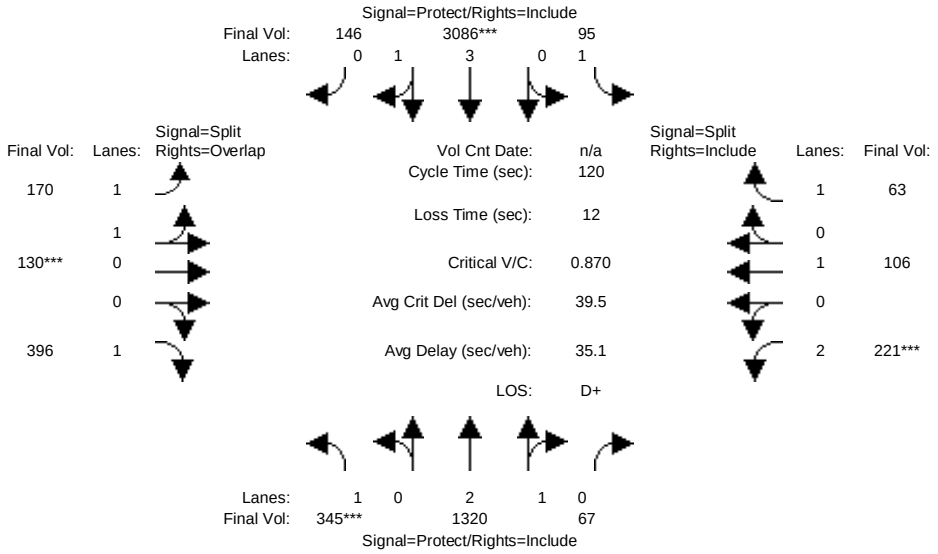
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #12: De Anza Boulevard/McClellan Road



Street Name:	De Anza Boulevard						McClellan Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	345	1177	67	95	2803	146	170	130	396	221	106	63
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	345	1177	67	95	2803	146	170	130	396	221	106	63
Added Vol:	0	143	0	0	283	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	345	1320	67	95	3086	146	170	130	396	221	106	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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:	345	1320	67	95	3086	146	170	130	396	221	106	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	345	1320	67	95	3086	146	170	130	396	221	106	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	345	1320	67	95	3086	146	170	130	396	221	106	63
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.99	0.95	0.92	0.95	0.92	0.83	1.00	0.92
Lanes:	1.00	2.85	0.15	1.00	3.81	0.19	1.15	0.85	1.00	2.00	1.00	1.00
Final Sat.:	1750	5329	270	1750	7161	339	2011	1538	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.20	0.25	0.25	0.05	0.43	0.43	0.08	0.08	0.23	0.07	0.06	0.04
Crit Moves:	****				****			****			****	
Green Time:	27.1	69.9	69.9	16.5	59.3	59.3	11.6	11.6	38.7	10.0	10.0	10.0
Volume/Cap:	0.87	0.43	0.43	0.40	0.87	0.87	0.87	0.87	0.70	0.84	0.67	0.43
Uniform Del:	44.8	13.9	13.9	47.2	27.0	27.0	53.5	53.5	35.6	54.2	53.4	52.3
IncremntDel:	22.4	0.4	0.4	4.8	3.2	3.2	25.0	25.0	7.1	26.6	20.3	9.1
InitQueuDel:	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:	67.2	14.3	14.3	52.1	30.2	30.2	78.4	78.4	42.7	80.8	73.7	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:	67.2	14.3	14.3	52.1	30.2	30.2	78.4	78.4	42.7	80.8	73.7	61.4
LOS by Move:	E	B	B	D-	C	C	E-	E-	D	F	E	E
HCM2kAvgQ:	407	236	236	94	735	735	213	213	367	180	126	72

Note: Queue reported is the distance per lane in feet.

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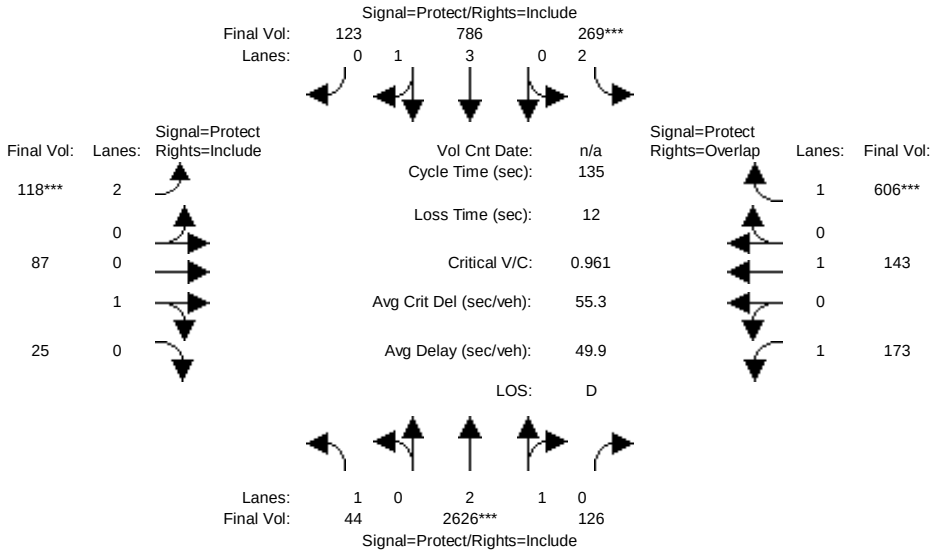
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #13: De Anza Boulevard/Bollinger Road



Street Name:	De Anza Boulevard						Bollinger Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	44	2373	126	269	712	121	111	80	25	173	141	606
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	44	2373	126	269	712	121	111	80	25	173	141	606
Added Vol:	0	253	0	0	74	2	7	7	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	2626	126	269	786	123	118	87	25	173	143	606
User Adj:	1.00	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:	44	2626	126	269	786	123	118	87	25	173	143	606
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	2626	126	269	786	123	118	87	25	173	143	606
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	44	2626	126	269	786	123	118	87	25	173	143	606
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.83	0.99	0.95	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	2.86	0.14	2.00	3.44	0.56	2.00	0.78	0.22	1.00	1.00	1.00
Final Sat.:	1750	5343	256	3150	6483	1015	3150	1398	402	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.49	0.49	0.09	0.12	0.12	0.04	0.06	0.06	0.10	0.08	0.35
Crit Moves:		****		****			****					****
Green Time:	23.9	68.1	68.1	11.8	55.9	55.9	7.0	18.5	18.5	24.7	36.1	47.9
Volume/Cap:	0.14	0.97	0.97	0.97	0.29	0.29	0.72	0.45	0.45	0.54	0.28	0.97
Uniform Del:	46.9	32.6	32.6	61.4	26.3	26.3	63.0	53.6	53.6	50.0	39.2	42.9
IncremntDel:	1.0	12.0	12.0	48.2	0.2	0.2	24.1	6.0	6.0	6.4	1.4	30.5
InitQueuDel:	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:	47.8	44.7	44.7	109.6	26.6	26.6	87.1	59.6	59.6	56.5	40.5	73.4
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:	47.8	44.7	44.7	109.6	26.6	26.6	87.1	59.6	59.6	56.5	40.5	73.4
LOS by Move:	D	D	D	F	C	C	F	E+	E+	E+	D	E
HCM2kAvgQ:	42	1089	1089	258	154	154	109	122	122	188	116	810

Note: Queue reported is the distance per lane in feet.

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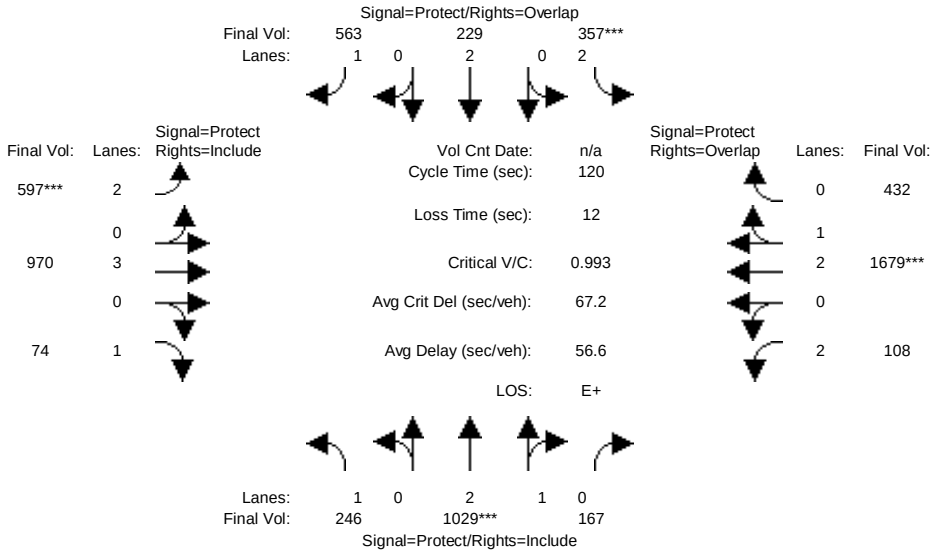
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #1134: Wolfe Road/Stevens Creek Boulevard



Street Name:	Wolfe Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	246	1029	167	357	229	563	597	970	74	108	1679	432
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	246	1029	167	357	229	563	597	970	74	108	1679	432
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:	246	1029	167	357	229	563	597	970	74	108	1679	432
User Adj:	1.00	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:	246	1029	167	357	229	563	597	970	74	108	1679	432
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	246	1029	167	357	229	563	597	970	74	108	1679	432
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	246	1029	167	357	229	563	597	970	74	108	1679	432
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	1.00	2.57	0.43	2.00	2.00	1.00	2.00	3.00	1.00	2.00	2.36	0.64
Final Sat.:	1750	4817	782	3150	3800	1750	3150	5700	1750	3150	4453	1146
Capacity Analysis Module:												
Vol/Sat:	0.14	0.21	0.21	0.11	0.06	0.32	0.19	0.17	0.04	0.03	0.38	0.38
Crit Moves:		****		****			****				****	
Green Time:	20.4	25.8	25.8	13.7	19.2	42.1	22.9	51.0	51.0	17.5	45.6	59.3
Volume/Cap:	0.83	0.99	0.99	0.99	0.38	0.92	0.99	0.40	0.10	0.24	0.99	0.76
Uniform Del:	48.1	47.0	47.0	53.1	45.1	37.3	48.5	23.9	20.7	45.3	37.0	24.7
IncremntDel:	22.6	24.3	24.3	45.7	1.8	20.9	35.0	0.5	0.3	1.2	17.9	2.1
InitQueuDel:	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:	70.7	71.3	71.3	98.8	46.9	58.3	83.5	24.4	21.0	46.5	55.0	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:	70.7	71.3	71.3	98.8	46.9	58.3	83.5	24.4	21.0	46.5	55.0	26.7
LOS by Move:	E	E	E	F	D	E+	F	C	C+	D	D-	C
HCM2kAvgQ:	297	511	511	307	100	637	463	203	43	56	823	558

Note: Queue reported is the distance per lane in feet.

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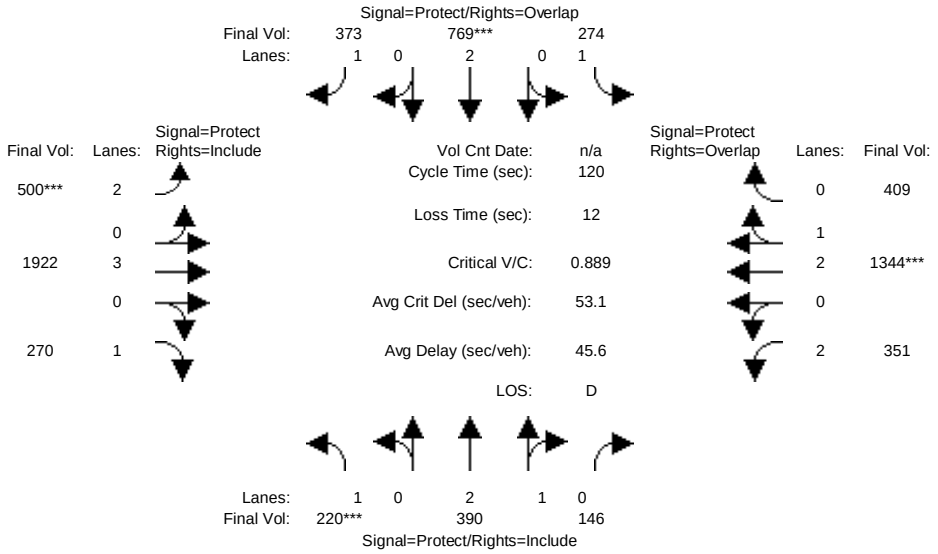
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #1134: Wolfe Road/Stevens Creek Boulevard



Street Name:	Wolfe Road						Stevens Creek Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	220	390	146	274	769	373	500	1922	270	351	1344	409
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	220	390	146	274	769	373	500	1922	270	351	1344	409
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:	220	390	146	274	769	373	500	1922	270	351	1344	409
User Adj:	1.00	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:	220	390	146	274	769	373	500	1922	270	351	1344	409
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	220	390	146	274	769	373	500	1922	270	351	1344	409
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	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:	220	390	146	274	769	373	500	1922	270	351	1344	409
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.95	0.92	1.00	0.92	0.83	1.00	0.92	0.83	0.99	0.95
Lanes:	1.00	2.15	0.85	1.00	2.00	1.00	2.00	3.00	1.00	2.00	2.27	0.73
Final Sat.:	1750	4073	1525	1750	3800	1750	3150	5700	1750	3150	4292	1306
Capacity Analysis Module:												
Vol/Sat:	0.13	0.10	0.10	0.16	0.20	0.21	0.16	0.34	0.15	0.11	0.31	0.31
Crit Moves:	****				****		****				****	
Green Time:	17.0	16.8	16.8	27.5	27.3	48.7	21.4	47.9	47.9	15.8	42.3	69.8
Volume/Cap:	0.89	0.68	0.68	0.68	0.89	0.52	0.89	0.85	0.39	0.85	0.89	0.54
Uniform Del:	50.6	49.1	49.1	42.3	44.9	26.9	48.1	32.7	25.6	50.9	36.6	15.3
IncremntDel:	34.4	4.8	4.8	9.1	13.2	2.8	18.6	4.1	1.6	18.6	6.5	0.6
InitQueuDel:	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:	85.0	53.9	53.9	51.4	58.0	29.6	66.8	36.8	27.2	69.5	43.1	16.0
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:	85.0	53.9	53.9	51.4	58.0	29.6	66.8	36.8	27.2	69.5	43.1	16.0
LOS by Move:	F	D-	D-	D-	E+	C	E	D+	C	E	D	B
HCM2kAvgQ:	293	190	190	275	424	282	351	590	189	254	596	331

Note: Queue reported is the distance per lane in feet.

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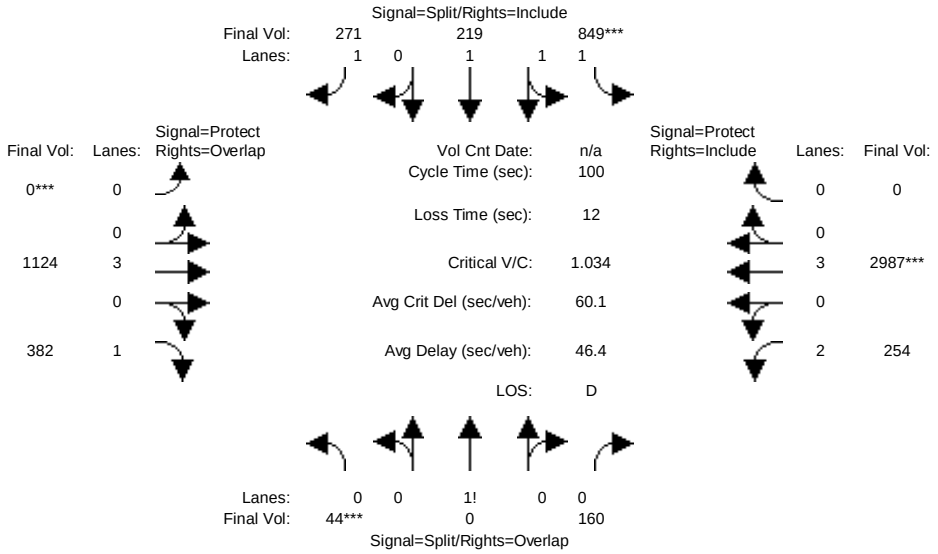
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj AM

Intersection #45: Stevens Creek Boulevard/Calvert Drive/I-280 Ramps



Street Name:	Stevens Creek Boulevard						Calvert Drive/I-280 Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	0	10	10	10	10	0	10	10	7	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	44	0	160	849	219	271	0	1085	292	254	2601	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:	44	0	160	849	219	271	0	1085	292	254	2601	0
Added Vol:	0	0	0	0	0	0	0	39	90	0	386	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	0	160	849	219	271	0	1124	382	254	2987	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:	44	0	160	849	219	271	0	1124	382	254	2987	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	0	160	849	219	271	0	1124	382	254	2987	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:	44	0	160	849	219	271	0	1124	382	254	2987	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.22	0.00	0.78	2.00	1.00	1.00	0.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:	377	0	1373	3150	1900	1750	0	5700	1750	3150	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.12	0.00	0.12	0.27	0.12	0.15	0.00	0.20	0.22	0.08	0.52	0.00
Crit Moves:	****			****			****				****	
Green Time:	11.3	0.0	26.0	26.1	26.1	26.1	0.0	36.0	47.2	14.7	50.7	0.0
Volume/Cap:	1.03	0.00	0.45	1.03	0.44	0.59	0.00	0.55	0.46	0.55	1.03	0.00
Uniform Del:	44.4	0.0	31.0	37.0	30.9	32.3	0.0	25.5	17.8	39.6	24.7	0.0
IncremntDel:	73.3	0.0	3.2	37.2	0.6	5.6	0.0	1.1	1.9	4.6	26.4	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	117.7	0.0	34.2	74.2	31.5	38.0	0.0	26.6	19.7	44.2	51.1	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:	117.7	0.0	34.2	74.2	31.5	38.0	0.0	26.6	19.7	44.2	51.1	0.0
LOS by Move:	F	A	C-	E	C	D+	A	C	B-	D	D-	A
HCM2kAvgQ:	297	0	149	584	146	213	0	237	216	127	1027	0

Note: Queue reported is the distance per lane in feet.

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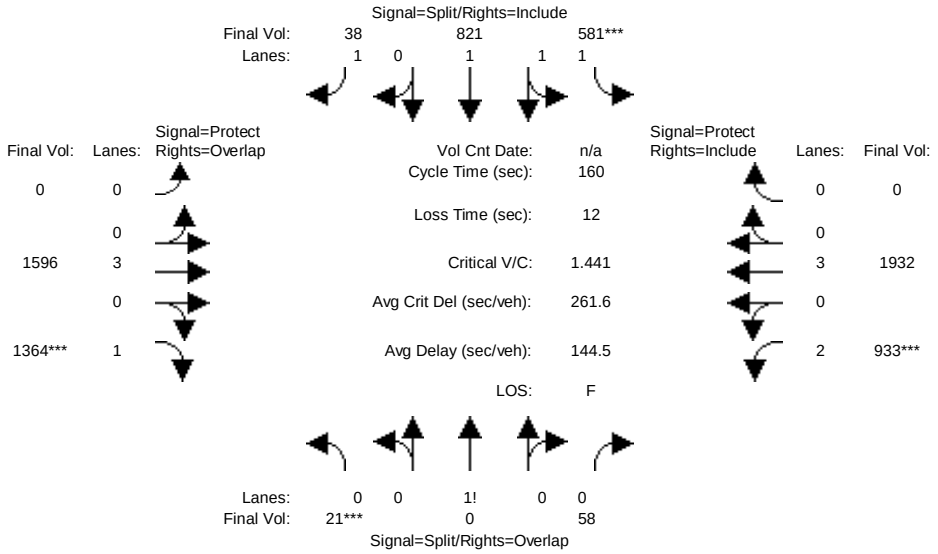
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex V82 + A + Pend + Proj PM

Intersection #45: Stevens Creek Boulevard/Calvert Drive/I-280 Ramps



Street Name:	Stevens Creek Boulevard						Calvert Drive/I-280 Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	0	10	10	10	10	0	10	10	36	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	21	0	58	581	821	38	0	1451	1030	933	1719	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:	21	0	58	581	821	38	0	1451	1030	933	1719	0
Added Vol:	0	0	0	0	0	0	0	145	334	0	213	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	0	58	581	821	38	0	1596	1364	933	1932	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:	21	0	58	581	821	38	0	1596	1364	933	1932	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	0	58	581	821	38	0	1596	1364	933	1932	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:	21	0	58	581	821	38	0	1596	1364	933	1932	0
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	0.98	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.27	0.00	0.73	1.28	1.72	1.00	0.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:	465	0	1285	2257	3189	1750	0	5700	1750	3150	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.00	0.05	0.26	0.26	0.02	0.00	0.28	0.78	0.30	0.34	0.00
Crit Moves:	****			****					****	****		
Green Time:	10.0	0.0	46.0	26.9	26.9	26.9	0.0	75.1	85.1	36.0	111	0.0
Volume/Cap:	0.72	0.00	0.16	1.53	1.53	0.13	0.00	0.60	1.47	1.32	0.49	0.00
Uniform Del:	73.6	0.0	42.5	66.5	66.5	56.5	0.0	31.3	37.5	62.0	11.3	0.0
IncremntDel:	33.7	0.0	0.7	243.3	243	0.9	0.0	1.0	215.7	152.3	0.4	0.0
InitQueuDel:	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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	107.3	0.0	43.2	309.9	310	57.5	0.0	32.3	253.2	214.3	11.8	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:	107.3	0.0	43.2	309.9	310	57.5	0.0	32.3	253.2	214.3	11.8	0.0
LOS by Move:	F	A	D	F	F	E+	A	C-	F	F	B+	A
HCM2kAvgQ:	139	0	76	1136	1136	43	0	472	3192	1134	355	0

Note: Queue reported is the distance per lane in feet.

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Appendix UT-A

Town Center/Community Park – Recycled Water Pipeline Extension

LUK AND ASSOCIATES

Project Report

Project Name: Town Center/Community Park - Recycled Water Pipeline Extension

Prepared By:

Document Owner(s)	Project/Organization Role
Manish Dalia	Luk and Associates

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0 Project Report Purpose

Luk and Associates has been contracted to analyze the proposed Town Center/Community Park project ("Project") program and evaluate the options to extend recycled water service to the Project.

This report is based on existing information, submission City application in September 2015, and information from projects in the area.. The majority of the information is with regards to recent projects and the partnership between City of Sunnyvale, Santa Clara Valley Water District, Cal Water and Apple for the Wolfe Pipeline Extension.

1 Background Information

There are two options for the Project to connect into recycled water providers in the area. These options and the parties involved are as follows.

1.1 Wolfe Pipeline Extension Project - SCVWD, Sunnyvale, Apple, and Cal Water

In 2013 the City of Sunnyvale, Santa Clara Valley Water District (SCVWD), Apple and the California Water Company (Cal Water) entered into a partnership to extend recycled water service in the City of Sunnyvale south to the Apple Campus 2 Project. The role of each partner is as follows:

- City of Sunnyvale – Recycled Water Producer
- Santa Clara Valley Water District - Wholesaler
- Cal Water – Retailer
- Apple - Customer

The Wolfe Pipeline Extension Project is a short term expansion of Sunnyvale/SCVWD's facilities and part of a greater masterplan to expand recycled water use into the west-side of Santa Clara County. The following images show the proposed pipeline extension to Apple, the associated improvements, and potential long term customers.

Figure 1-1 – Wolfe Pipeline Extension Project – From City of Sunnyvale

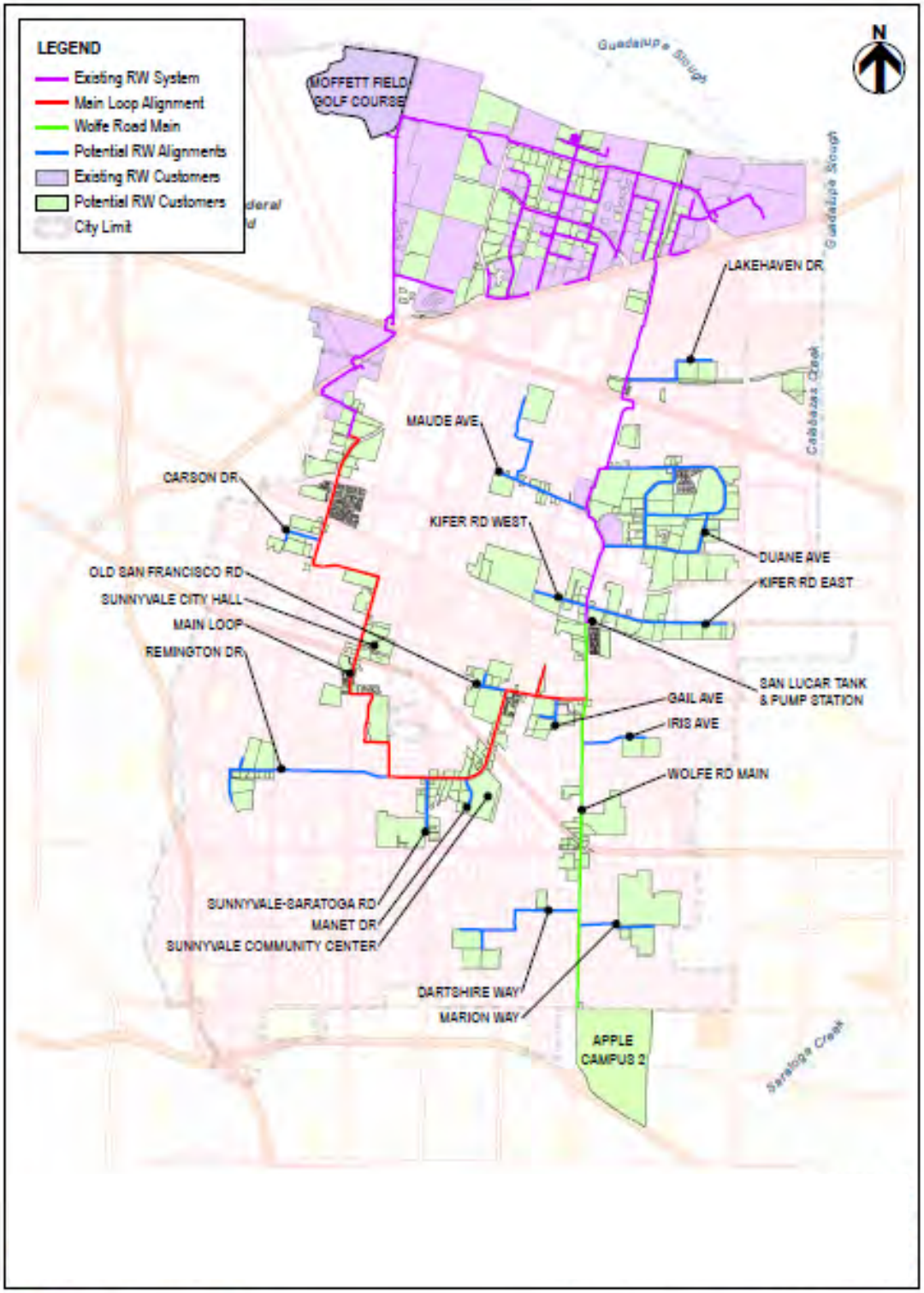
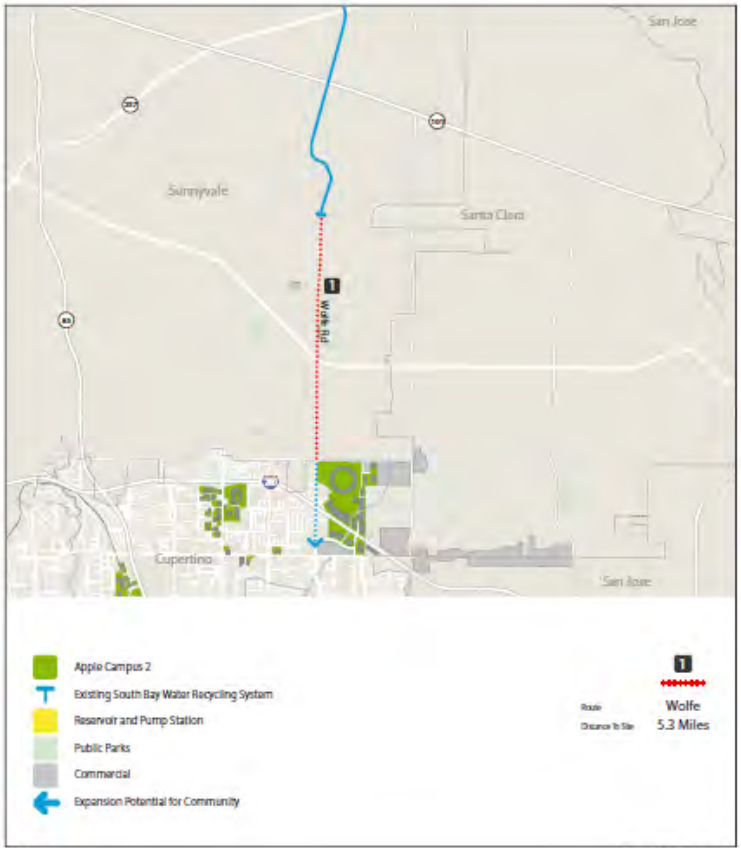


Figure 1-2 – Wolfe Pipeline Extension Project – From City of Cupertino

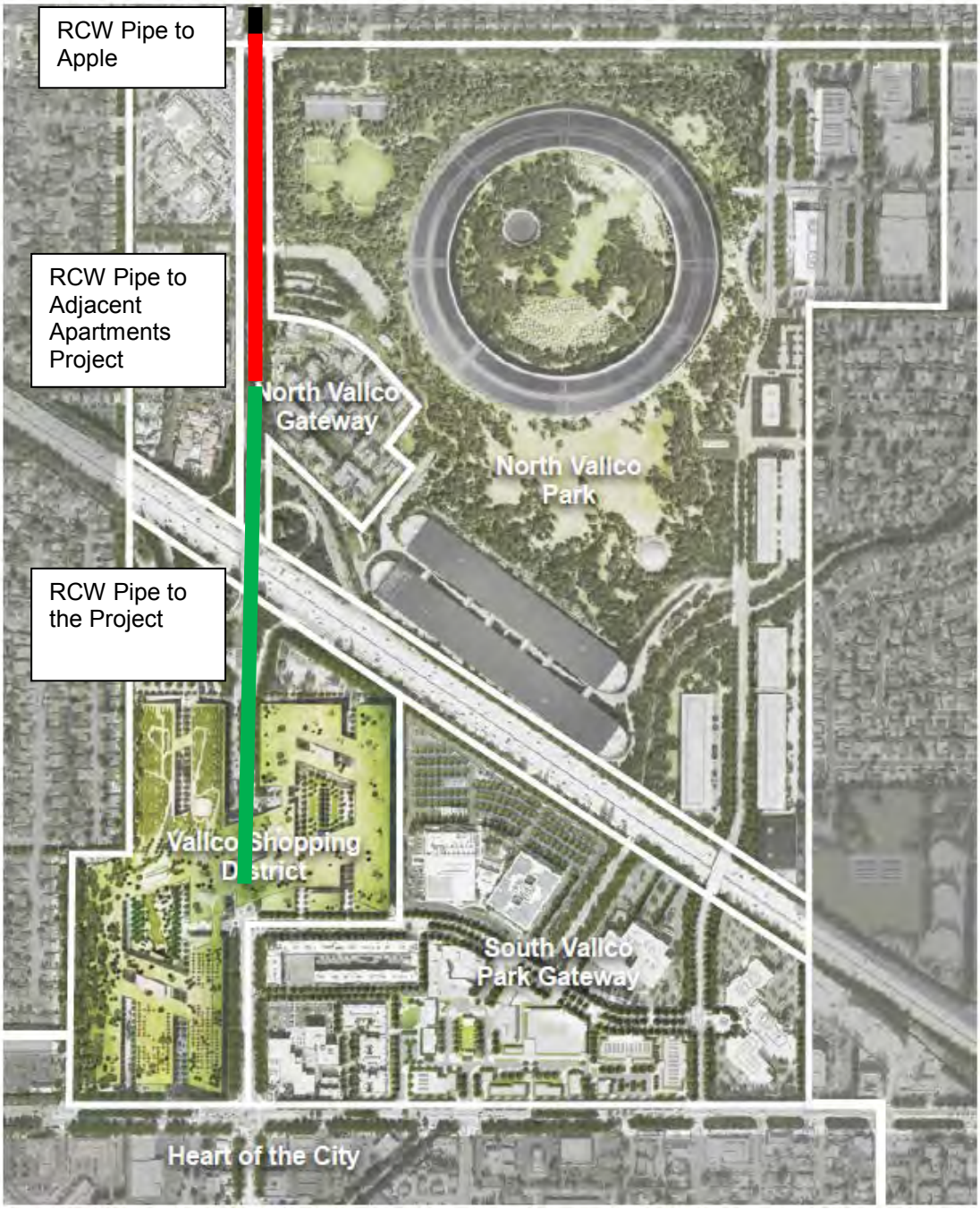


The major components and attributes of this pipeline extension project are as follows:

- 13,200 linear feet (approximately 2.5 miles) of 24-inch pipe
- 1 million gallons per day (MGD) Booster Pump Station
- Cost is approximated at $17.5M for design and construction (approximately $1,230/linear-feet, ($16.2M design/construction for pipeline only))
- 40 PSI pressure (30 to 35 PSI after meter) will be provided to Apple Campus 2
- Water quality provided to Apple is expected to be approximately 500 mg/l (Total Dissolved Solids (TDS))
- City of Sunnyvale is undertaking Wastewater treatment upgrades to provide higher quality of recycled water per Apple's requirements under Sunnyvale's Master Plan for Water Pollution Control Plant. City of Sunnyvale has stated that there is sufficient water that can be treated at the wastewater treatment plant and recycled water can be available for the City of Cupertino and future projects.

The pipeline extension to the Project would be approximately 4,200 linear feet (0.8 miles), and can be considered as two separate segments as shown below:

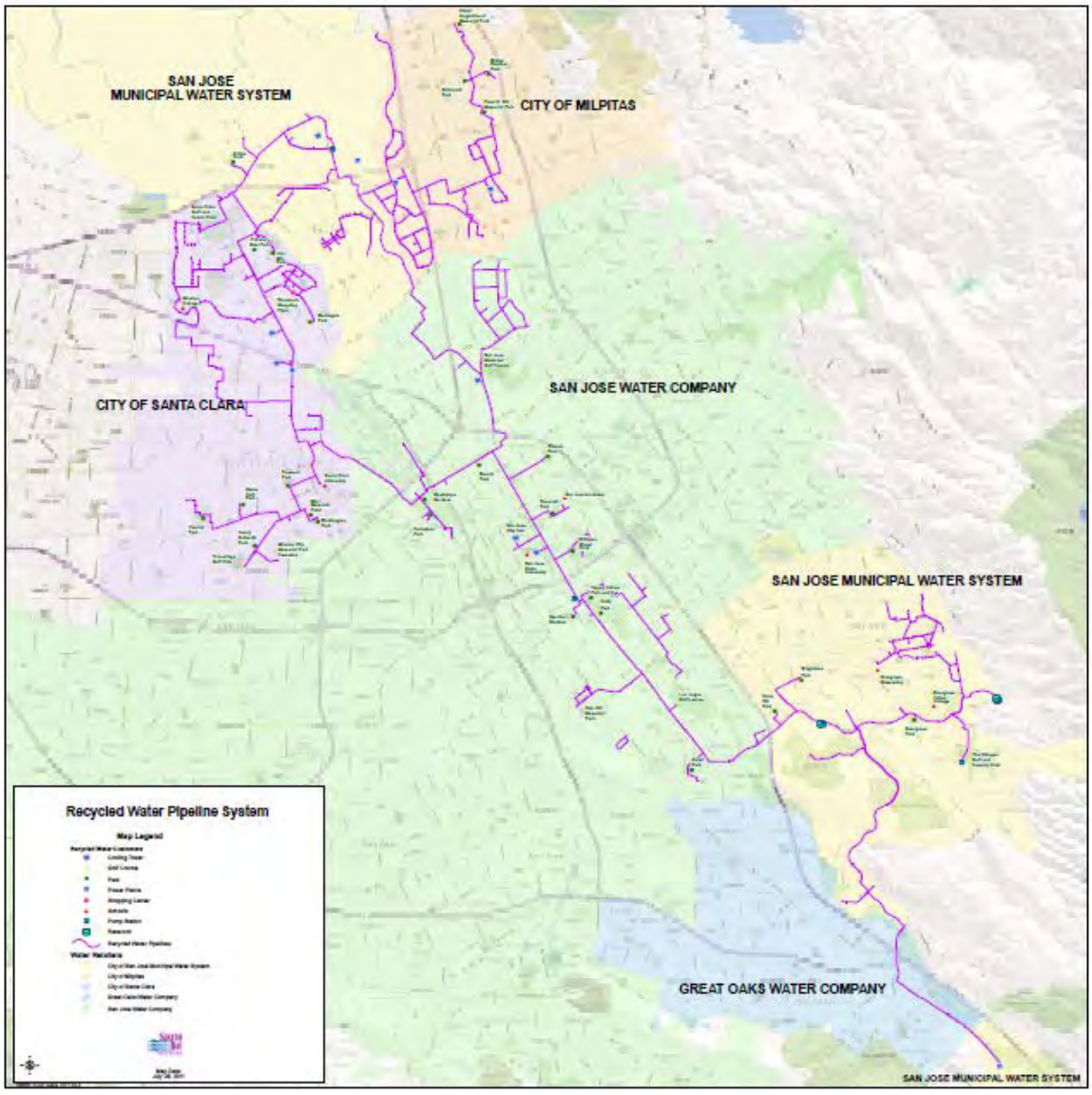
Figure 1-3 – Wolfe Sunnyvale/SCVWD - Extension to the Project



1.2 South Bay Water Recycling (City of San Jose)

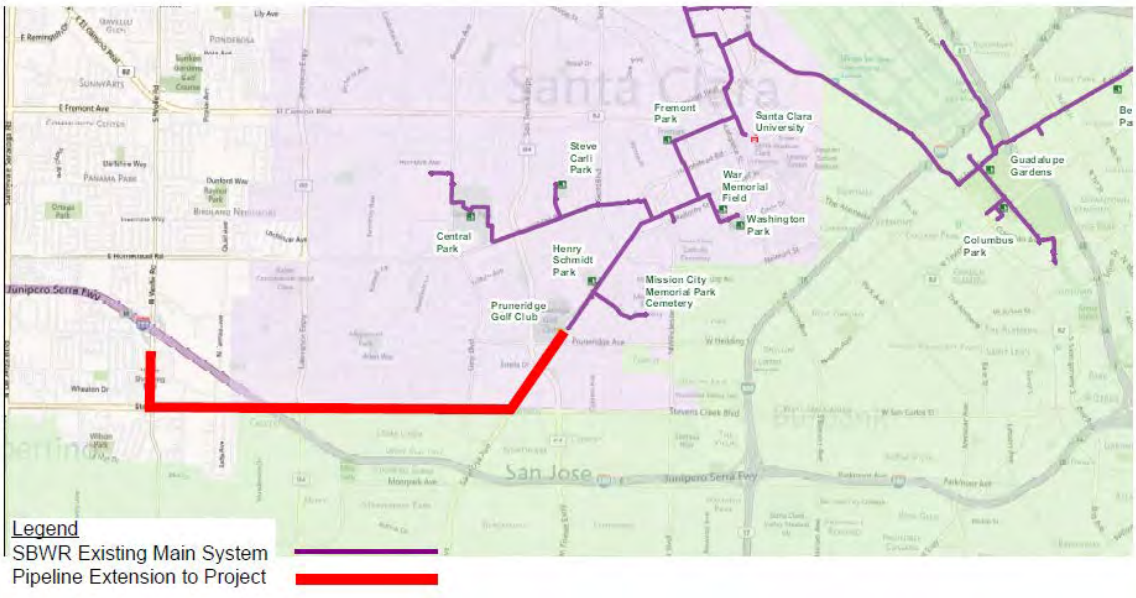
The South Bay Water Recycling (SBWR) system is owned and operated by the City of San Jose. This system extends to various areas in Santa Clara County, including the City of Santa Clara as shown in SBWR's system map.

Figure 1-4 – South Bay Water Recycling System Map



The closest point of connection for the Project would be in the City of Santa Clara near the municipal golf course. This point of connection would result in lower pressure for any new users and thus a booster pump station would be required along the line, and/or private pumps by any new user. The following image shows the potential pipe extension from SBWR to the Project.

Figure 1-5 – SBWR - Extension to the Project



The pipeline extension would be approximately 3.4 miles. The likely partners and the role of each are as follows:

- City of San Jose/South Bay Water Recycling - Recycled Water Producer/Wholesaler
- Cal Water – Retailer (Cal Water is the only entity with jurisdiction to sell water to the user in Cupertino)

Santa Clara Valley Water District and South Bay Water Recycling partner together on many recycled water projects in the area. They may be involved in this pipeline extension as well.

2 Recycled Water Demand Analysis

The recycled water demand analysis per the proposed Project program is categorized in detail in the Water Demand Assessment.

The following is a summary of the recycled water demands for the Project:

- Toilet Flushing – 21 acre-feet
- Cooling Towers – 33 acre-feet
- Irrigation – 45 acre-feet
- **Total – 99 acre-feet**

2.1 Adjacent Apartment Project - Recycled Water Demands

A nearby apartment project is also considering connecting to an extended recycled water line as part of its proposed redevelopment project.

Table 2-1 – Apartment Project Program

Apartment Project Program	Program (sqft)	Units	Size Per Unit (sqft)	People
Residential	942,000	942	1,000	1,884
Existing Residential	342,000	342	1,000	684

The following is a summary of the recycled water demands for the Project. These should be confirmed by the Hamptons Project team:

- Toilet Flushing – 7 acre-feet
- Cooling Towers – 25 acre-feet
- Irrigation – 4 acre-feet
- **Total – 36 acre-feet**

3 Preferred Recycled Water Connection

The Wolfe Road connection is the preferred option, and a route supported by the City of Cupertino, The Santa Clara Valley Water District, and City of Sunnyvale based on preliminary discussion and feedback from the agencies. The City of Cupertino would like to see this pipe reach Stevens Creek Blvd so recycled water can reach other areas of the City.

Appendix UT-B

Town Center/Community Park – Sanitary Sewer Capacity Study

LUK AND ASSOCIATES

Project Report

Project Name: Town Center/Community Park – Sanitary Sewer Capacity Study

Prepared By:

Document Owner(s)	Project/Organization Role
Manish Dalia	Luk and Associates

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0 Project Report Purpose

Luk and Associates has been contracted to analyze the proposed Town Center/Community Park project ("Project") program and evaluate the capacity of the sanitary sewer system in the surrounding area and potential Project impacts.

This report is a study based on existing information, a City application in September 2015, and public information from projects in the area. This report summarizes the items related to the sanitary sewer design upgrades required to facilitate the Project development, and other future development in the Cupertino area.

1 Background and Overview

Luk and Associates met with the Cupertino Sanitary Sewer District (CSD) to discuss the existing system and the proposed Project. The majority of the existing buildings on the Project site discharge to the 15-inch main sewer flowing north on Wolfe Road. This 15-inch line services a large portion of the City of Cupertino, and is at capacity (assuming half full flow) for dry weather flow.

The 15-inch sewer system, connects to the recently installed 27-inch at Wolfe/Pruneridge that ultimately discharges to the San Jose/Santa Clara Water Pollution Control Plant via the City of Santa Clara system.

The Cupertino Sanitary Sewer District noted that inflow and infiltration of stormwater into the sanitary sewer system is an issue, and is usually evident 12 to 24 hours after a storm.

As part of the development agreement of the Rose Bowl Development Project (south east corner of N. Wolfe Road and Vallco Pkwy.) a 15-inch sewer pipe was installed along Wolfe from the Project Area, to the perimeter road tunnel.

2 Capacity Analysis

The preliminary study of the flow capacity for the existing sanitary sewer network is based on the network geometry. The calculations assume the following:

- Manning's equation is used to calculate the flow capacity. Upstream flows, infiltration, etc flows have not been considered
- All existing pipes are VCP and their Mannings "n" coefficient is 0.012
- Design capacity for 15-inch pipes and smaller is (0.5D) and for 18-inch pipes and larger is (0.66D or 77.3% of full flow capacity). Depths are expressed in terms of d/D, where "d" is the flow depth and "D" is the diameter

The (4) segments of the sewer system were analyzed, these lines are defined as follows:

- Existing 15-inch pipe @ 0.5% on the west side of Wolfe to Vallco Parkway
- Recently Installed 15-inch pipe @ 1% slope on the east side of Wolfe to Vallco Parkway
- Existing 8-inch overflow pipe @ 0.5% slope from the Norwich Drive Residential Area
- Existing 15-inch pipe @ 0.5% slope from Wolfe near I-280 southbound off-ramp running north

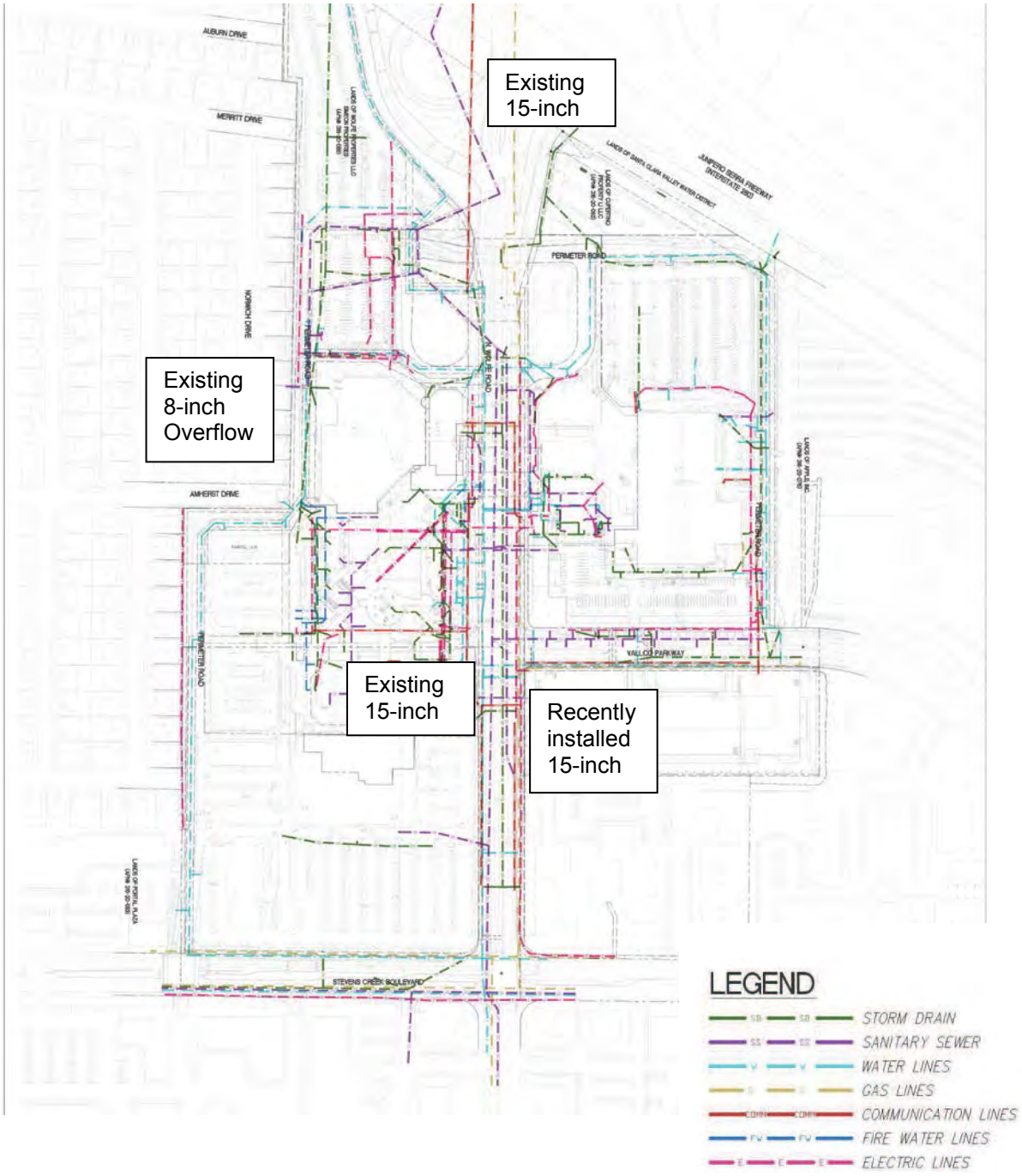
Field verification of existing pipe sizes/slopes is required.

The flow capacity for these (4) segments of the system are as follows:

- Existing 15-inch pipe on the west side of Wolfe - Qd = 2.48 cfs
- Recently Installed 15-inch pipe on the east side of Wolfe - Qd = 3.51 cfs
- Existing 8-inch overflow pipe from the Norwich Drive Residential Area - Qd = 0.46 cfs
- Existing 15-inch pipe from Wolfe near I-280 southbound off-ramp running north - Qd = 2.48 cfs

As a result, the maximum capacity of the existing pipes entering the project area is 6.45 cfs. The capacity of the pipe going north on Wolfe across Interstate 280 (I-280) is 2.48 cfs. In preliminary meetings with CSD they indicate this pipe is undersized for the existing conditions and future development. CSD should provide historical flow data if available, to be included in the analysis.

Figure 2-1 - Existing Utilities Map and Critical Pipe Segments (from Planning Documents)



3 Catchment Analysis

3.1 Existing catchment analysis

The existing mall/retail is approximately 1.2 M sqft. It is assumed that 400,000 sqft is east of Wolfe Road and 800,000 sqft is on the west side of Wolfe Road.

3.2 Proposed Catchment Analysis

The sanitary sewer systems from the Project will discharge to 2 discreet areas, west of Wolfe Road and East of Wolfe Road. These areas are based on the utility relocations required in Wolfe/Vallco, see civil drawings from the Planning Application. Proposed project will intercept the SS line at the intersection of Wolfe/Vallco and redirect east and around the perimeter road to the Caltrans connection point.

The east of Wolfe Road catchment will consist of approximately 2,000,000 sqft of mixed use office/commercial and the cooling towers. The cooling towers may move locations in the future, and if it does the analysis will be updated accordingly. The flow from this area will be conveyed in a relocated line from Wolfe/Vallco intersection to Vallco/Perimeter to Wolfe near near I-280 southbound off-ramp.

The west of Wolfe Road catchment will consist of approximately 800,000 sqft of residential and approximately 625,000 sqft of office/commercial. The flow from this area will be conveyed in a new line from the south end of Perimeter Road near Stevens Creek Blvd, around Perimeter Road, to Wolfe near near I-280 southbound off-ramp.

3.3 Existing & Proposed Catchment Comparison

Comparing the proposed and existing catchments, the difference in areas can be used to help determine a relocation strategy along Wolfe/Perimeter Roads. The differences are summarized as follows:

- West of Wolfe Catchment decrease of 200,000 sqft of retail and increase of 800,000 sqft of residential
- East of Wolfe Catchment decrease of 400,000 sqft of retail and increase of 2,000,000 sqft of commercial

Since the land uses are different, the catchment comparison does not provide an accurate means of assessing sewer capacity upgrades.

Figure 3-1 – Proposed Utility Relocation and Catchment Map (from Planning Document)

4 Flow Projections Analysis

4.1 Existing average daily flow analysis

The existing average daily flow dry weather is assessed based on the existing water use records. The existing water demand will be obtained from Cal Water's Water Supply Analysis (WSA) from the EIR. Per Industry Standards, 90% of the indoor potable water demand is assumed to flow to the sewer system.

4.2 Proposed average daily flow

The proposed average dry weather daily flows are based on the proposed annual water demand assessment (WDA) prepared by Luk for the WSA/EIR. 90% of the indoor potable water demand is assumed to flow to the sewer system.

The following table illustrates the projected dry weather flows:

Table 4-1 - Proposed Project Sewer Flows

Water Demands with Recycled Water Use	Project Annual Water Use (acre-feet)	Sanitary Sewer Flows %	Project Daily Sewer Flows (CFS)	Project Daily Sewer Flows (MGD)
Indoor - Office	38	90%	0.05	0.03
Indoor - Cooling Towers	66	90%	0.08	0.05
Indoor - Residential	18	90%	0.02	0.01
Indoor - Retail	90	90%	0.11	0.07
Total	**212**		**0.26**	**0.17**
West of Wolfe - Total			**0.13**	**0.08**
East of Wolfe - Total			**0.13**	**0.09**

It should be noted that recycled water is planned to be used to meet demands for toilet flushing and a portion of the cooling tower demand. If recycled water is used or not, it will not impact the overall sanitary sewer flow projections.

4.3 Existing & Proposed Average Daily Flow Comparison

Comparing the proposed and existing average daily flow, the difference can be used to determine the impact of the Project. The differences will be accounted for when the existing water use information is available from Cal Water.

4.4 Existing & Proposed Flow Comparison per General Plan Update

The Cupertino Sanitary District provided a letter to the City of Cupertino, projecting sewer flows based on the General Plan Update. Within this letter CSD provided sewer rates based on program that should be used to estimate flows. The existing and proposed flow comparison per the General Plan Update is as follows:

Table 4-2 - Proposed Project and Existing Sewer Flows per General Plan Update

Program	Program (sqft)	Residential Occupancy	Sewer Flow Rate (gpd/sf)	Project Daily Sewer Flows (mgd)
Office	2,000,000		0.15	0.30
Residential	800,000	1,120	94.00	0.11
Entertainment	187,500		0.10	0.02
Restaurant/Food and Beverage	200,000		0.10	0.02
Retail	237,500		0.10	0.02
Total	237,500			**0.47**
Existing Retail	1,200,000		0.10	(0.12)
Additional Sewer Flow	-			**0.35**

The existing retail component of the site (approx. 1.2 million sqft of retail) was considered as a credit to calculate the additional sewer flows attributed to the Project.

The rates used in the general plan update (total sewer flow of 0.47 MGD) are conservative considering that the total sewer flow attributed to the Project is almost three times greater than the projected sewer flow from the Water Demand Analysis (total sewer flow of 0.17 MGD). When sizing the improvements in this area, the sewer flows based on the Water Demand Assessment should be used.

5 Peaking Factors

Cupertino Sanitary District contracted a consultant to perform a capacity analysis and flow monitoring study for the proposed sanitary sewer relocation associated with a previously approved project. The Technical Memorandum is titled *Cupertino Sanitary District – Pruneridge Trunk Sewer Rerouting Project: Capacity Analysis for a 10-Year, 24 Hour Rainfall Event* and was prepared by V&A on July 12th, 2013.

The analysis used flow monitoring data from November 2012, December 2012 and March 2013. The dry weather flow was separated from the infiltration/inflow associated with rainfall events. A capacity calculation was performed using the 10-YR, 24-hour storm event to approximate inflow and infiltration for the system.

Considering the flow analysis information around the area, the following are the peaking factors for the system and the projected flows:

- Dry Weather Peaking Factor = 1.65 (Peak Dry Weather flow / Average Flow)
- Wet Weather Peaking factor = 4.68 (Peak Flow / Average Flow)

Table 5-1 - Proposed Project Sewer Flows with Peaking Factors

Water Demands with Recycled Water Use	Project Annual Water Use (acre-feet)	Sanitary Sewer Flows %	Project Daily Sewer Flows (CFS)	Project Daily Sewer Flows (MGD)	Project Daily Sewer Flows with Peaking Factor (CFS)	Project Daily Sewer Flows with Wet Weather Peaking Factor (CFS)
Indoor - Office	38	90%	0.05	0.03	0.08	0.22
Indoor - Cooling Towers	66	90%	0.08	0.05	0.14	0.39
Indoor - Residential	18	90%	0.02	0.01	0.04	0.11
Indoor - Retail	90	90%	0.11	0.07	0.19	0.53
Total	**212**		**0.26**	**0.17**	**0.44**	**1.23**
West of Wolfe - Total			**0.13**	**0.08**	**0.21**	**0.60**
East of Wolfe - Total			**0.13**	**0.09**	**0.22**	**0.63**

5.1 Relocation Capacity

To optimize the existing system, the relocation capacity should be equal to the capacity of the incoming pipes, and the project flows considering the wet weather peaking factor.

- East of Wolfe Catchment = Project Flows with Wet Weather Peaking Factor + Capacity Existing 15-inch pipe on the west side of Wolfe + Capacity of Recently Installed 15-inch pipe on the east side of Wolfe
    - West of Wolfe Catchment = 0.59+2.48+3.51
    - 6.58 cfs (approximately a 21-inch pipe @0.3%)

- West of Wolfe Catchment = Project Flows with Wet Weather Peaking Factor + Existing 8-inch overflow pipe from the Norwich Drive Residential Area
    - East of Wolfe Catchment = 0.78 + 0.46
    - 1.24 cfs (approximately a 12-inch pipe @0.5%)

- Additional Capacity north of Wolfe = West of Wolfe Catchment + East of Wolfe Catchment - Capacity of Existing 15-inch pipe from Wolfe near I-280 southbound off-ramp running north
    - Additional Capacity north of Wolfe = 6.58 + 1.24 – 2.48
    - Additional Capacity north of Wolfe = 5.34
        - Replacing existing 15-inch line at 0.5% slope with 21-inch line at 0.4% slope
        - Install parallel 18-inch line at 0.4% slope

The Project should anticipate funding its fair share of improvements to accommodate its development program, net of existing flow demands, if any. The cost of upgrading the system existing conditions as a result of previous should be shared between CSD, the Project, and other new/future Projects in the area that would benefit with the improvements to the system. We recommend further coordination with CSD on sanitary sewer design, and field verification of all existing pipe sizes/slopes should be confirmed prior to final design of the improvements. .

Appendix UT-C

Town Center/Community Park – Water Demand Assessment

LUK AND ASSOCIATES

Project Report

Project Name: Town Center/Community Park – Water Demand Assessment

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0 Project Report Purpose

Luk and Associates has been contracted to analyze the proposed Town Center/Community Park project ("Project") program and evaluate the water demands of the Project.

This report is a study based on existing information, a City application in September 2015, and information from projects in the area.

1 Project Program

The Project Program analyzed is as follows:

Table 1-1 – The Project and Population Estimate

Project Program	Program (sqft)	Units	People/ Employee	Men	Woman	Notes
Office	2,000,000		8,000	4,000	4,000	1 employee per 250 sqft Assumed to have separate fitness facilities and cafeteria
Office Amenities	175,000					
Civic/Community Space	45,000					
Residential	800,000	800	1,120	560	560	(160) Studios, (320) 1 Bed room, (304) 2 bedrooms, (16) 3 bedrooms Assumed 1 person per bedroom/studio
Entertainment	187,500		750			1 employee per 250 sqft
Restaurant/Food and Beverage	200,000		800			1 employee per 250 sqft
Retail	237,500		950			1 employee per 250 sqft
Existing Retail	1,200,000					

The Office amenities space is assumed to be used by a similar employee base as the regular office, so it will not produce a separate water demand.

Table 1-2 – Landscaping Program

Landscape Type	Acreage
Roof - Oak Chaparral	17.87
Roof - Valley Meadow	5.26
Roof - Olive Grove	1.04
Roof - Vineyard	3.98
Roof - Orchard/Understory	2.16
Roof - Lawn and Turf	0.14
Ground - Trees	5.07
Ground - Ground Cover	4.05
Ground - Lawn and Turf	1.01
Total	40.59

2 Water Demand

The most significant water demand categories for the project are as follows:

- Indoor fixtures in the commercial, residential and retail components of the project (toilets, urinals, sinks, drinking fountains, showers, water for cooking and cleaning, etc.)
- Process water for mechanical cooling systems
- Landscape irrigation

Two scenarios have been investigated: Typical Development and the Project. The Typical Development scenario uses the Project program and baseline demand rates and assumptions typical of a project built in Silicon Valley today. The Project Design assumes water-efficient design. This design considers the implementation of water-efficiency measures for indoor, outdoor, and cooling systems.

The Project is committed to constructing a dual plumbing system if recycled water is available for Project use. This commitment will reduce the amount of domestic water use. Toilet flushing, cooling, and limited landscape irrigation demands can potentially be met using recycled water, assuming acceptable level of quality. Thus, the Project water demands will be classified as typical development, domestic and potential recycled water use.

2.1 Indoor Water Demand

The Typical Development water demand uses current industry standard demand assumptions for fixtures. These uses include toilets, urinals, sinks, drinking fountains, and showers. Typical Office Development demand estimates are based on the number of employees, the expected usage of facilities (bathrooms, gym showers, drinking fountains, etc.) and the fixture flows and durations. 20% of employees are assumed to use the gym each day, and 80% are assumed to eat the office cafeteria.

Indoor fixtures for sinks, drinking fountains, showers, etc. require potable water. Toilets, urinals, and building cooling systems can use alternative non-potable water sources, if available and of acceptable quality.

Indoor water demands can be reduced by improving the efficiency of the fixtures beyond the minimum code requirements. Examples of fixture efficiency measures are as follows:

- Reduce toilet flushing from 1.6 gallons per flush to 1.28 (CALGreen requirement is 1.28 gpf)
- Reduce urinal flushing from 1 gallon per flush to 0.125 (CALGreen requirement is 0.6 gpf)
- Reduce shower flow rates from 2.5 gallons per a minute to 1.5 (CALGreen requirement is 2 gpm)
- Reduce kitchen sink flow rates (CALGreen requirement is 1.8 gpm)
- Reduce lavatory faucets from 1.5 gallons per minute to 0.5 (CALGreen requirement is 0.5)

Combined, these efficiency measures result in a fixture water demand reduction of approximately 35%. These measures also meet the CALGreen requirements if recycled water is not provided to the Project.

Table 2-1 – Indoor Water Demands Office

Use Type	Number of People	Daily Occupant use per day	Durations (seconds)	Typical Flowrate (GPM) or Gallons Per use	Typical Demand (gallons)	Project Flowrate (GPM) or Gallons Per use	Project Demand (gallons)	Notes/ Assumptions	
Men - Toilet	4,000	1	60	1.6	6,400	1.28	5,120		
Men - Urinal	4,000	2	60	1	8,000	0.13	1,000		
Woman - Toilet	4,000	1	60	1.6	6,400	1.28	5,120		
Woman - Dual Flush Toilet	4,000	2	60	1.6	12,800	1.00	8,000		
Drinking Fountain	8,000	1	5	1	667	1	667		
Bathroom Faucet	8,000	3	15	0.5	3,000	0.5	3,000		
Bathroom Faucet	8,000	3	15	0.5	3,000	0.5	3,000		
Showers Gym	1,600	1	300	2.5	20,000	1.5	12,000	20%	20% of employees use the showers in the building and/or at the gym
Gym Bathroom Faucet	1,600	1	15	0.5	200	0.5	200	20%	20% of employees use the bathroom faucet in the building and/or at the gym
Kitchen Sink	8,000	1	15	2.2	4,400	1.5	3,000		
Cafeteria	1,600	1	N/A	6	7,680	6	7,680	6	Office Cafeteria approximated 6 gallons per employee eating (80%), per day
Daily demand (gallons)					72,547		48,787		
Annual demand (acre-feet)					55.8		37.5	251	Work Days
Daily demand (gallons/SF)					0.04		0.02		
Daily demand (gallons/employee)					9.07		6.10		
Annual demand recycled water (acre-feet)					25.9		14.8		

Table 2-2 – Indoor Water Demands Residential

Use Type	Number of People	Daily Occupant use per day	Durations (seconds)	Typical Flowrate (GPM) or Gallons Per use	Typical Demand (gallons)	Project Flowrate (GPM) or Gallons Per use	Project Demand (gallons)	Notes/ Assumptions	
Toilet	1,120	1	60	1.6	1,792	1.28	1,434		
Dual Flush Toilet	1,120	3	60	1	3,360	0.13	420		
Bathroom Faucet	1,120	6	15	0.5	840	0.5	840		
Bathroom Faucet	1,120	6	15	0.5	840	0.5	840		
Showers	1,120	1	300	2.5	14,000	1.5	8,400		
Kitchen Sink	1,120	3	15	2.2	1,848	1.5	1,260		
Dishwasher	1,120	0.33	60	6	2,218	4	1,478		
Laundry	1,120	0.33	60	8	2,957	6	2,218		
Daily demand (gallons)					27,854		16,890		
Annual demand (acre-feet)					29.9		18.1	350	Live Days
Daily demand (gallons/person)					24.87		15.08		
Daily demand (gallons/unit)					33.72		20.45		
Annual demand recycled water (acre-feet)					5.5		2.0		

Table 2-3 – Indoor Water Demands Retail

Program Type	Program (sqft)	Typical Water demand (gallons per SF)	Typical Demand (gallons)	Project Water demand (gallons per SF)	Project Demand (gallons)	Notes/ Assumptions	
Entertainment	187,500	0.16	30,606	0.11	20,582	6	Times Retail
Restaurant/Food and Beverage	200,000	0.41	81,615	0.27	54,885	15	Times Retail
Retail	237,500	0.03	6,461	0.02	4,345		Similar to office space without cafeteria
Civic/Community Space	45,000	0.03	1,224	0.02	823		Similar to office space without cafeteria
Daily demand (gallons)			119,906		80,635		
Annual demand (acre-			134.3		90.3	365	Work Days
Approximate eating customers per day (people)					9,148	6	Office Cafeteria approximated 6 gallons per employee eating, per day
Annual demand recycled water (acre-feet)			6.7		4.5	5%	Percentage of Recycled Water Use

The water usage rates have been assumed to be different for entertainment, restaurant/food and beverage and retail. These rates should be confirmed by Cal Water. Civil/Community Space was assumed to have a similar water usage as typical retail.

2.2 Process Water for Mechanical Cooling Systems

The Typical Development water demand uses industry-standard demand assumptions for the mechanical cooling system. The baseline assumptions are the provision of direct potable makeup water and chemical treatment for system protection. This information, combined with the project program, is used to estimate the water that a typical project would use.

Process water for the building cooling systems is the largest water demand. Because of this, it is desirable for the cooling towers to run on recycled water. Towers are anticipated to use slightly more water overall with recycled water due to elevated chloride concentrations. Three cycles of concentration is assumed for process water demand using a blend of domestic and recycled water. Operating cooling towers at higher cycles of concentration results in makeup water savings, as fresh water is less frequently used to charge the towers. A non-chemical treatment system ensures that corrosion and bacterial/microbial growth are mitigated, while allowing slightly higher cycles of concentration than chemical treatment. Treatment type is yet to be confirmed.

Total consumption is still in development for recycled water and may vary based on final building design and programming, as well as available quality. Final quality requirements are subject to change, confirmation of requirements to follow review and acceptance by selected equipment vendors. It is expected that the recycled water quality will improve in the future and the amount of recycled water use would increase.

The estimate for cooling tower demand for office/retail spaces is as follows:

Table 2-4 – Cooling Towers Water Demands

Baseline Cooling Demand	125	acre-feet				
Hybrid Cooling Savings	27	acre-feet				
Geothermal/Ice Savings	27	acre-feet				
Shift Cooling load to Ice Overnight	18	acre-feet				
Cooling Tower Water Demand	53	acre-feet				
Cooling Tower Assumptions - Typical Development Covering all Demand						
Makup Water Chloride Concentration (PPM)	Water Type	Chloride Concentration Limit (PPM)	Cycles of Concentration	Annual Water Demand (acre-feet)	Potable Water Demand (acre-feet)	Recycled Water Demand (acre-feet)
145	Recycled Water from Sunnyvale (Blending at Sunnyvale Wastewater Treatment Plant to obtain 500 TDS limit)	250	1.7	219		219
110	50/50 Blend Recycled/Potable Water	250	2.3	156	78	78
75	Potable Water	250	3.3	125	125	
Cooling Tower Assumptions - 5,000 tons of remaining cooling demand						
Makup Water Chloride Concentration (PPM)	Water Type	Chloride Concentration Limit (PPM)	Cycles of Concentration	Annual Water Demand (acre-feet)	Potable Water Demand (acre-feet)	Recycled Water Demand (acre-feet)
145	Recycled Water from Sunnyvale (Blending at Sunnyvale Wastewater Treatment Plant to obtain 500 TDS limit)	250	1.7	93		93
110	50/50 Blend Recycled/Potable Water	250	2.3	66	33	33
75	Potable Water	250	3.3	53	53	

2.3 Landscape Irrigation

The Water Use Classifications of Landscape Species (WUCOLS) Landscape Coefficient Method was used to develop the typical demand for the landscaping irrigation system. This method, combined with the preliminary landscape plan, is used to estimate the water a typical commercial development of this scale would use. The factors that are considered for landscape water demands are climate, planting type, planting density, and irrigation efficiency.

Adjustments to the landscape irrigation demand assumptions significantly impact the water estimate. Irrigation demand is reduced by using plants that consume less water and by increasing the efficiency of the irrigation systems. It is currently assumed that at least 50% of the landscape irrigation needs can be met with recycled water. When Sunnyvale improves the quality of recycled water in the future, a majority of landscape irrigation demands can be met by recycled water.

The assumptions for each factor in the landscape water demand are shown, and the average use estimates for each type of planting under the Typical Commercial Development and Project are as follows:

Table 2-5 – Irrigation Water Demands

Landscape Type	Acreage	Typical Demand Rate (acre-feet/acre)	Typical Annual Demand (acre-feet)	Project Demand Rate (acre-feet/acre)	Project Annual Demand (acre-feet)	Notes/ Assumptions	
Roof - Oak Chaparral	17.87	2.94	52.6	1.57	28.1		
Roof - Valley Meadow	5.26	4.12	21.6	2.35	12.4		
Roof - Olive Grove	1.04	4.12	4.3	2.35	2.5		
Roof - Vineyard	3.98	4.39	17.5	2.97	11.8		
Roof - Orchard/Understory	2.16	8.24	17.8	6.06	13.1		
Roof - Lawn and Turf	0.14	5.88	0.8	4.12	0.6		
Ground - Trees	5.07	2.94	14.9	1.57	8.0		
Ground - Ground Cover	4.05	4.12	16.7	2.35	9.5		
Ground - Lawn and Turf	1.01	5.88	6.0	4.12	4.2		
Total	40.59	3.75	152.2	2.22	90.1		
Annual demand recycled water (acre-feet)			76		45	50%	Recycled Water Ratio

Table 2-6 – Detailed Irrigation Water Demands Calculations with WUCOLS methodology

		Typical Project						Hills at Vallco					
Landscape Type	Acreage	Plant Species Factor (ks)	Density Factor (kd)	Microclimate Factor (kmc)	Landscape/ crop coefficient (Kc) or (Kl)	Irrigation efficiency (%)	Annual Water Demand (feet)	Plant Factor	Density Factor	Microclimate Factor	Landscape/ crop coefficient	Irrigation efficiency	Annual Water Demand (feet)
Roof - Oak Chaparral	17.87	0.5	1	1	0.5	70%	2.94	0.4	0.9	0.9	0.324	85%	1.57
Roof - Valley Meadow	5.26	0.7	1	1	0.7	70%	4.12	0.6	0.9	0.9	0.486	85%	2.35
Roof - Olive Grove	1.04	0.7	1	1	0.7	70%	4.12	0.6	0.9	0.9	0.486	85%	2.35
Roof - Vineyard	3.98				0.8	75%	4.39				0.65	90%	2.97
Roof - Orchard/Understory	2.16				1.4	70%	8.24				1.25	85%	6.06
Roof - Lawn and Turf	0.14				1	70%	5.88				0.85	85%	4.12
Ground - Trees	5.07	0.5	1	1	0.5	70%	2.94	0.4	0.9	0.9	0.324	85%	1.57
Ground - Ground Cover	4.05	0.7	1	1	0.7	70%	4.12	0.6	0.9	0.9	0.486	85%	2.35
Ground - Lawn and Turf	1.01				1	70%	5.88				0.85	85%	4.12

The establishment period is expected to be within the first 10 years after planting. For some plant species it may be shorter. During the establishment period, an additional 20% of the annual irrigation demand should be included for each plant type.

3 Water Demand Summary

The following is a summary of the recycled water demands for the Project:

Table 3-1 – Water Demand Summary using all Potable Water

Water Demands Using All Potable Water	Typical Annual Demand (acre-feet)	Project Annual Demand (acre-feet)
Indoor - Office	56	38
Indoor - Residential	30	18
Indoor - Retail	134	90
Cooling Towers	125	53
Irrigation	152	90
Total	497	289

Table 3-2 – Water Demand Summary using Potable Water and Recycled Water

Water Demands with Recycled Water Use	Typical Annual Potable Demand (acre-feet)	Typical Annual Recycled Demand (acre-feet)	Project Annual Potable Demand (acre-feet)	Project Annual Recycled Demand (acre-feet)
Indoor - Office	30	26	23	15
Indoor - Residential	24	6	16	2
Indoor - Retail	128	7	86	5
Cooling Towers	78	78	33	33
Irrigation	76	76	45	45
Total		529		302
	336	192	203	99
Percentage of Total	64%	36%	67%	33%

Recycled water would be used for non-potable needs such as toilet flushing, cooling demands, and a portion of irrigation requirements. These demands constitute 33% of the Project demand, equivalent to 99 ac-ft/yr. On-site rainwater reuse and greywater treatment systems are being investigated to limit the amount of water used as well.

The water consumption records for the existing buildings (1.2 M SF retail) will be studied by Cal Water as part of the EIR's Water Supply Assessment. The existing use records will be compared to the future demand to evaluate the impact of the Project in the Water Supply Assessment (WSA).

The Vallco project would allegedly use recycled water. This would come from the Donald M Somers wastewater treatment plant up in Sunnyvale if the line was extended past Apple Campus 2's connection at the intersection of Homestead and Wolfe Rd. Apple kicked in over $4 million, and the other agencies put up $25 million to get the recycled line to their Apple Campus 2. We might think this recycled water comes free somehow, far from it, it is expensive to produce and it is subsidized, so while it costs more than 3 TIMES as much as potable water to produce, Sunnyvale however only charges 90% of their drinking water rate.

Sunnyvale charges $3.95/hcf for their recycled water. This is advanced reverse osmosis tertiary treated water, and not cheap to make. Yes, we are glad it's not running into the bay, but do we need to subsidize Apple? And would it be better to use it for groundwater recharge which has also been proposed.

The Vallco green roof would consume 80,369 gallons/day, that's 90.02 acre feet per year.

This puts the not so green roof in 4th place for Sunnyvale's largest user water customers of their fancy state of the art recycled water. Behind Sunnyvale Golf Course (183.9 Acre feet/year), Moffet Field Golf Course (118.5 afy), and Baylands Park (95.5 afy) comes Vallco Green Roof at 90 afy.

(An acre foot is an acre filled with water one foot deep. So 90 acres of water one foot deep.)

Their water bill will be a whopping $154,677 per year. And we would be first subsidizing it, and then likely paying for it outright because, looking into the City of Cupertino's "Recreation, Parks, and Services Element, Chapter 9" of their Community Vision 2040 they state **"If public parkland is not dedicated, require park fees based on a formula that considers the extent to which the publicly-accessible facilities meet community need**."

The plan even states "Design parks to utilize natural features and the topography of the site in order to protect natural features and keep maintenance costs low" and that parkland acquisition would be based on: "Retaining and restoring creeks and other natural open space areas."

Further, the roof violates the city's own policies:

Policy RPC-7.1: Sustainable Design Ensure that City facilities are sustainably designed to minimize impacts on the environment.

Policy RPC-7.2: Flexibility Design facilities to be flexible to address changing community needs.

Policy RPC-7.3: Maintenance Design facilities to reduce maintenance, and ensure that facilities are maintained and upgraded adequately

Sustainable design/minimize impacts: The Vallco project scours the entire site and encases it in concrete, EDF 43 shows 400' of mature trees to be removed for lane widening on Wolfe Road to mitigate traffic. It is highly likely a bus pull out lane would require more mature trees be removed on Stevens Creek Blvd. for the 'mobility hub' or fancy bus stop located there. And because the northbound Wolfe Road lanes were reconfigured in the Vallco plan to be only 3 lanes, and the Apple buses use northbound Wolfe Rd. to access the I-280 southbound, it is likely the trees on the east side of Wolfe Rd. would need to be cut down to add a land for the on ramp. A sustainable design would reduce the

amount of paved area and return it to a natural state. This was one of the arguments Apple Campus 2 made for removing of their sprawling buildings and parking lots.

Flexibility Design: the project cannot be converted to sports fields etc.

Maintenance: the project is as high maintenance as possible.

http://www.cupertino.org/index.aspx?page=1275

The recycled water isn't cheap -- about $1,100 an acre-foot to produce, or roughly triple what it costs to buy water from the Delta, and this is a LOW ESTIMATE!!
http://www.mercurynews.com/science/ci_26160300/california-drought-san-joses-new-high-tech-water

http://sunnyvale.ca.gov/Portals/0/Sunnyvale/ESD/Water/Recycled%20Water%20Expansion%20Report/AppI-ExistingRecycledWaterCustomers.pdf

City of Sunnyvale - Feasibility Study for Recycled Water Expansion **Existing Recycled Water Customers**
Near-Term Demand Estimates

APN	Zoning	Owners	Site No	St Dir	St Name	St Type	Area (Acre)	Existing RW Demand (AFY)	Average Day Demand (gpd)
16539015	PF	Sunnyvale Golf Course	605		Macara	Av	3.5	183.9	164,100
		Moffet Field Golf Course					0.0	118.5	105,800
11005014	PF	Santa Clara County - Baylands Park	999		Caribbean	Dr	47.0	95.5	85,200
11039001	PF	Santa Clara County - Twin Creeks Sports Complex	0				18.3	54.5	48,600
11001025	MPI	Lockheed Missiles And Space Co Inc	1111		Lockheed Martin	Wy	204.3	29.5	26,300
11045002	MPT	Moffett Park Dr Llc	807		11th A	Av	1.0	25.5	22,800
		Moffet Field Site						25.4	22,700
11034025	MPT	Arden Realty Lp	1221		Crossman	Av	15.5	25.3	22,600
11035008	MPI	Amb Property Lp	155	E	Moffett Park	Dr	21.0	22.6	20,200
11002068	MPT	Menlo & Juniper Ntwrks Llc	1111		Lockheed Martin	Wy	77.0	21.3	19,000
11032027	MPT	Network Appliance Inc	1375		Crossman	Av	1.1	17.6	15,700
20519002	PF	Sunnyvale City Of - Fair Oaks Park	0		Britton	Av	1.3	17.4	15,600
11044008	MPI	Yahoo Inc	701		First	Av	24.3	17.2	15,300

Green roof prediction calcs:

80,369 gallons/day = 0.24664307759536294 acre feet/day x 365 days/yr = 90.02 acre feet per year

This means the green roof would be the 4th largest recycled water user behind the Sunnyvale Golf Course, Moffet Field Golf Courxe, and Baylands Park (47 acres).

Sunnyvale's discounted recycled water rates explained:

"All agencies surveyed offer recycled water at discounted rates compared to potable water charges. Recycled water rates generally ranged from roughly 45% to 95% of potable rates. • The City of Sunnyvale's current recycled water rates are set at 90% of potable rates for both irrigation and industrial accounts. Compared to other agencies, Sunnyvale offers one of the smallest recycled water discounts on a percentage basis.

Duration of Pricing Incentives To preserve future pricing flexibility, the City should not obligate itself to providing recycled water pricing discounts for perpetuity. For example, Redwood City's recycled water rate resolution only obligated the City to provide pricing discounts for a minimum of five years. Also, the City could opt to implement a higher discount for some time followed by a reduced discount (e.g. 40% discount for 5 years, then 25% discount thereafter). To date, the City has maintained the discounts for all recycled customers, regardless of when they originally connected.

The City may need to charge different wholesale rates to different potential customers depending on various factors such as each customer's alternative cost of water, infrastructure funding requirements, and other considerations of both the City and the potential wholesale customer. For example, an agency with a severe water supply shortage facing costly supplemental supply alternatives would have a substantially higher "willingness to pay" than an agency with less-expensive potable water sources. "

Sunnyvale charges $3.95/hcf convert to acre feet

435 hcf = 1 acre foot

$3.95/hcf x 435 hcf/acre foot = $1,718.25/acre foot

Vallco roof uses 90.02 acre-feet /year x $1,718.25/acre foot charged for recycled water = $154,677/year for recycled water for the roof.

Recycled rate as % of potable rate is 90%

Recycled Water Rate Survey - December 2012

	Potable Charge per hcf	Recycled Charge per hcf	Recycled Rate % of Potable Rate
City of Sunnyvale			
Agriculture & Institutional	$2.09	$1.88	90%
Landscape Irrigation	$4.38	$3.95	90%
City of Redwood City			
Existing Irrigation Accounts			
Tier 1: Up to 100% of water budget (most water sold in this tier)	$4.78	$3.59	75%
Tier 2: From 101% - 200% of water budget	$9.58	$3.59	37% (75% of Tier 1)

source: http://sunnyvale.ca.gov/Portals/0/Sunnyvale/ESD/Water/Recycled%20Water%20Expansion%20Report/AppF-TM_5RecycledWaterPricing.pdf

We are in a drought, the San Jose Water Company last year imposed rate increases on anyone going over their 2013 water use and requested a 30% reduction in water use. All of this expense and effort just to get out of making a park? Next imagine the earthquake calculations for this elevated structure with trees on it. The costs to secure the structure go up.

Sources : http://sunnyvale.ca.gov/Portals/0/Sunnyv...

http://sunnyvale.ca.gov/Portals/0/Sunnyv...
Environmental Study provided by revitalizevallco.com water use as estimated by the water co.

The following is from the Arborist report, of the Sand Hill/Vallco provided Environmental Study:

3.5 **Ion Content in Recycled Water / Standards**

Many municipalities such as San Jose and Palo Alto are using recycled water as a regular component of their City parks irrigation regime. However, this does come with known drawbacks. Coast redwoods are known to be sensitive to ion concentrations in soil water per the text referenced below[3]. The text notes that coast redwood has low tolerance of boron ion in recycled water. Ion sensitivity of coast redwood as related to other ions such as sodium, chloride, or ammonium was not specifically noted in the text. However, per the author's conversations with numerous city arborists and consulting arborists in the Bay Area, coast redwood appears to have low tolerance of specific ionic content in water in addition to boron ion. The following table derived from information in the below-referenced text provides some guidelines for total ion content of various ions in recycled water at levels that could be deemed "safe" for trees with low tolerance (high ion sensitivity), although this is only a guideline, and was published more than 10 years ago:

[3] Costello, Perry, Matheny, Henry, and Geisel (2003). *Abiotic Disorders of Landscape Plants: A Diagnostic Guide*. UC ANR Publication 3420. ANR Communications Services. Oakland, California.

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ASCA Registered Consulting Arborist #401 Qualified Tree Risk Assessor ISA Certified Arborist #WC-3172

Irrigation Water Ion	Type of Measurement	Content Range Considered "Safe"	Unsafe for Tree Species with Low Tolerance to Stated Ions
TDS Total Dissolved Solids	Mg/l	<450	450 to 2,000
Salinity	Mmhos/cm	<0.7	0.7 to 3.0
Boron	Mg/l	<0.5	0.5 to 1.0
Chloride (surface bubbler irrigation)	Mg/l	<140	140 to 300
Chloride (sprinkler irrigation)	Mg/l	<100	>100
Sodium (surface bubbler irrigation)	SAR	<3	3 to 9
Sodium (sprinkler irrigation)	Mg/l	<70	>70

Salinity tolerance of various tree species proposed in project tree palette by the landscape architect is noted in the reference shown in this report as citation #3. WLCA is in communication with the landscape architect staff to discuss salinity tolerance issues.

EXISTING REDWOODS

The new project does not propose to use recycled water for irrigation of the existing redwoods being retained as perimeter screening (personal communication 10/23/2015, property owner). Therefore, the ionic content of irrigation water appears (at the time of writing) to be an issue with new proposed tree plantings only.

USE OF RECYCLED WATER BLEND AND FLUSHING SEQUENCES

To reduce ion content in irrigation water to acceptable levels per the above matrix guidelines, recycled water with high ion content can be blended with standard municipal drinking water prior to running it through irrigation systems for surface application to trees. Per the property owner, this blending will be performed seasonally during non water-restriction periods in order to comply with local regulations regarding potable water use for landscapes during drought periods.

Another “trick” that can be performed to reduce ionic content remaining in the root zones of trees is to use recycled water for a number of irrigation cycles (e.g. 4 to 9 cycles), then “flush” the root

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zones by using a 5th or 10th irrigation cycle of 100% municipal drinking water (anecdotal reference). **This would require that a very detailed record of irrigation be maintained by a groundsperson on site, to record exactly when recycled water and drinking water was applied to very specific landscape zones. Both recycled water and drinking water would need to be available side by side as irrigation system inputs with manual levers that would be operated by the groundsperson.**

OAK TREES BEING INSTALLED

Per discussions with arborist Dave Muffly who is an expert in oak tree selection and cultivation, oak species being installed at the project should be provided with municipal drinking water as the irrigation water source, without any blending with recycled water. This is recommended to avoid potential problems with ion sensitivity by the oaks. Mr. Muffly notes that an adjacent project will not use recycled water for irrigation of the oaks (this project is also within the jurisdiction of City of Cupertino, and has recycled water piping that will be used for irrigation of non-oak landscape zones).

As regards the project roof planting area where many oak species will be installed, we may need to develop a special dual piping system which will allow for recycled water and standard drinking water sources to be piped up separately. This would allow the two water sources to be applied in an alternating manner and/or blended in a tank prior to being applied to sensitive species such as the oaks and fruit bearing orchard trees, to reduce the overall ionic content being applied to the landscape over time.

WEEPING WILLOW AND FREMONT COTTONWOOD AT ROOF DRAINAGE SWALES

The Abiotic Disorders text (citation #3) noted above in this report contains a list of various tree species along with referenced scientific studies during which salinity and boron tolerance was determined for certain species. Per this list, Fremont cottonwood, proposed to be installed at The Hills in swales where runoff collection will occur, exhibit “moderate” to “high” tolerance of salinity (i.e. ionic concentrations) in recycled water, which would suggest that they can tolerate soil moisture derived from runoff water that may contain higher than normal ionic concentration. Weeping willow, also proposed by the project team for inclusion in drainage runoff swales at our site, also appears to exhibit “moderate” to “high” tolerance of ionic concentration in irrigation water, which also suggests tolerance to runoff water as the main source of their root zone soil moisture. Even so, WLCA suggests considering removal of these two species from the proposed plant palette list, given that they require heavy irrigation year round to maintain vigor.

RECYCLED WATER EFFECTS ON FRUIT-BEARING ORCHARD TREES

Per the text referenced in citation #3 in this report, **fruit-bearing tree species proposed by the team for the rooftop orchard which will be for human consumption are noted in the text as**

exhibiting "low" relative tolerance to ionic content in recycled water used for irrigation. Given that fruit bearing orchard trees generally require heavy irrigation, this is of concern if recycled water is going to be used on the project's greenroof where the orchard areas will be located. As noted above in this section of the report, blending recycled water with municipal drinking water can bring down ionic concentration to levels below the safe thresholds noted above in the matrix.

Flushing the tree root zones by use of 100% drinking water on a periodic basis may also be a viable method of reducing ionic concentration buildup in the root zones of the trees, such as the example WLCA noted of 4 to 9 irrigation cycles using recycled water, followed by a 5th or a 10th irrigation cycle using 100% municipal drinking water (anecdotal reference).

Site Address: North Wolfe Road, Cupertino, CA Version: 2/11/2016

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Per the author's recent conversation with a Northern California soil scientist who specializes in orchard soils, the inability for fruit trees such as cherry, apricot and apple to tolerate ion content in recycled water used for irrigation appears to be verified. Blending and/or other dilution is warranted.

Again, use of a **dual piping system to bring up both standard drinking water and recycled water sources to the greenroof** may be able to solve the problem of ionic content in recycled water being applied to the orchard areas, as it will allow us to blend the two sources of water and/or apply them to the landscape in an alternating manner to flush salts through the soil.

WLCA suspects that over time, municipal recycled water may become of increasingly higher quality in terms of ionic content being reduced to below the low-tolerance sensitivity threshold of 0.7 Mmhos/cm salinity. Refer to the ionic content table on page 14 above for more information.

(P 757-758 Environmental Study)

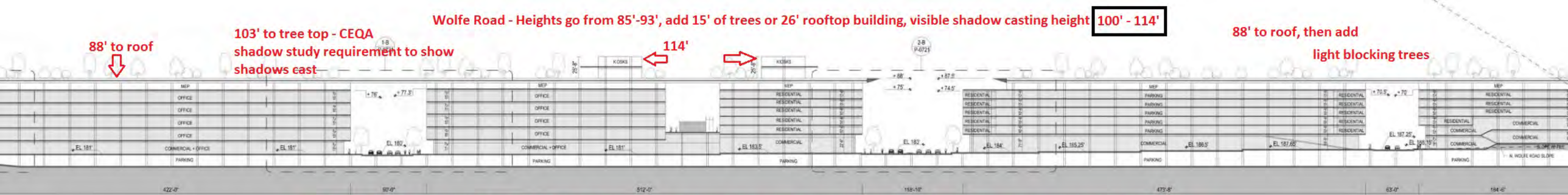
Wolfe Road - Heights go from 85'-93', add 15' of trees or 26' rooftop building, visible shadow casting height 100' - 114'

88' to roof

103' to tree top - CEQA shadow study requirement to show shadows cast

114'

88' to roof, then add light blocking trees



Wolfe Road will be cast in shadow from 100'-114' structure and trees, then partially covered with a roof - we did not give permission to block the sun.

From:	Beth Ebben
To:	Piu Ghosh; Catarina Kidd; "kweis@davidjpowers.com"
Subject:	FW: Vallco Shopping District NOP Comments for EIR
Date:	Monday, March 12, 2018 10:07:05 AM
Attachments:	ATT00001.htm Comments for Vallco Shopping District Specific Plan EIR.pdf ATT00002.htm GG - Applicability of SB 50.pdf ATT00003.htm

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From the Department's general mailbox:

From: Lauren Sapudar
Sent: Monday, March 12, 2018 8:52 AM
To: Beth Ebben <BethE@cupertino.org>
Subject: FW: Vallco Shopping District NOP Comments for EIR

From: Kitty Moore [redacted]
Sent: Sunday, March 11, 2018 12:40 PM
To: [redacted]; Darcy Paul <DPaul@cupertino.org>
Subject: Fwd: Vallco Shopping District NOP Comments for EIR

Hi Mayor Paul and Council Member Scharf,

Thank you both for attending the forum in such a dignified way!

I'm attaching my EIR comments which again start with an argument to halt the EIR process.

I left the forum early and never asked any questions. I'm very concerned about SFYIMBY and have seen NewYorkYIMBY helped with Hudson Yards in NY. That project resulted in 6 Million SF office (20,000 jobs) and 5,000 residential units. And reviewing Stevens Creek Urban Village they supported, showed the city ultimately had no definitive language for housing requirements in any land use definitions. The language was all soft.

Thank you again for your composure!

Best regards,

Kitty Moore

Begin forwarded message:

From: Kitty Moore <[redacted]>

Date: March 11, 2018 at 12:10:45 PM PDT
To: planning@cupertino.org
Subject: Vallco Shopping District NOP Comments for EIR

Greetings, please provide a receipt of the following, Thanks!

All files are grouped together here for submission, please include the attachments:

https://files.acrobat.com/a/preview/c55c745c-8969-40ca-b938-0484c4c57b73

https://files.acrobat.com/a/preview/c9a4e2e5-03d7-4cd1-8498-578c252ea36d

https://files.acrobat.com/a/preview/9193f697-1b69-475c-8195-a5daa4d1281e

https://files.acrobat.com/a/preview/ebb3d39b-caf6-4ef9-9953-9ca9dca007ca

https://files.acrobat.com/a/preview/dbd1ed13-febe-4173-8c42-b91fa2388fb8

https://files.acrobat.com/a/preview/1f515af8-4b65-49db-a1c7-e4e790b4943e

https://files.acrobat.com/a/preview/55ae774a-8507-407d-be9d-7b3af04c7a9e

https://files.acrobat.com/a/preview/647d3f95-4ce1-4915-8c12-8c07aad793d3

https://files.acrobat.com/a/preview/ff193754-582b-4e64-a459-d9e056e97fbe

This is the Hills at Vallco Environmental Study they did: https://files.acrobat.com/a/preview/6c96f0da-509c-4073-921e-48866a72951f

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Total Control Panel Login

To: dpaul@cupertino.org Remove this sender from my allow list

From: [redacted]

You received this message because the sender is on your allow list.

Sent via email Monday 3/12/2018 4:10 p.m. Lily and Peter Wilson

Dear City of Cupertino Planning Department,

My husband and I have been Cupertino residents for over 15 years, first as renters and now as home owners. We are both employed within the City of Cupertino, and we hope to be able to retire here.

For these reasons we support the right for Cupertino to limit its growth and remain a haven from big city urbanization and crowded living. However, a Vallco plan with a balance of office, residential, retail space as well as public amenities – like a non-chlorinated indoor swimming pool to augment the bowling alley and ice rink – is also very reasonable and should be approved as swiftly as possible.

http://www.poolsupplyworld.com/blog/five-chlorine-alternatives-pool-owners/

Major housing and office developments should be built near mass transportation hubs, not everywhere. Bigger cities like San Jose, and those closer to mass transportation like Mountain View and Sunnyvale, should be the ones building housing and office space at a larger scale. But the Bay Area should also accommodate and allow smaller towns to remain small. We shouldn't all be forced to live in heavily populated cities, nor should the American dream of owning a house with a yard be terminated for all. Cupertino should be allowed to maintain its small village-like parameters, but it needs to better develop its pedestrian and bicycle infrastructure.

We don't have enough sidewalks! Better sidewalks and street lights should be built on Beardon Dr. in order to connect the residential areas to the shopping areas, which includes Target and Whole Foods. Specifically for Vallco, the area coming from N. Wolfe Rd across 280 should be improved for pedestrians and cyclists, and an opening along the wall on Amherst Dr. for pedestrian and bicycle traffic should be added. These are a few examples, but the whole City really needs to be better connected for pedestrians and cyclists.

Cupertino must correct these fundamental infrastructure problems before dealing with any others. Without sidewalks, or a safe passage across 280 and with a wall surrounding Vallco on one side, you discourage community living and instead encourage car traffic and the problems of congestion, pollution and safety that then arise. This is why after Vallco is approved, no new major developments that increase population or traffic should be supported.

The best way Cupertino can be a good neighbor is for it to become a fully walkable city: trails, open spaces, parks, safe sidewalks and bridges for pedestrians crossing heavily trafficked roads should be built before any more growth. By becoming a pedestrian and bicycle friendly city, Cupertino can help reduce car pollution, car traffic and car accidents, thereby contributing positively to the Bay Area landscape.

The more accessible to pedestrian and bike traffic that work and shopping become, the more part of the community we all will become. Having safe pedestrian and bicycle access from all directions will allow retail centers and office parks to be natural destinations for people in nearby neighborhoods, thereby encouraging more people to live and work in the same community.

The main value of keeping Cupertino small is to create a truly walkable city. It's halfway there, but it can't get there by allowing massive growth, and it won't get there by segregating the retail and office areas from pedestrians and cyclists coming from the residential areas.

A well integrated, multi-use, mix-use Vallco that is easily accessible to pedestrians and cyclists, with attractions for Cupertino residents like an indoor swimming pool, will be a great asset to Cupertino.

Sincerely,

Lily and Peter Wilson
Cupertino, CA

From: Andrew Maxwell [redacted]
Sent: Thursday, February 22, 2018 11:50 PM
To: City of Cupertino Planning Dept. <planning@cupertino.org<mailto:planning@cupertino.org>>
Subject: Vallco EIR scoping meeting response

I live in Santa Clara and go to school in Cupertino, often bussing and biking right down Steven's Creek, so I've followed the development of The Hills at Vallco with considerable interest. When it was first announced, I was impressed by the design but more or less ambivalent - I'm not much of a shopper, and I'd rather bike in the hills than on the roof of a mall, no matter how green. However, as the project progressed I began to appreciate how it ties into a deeper conflict over what our community should become.

Everyone wants this space, and the rest of Cupertino, to form the backdrop for their ideal life. One vision has Cupertino as a quiet suburban town, with minimal traffic, good roads, and strong retail. Another group wants to see trendy, dense mixed-use spaces where people can live, work, and play without having to travel more than a few blocks. Some see cars as an essential part of their lifestyle, others think cars are dinosaurs to be replaced by public transit, bikes, e-bikes, monorails, or self-flying cars. (This is Silicon Valley.)

As a result, there's always going to be some contention over what Vallco should look like. However, the foremost priority when deciding what to do with this space should be solving problems while not creating new ones. First, this means living space, and lots of it. Home prices around the Bay Area are a big problem. When even Apple and Google employees are having trouble affording housing, you know there's a problem. At the EIR scoping meeting, I saw 2/3 housing, 1/3 other stuff listed as an option, and that sounds like about the right balance. Second, in order to avoid creating (or, in the case of traffic, exacerbating) existing problems, we need to make sure not to neglect infrastructure. One option I think is underexplored is improving public transit. If Cupertino (and Silicon Valley in general) had a better bus system, more people would use it - and I don't think it would need to be very much better to have lots more people willing to use it.

Thanks, Andrew Maxwell

Eileen P. Mclaughlin

[redacted] [redacted]

March 12, 2018 *Via Email*

Piu Ghosh, Principal Planner
Community Development Department
City of Cupertino
10300 Torre Avenue
Cupertino, CA 95014
Via Email to planning@cupertino.org

RE: Scoping Comments for the Preparation of the DEIR for the Vallco Special Area Specific Plan

Dear Ms. Ghosh:

This letter provides comments submitted to aid Cupertino (City) in its work defining the content and analysis of the Draft Environmental Impact Report (DEIR) of the Vallco Special Area Specific Plan (Plan).

I am a long-term resident of a neighborhood adjoining Cupertino and live just one and a half miles from the Project Boundary, just off Miller Avenue. My comments arise from resident experience and also on substantive experience commenting to many jurisdictions and agencies regarding California Environmental Quality Act (CEQA) and regulatory documents. These activities are done as an advocate member of a volunteer, grass-roots organization, Citizens Committee to Complete the Refuge.

But to be clear, in this letter *I speak solely for myself.* In public comment at the City's scoping meeting on 02/22/2018, I mentioned some topics that needed attention. I expand and add to those comments here.

CEQA category of this Plan EIR: A "Specific" Plan EIR is a "Program" EIR, an information basis for tiering of future, project-specific CEQA analysis as may be needed prior to any build out within the Project Boundaries.[1] The degree of environmental review and of mitigation required of those documents is set in good part by the quality, content and project standards (mitigations) of the program EIR. As such, a well-prepared Program EIR will provide environmental guidelines that must be met in tiered projects. Doing so may also reduce or streamline tiered CEQA documents, pending objectives and proposals of those individual projects. ***I am hopeful that the City both values and invests in production of a fully comprehensive program EIR***

Purpose of an EIR: This Plan EIR is intended to inform.[2] Failure to meet that objective can be caused by poorly-organized documents and lack of clarity such as: overuse of technical terms, acronyms or jargon; omission of clarifying charts or graphics; omission of relevant information (description facts, impacts or analysis). *As a program EIR, it is anticipated that it will be a lengthy document, making it even more important that attention is placed on avoiding these pitfalls.* ***I hope that the Project EIR will be one that adequately informs.***

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[1] CEQA Guidelines §15385, Tiering: "(a) From a general plan, policy, or program EIR to a program, plan, or policy EIR of lesser scope or to a site-specific EIR;"

[2] CEQA Guidelines §15002 General Concepts: "(a) Basic Purposes of CEQA. The basic purposes of CEQA are to: (1) Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities."

Regional Impacts of the EIR: The considerations of an EIR don't end at the Project Boundary. The location of this project lies in a City panhandle defined by major roadways and nearby adjacency with the cities of San Jose, Sunnyvale and Santa Clara. The City of Saratoga lies just beyond San Jose's panhandle, ~3 miles away. It is important that any impact on the region be adequately considered and mitigated.[3] Toward that end and because major regional impacts to traffic and transportation are anticipated, ***I recommend that Figure 2, Vicinity Map in the Notice of Preparation (NOP) be replaced in the EIR with a vicinity map that is broadened to include and acknowledge the key transportation corridor and municipal jurisdictions.***

Alternatives of the EIR: For this Plan EIR, the City must consider a reasonable range of alternatives[4] such that it is possible for decision makers and the public to understand the comparative merits of each alternative. In reference to alternatives other than "no action" (leaving the Project site as is) and given that (1) it is not necessary for each alternative to attain all of the objectives of the EIR but rather to provide adequate comparison of impacts and (2) this Project has substantial complexity, ***I recommend that the City provide three Alternatives.*** The presentation at the public meeting included an Alternative of full build-out per the City's General Plan (GP) stipulations. This EIR, through impact analysis, gives the City the opportunity to test those GP stipulations through variations in Alternatives. The other two Alternatives can be determined from development values provided from public comment during scoping. As I suggested at my public comment, Alternatives could be versions of reduced density and/or of reapportioned land use.

For Program EIRs, additional alternatives are particularly valuable. Within the document, cumulative tables showing side-by-side comparison for all significant impacts for each of the Alternatives is an effective, informative tool. I have seen multiple occasions when doing so enabled Lead Agencies, at the time of findings of the Final EIR, to blend the most beneficial characteristics (identified through comparison) into a new, composite, Final Alternative.

Service to Regional Transit: Admittedly, I have not at this time read applicable sections of the City General Plan or other City code so cannot know if the City has already established commitments to integrate its actions with regional transit services. Nonetheless, I was disappointed that the Project Description in the NOP lacked any mention of public transit services that must be provided by the Plan.

Along Wolfe Road and for decades, the existing Plan site includes substantial roadside cutouts serving mass transit. The Plan site immediately adjoins a major freeway and a major regional roadway. Existing

[3] CEQA Guidelines §15125, Environmental Setting: (c) Knowledge of the regional setting is critical to the assessment of environmental impacts. Special emphasis should be placed on environmental resources that are rare or unique to that region and would be affected by the project. The EIR must demonstrate that the significant environmental impacts of the proposed project were adequately investigated and discussed and it must permit the significant effects of the project to be considered in the full environmental context.

[4] CEQA Guidelines §15126.6. Consideration and Discussion of Alternatives to the Proposed Project: (a) Alternatives to the Proposed Project. An EIR shall describe a range of reasonable alternativesto the project, or to the location of the project, which would feasibly attain most of the basicobjectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.

transit services serve major bus routes. Existing conditions include the dramatic expansion of Apple and its traffic, just on the other side of the freeway, and connecting to this site along Vallco Parkway/Tantau Avenue and via Wolfe Road.

I anticipate that there will be an Alternative that represents full build-out per GP LU-1 that would allow extraordinary alteration of the types and density of uses of the site potentially inclusive of office, entertainment, hotel and residential. Every one of those new or expanded uses would substantially impact traffic and, for impacts of greenhouse gases, air quality, and traffic congestion, trigger the need for mass transit mitigations.

As we who live locally know too well, traffic congestion is irreparably getting worse, such that it also is realistic to anticipate that short-sighted actions of today will have consequences all too soon. Such a situation is reinforced in CEQA's Mandatory Findings of Significance "…potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals."[5]

Given local transportation demand, known and proposed, it is helpful to observe that the location of this panhandle Project is ideal for incorporation and allocation of land for service as an expanded Transit Hub, potentially serving multiple forms of mass transit. For that reason, ***I recommend that the preparation of the EIR include consultation with VTA and impacted municipalities such that the Final Alternative and its mitigations accommodate provision of this Project site as an expanded transit hub.***

Traffic analysis of the EIR: At the public scoping meeting, there was poster with a map of the region showing locations of intersections that would be included in traffic studies. It struck me as not understandable why the intersection of Miller Avenue and Prospect Road was not included for study. Given my long term residency in this area, I find this to be a significant omission. Traffic is significant between that location and U.S. Route 280. Further, Prospect is a major roadway interconnecting with other major roadways. Will increased traffic on Miller Avenue/Wolfe Road impact Prospect Road traffic? ***I ask that the Miller/Prospect intersection be included in traffic studies.***

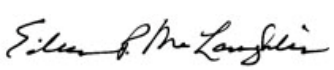
Biological Resource analysis of the EIR: As an environmental advocate, I am well aware of the devastating impacts that poorly planned buildings and land management have on birds, whether they are year-round resident, seasonal nesters or on migration. For that reason, both bird-safe design of buildings and on-site predator management should be considered and incorporated as mitigations. Fortunately, the Santa Clara Valley Audubon Society has substantial expertise on bird safe design and should be consulted. **I recommend that mitigation should include a management plan that will limit the presence of mammalian pests and predators (rats, mice, raccoons, skunks, opossums, roaming cats) including control of food waste, avoiding creating locations where pests and predators might hide or den and outlawing feeding of any mammals outdoors. Pest management needs to require that no poisons be used for control, given that birds may be poisoned by consuming dying mammals.**

[5] CEQA Guidelines §15065, Mandatory Findings of Significance, (a)(2),(3)&(4) : "(a) A lead agency shall find that a project may have a significant effect on the environment andthereby require an EIR to be prepared for the project where there is substantial evidence, in light of the whole record, that any of the following conditions may occur:" "(2) The project has the potential to achieve short-term environmental goals to the disadvantageof long-term environmental goals. (3) The project has possible environmental effects that are individually limited but cumulatively considerable. "Cumulatively considerable" means that the incremental effectsof an individual project are significant when viewed in connection with the effects of past projects,the effects of other current projects, and the effects of probable future projects. (4) The environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly."

Finally, a recommendation to consider in any Alternative that includes residential units: I suggest that land be set aside for community gardens and space be retained for use for the Farmer's Market. As it appears that residential units will be, by type, apartments, adequate garden space would be a welcome amenity and consistent with encouraging local, healthy, family-production of vegetables. Similarly, returning the Farmer's Market to this site, perhaps in a Vallco Commons area, would be a valuable benefit to both apartment dwellers and employees of site businesses and easily accessible by residents of surrounding neighborhoods.

It is my hope that my comments will be applied in developing a substantive and informative Plan through the EIR. Thank you for your considerations toward that end.

Sincerely,



Eileen P. McLaughlin

Michael Mar Sent via email Monday 3/12/2018 3:12 p.m.

Hi,

I made the last comment at the EIR spec meeting, but I wanted to email my comment as well.

There is an often cited statistics that only 10% of Cupertino residents work in Cupertino. I believe that stat is true, but it's based on the historical construction of single family homes in Cupertino. At Vallco, the housing would likely be higher density housing similar to the handful of condos and apartments in the city. As such, I wanted to provide my personal observations as someone who lives in a condo in Cupertino. In my condo complex, nearly 80% of my neighbors that I've spoken to work in Cupertino. Specifically, 7 out of the 9 neighbors whose employment I was aware of worked at either Apple, Kaiser, Seagate, went to De Anza, or was a local teacher.

I cannot say whether or not my anecdotal observation is indicative of a wider trend, but it's so drastically different from the 10% stat that I think it would be a good idea to consider the possibility that higher density housing may have a better percentage of residents who work in Cupertino. **Could the EIR study the working demographics of residents living in the higher density housing in Cupertino that are more indicative of the housing that would exist at Vallco?** If percentages of residents working in Cupertino are high enough, it would make housing at Vallco much more attractive as it would help reduce traffic from workers commuting into Cupertino.

Thanks,
Michael Mar
[redacted]
Cupertino, CA

MORRISON | FOERSTER

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March 9, 2018

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MImwalle@mofo.com

Ms. Piu Ghosh, Principal Planner
City of Cupertino
10300 Torre Avenue
Cupertino, CA 95014
piug@cupertino.org

Re: Notice of Preparation (NOP): Vallco Special Area Specific Plan Environmental Impact Report, City File Number EA-2017-05

Dear Ms. Ghosh:

This letter is provided to the City on behalf of our client, Sand Hill Property Company (SHPCO) in response to the City's February 9, 2018 Notice of Preparation (NOP) for the Vallco Special Area Specific Plan Draft Environmental Impact Report (EIR). As owners of the vast majority of the Special Area, we welcome the opportunity to comment on the scope and content of this EIR.

We believe the background information and recommendations provided in this letter will assist the city and its consultants to prepare a more comprehensive and defensible CEQA document for the Vallco Special Area. The City has the opportunity to build on the extensive CEQA studies and analysis for this critical site when it prepared, considered and adopted its Cupertino General Plan Community Vision 2015-2040 in 2015.

Recognize Vallco's Importance as a Priority Development Area and Transit Priority Area

We appreciate that the Background section of the NOP mentions that the Vallco Special Area is identified as a Priority Housing Element Site in the City's General Plan. Given the unique size and opportunities presented by the Special Area, we request that the EIR identify and analyze the Vallco site as within the Plan Bay Area 2040's potential Priority Development Area (PDA) and Transit Priority Area (TPA).

The public and City decision-makers should be provided with EIR analysis reflecting the regional importance and context of the Vallco plan. As both a PDA and TPA, Vallco is identified as an area appropriate for additional compact development and focused growth

with the investment potential to provide homes and create jobs. The Vallco Special Area Specific Plan analysis will more accurately track with CEQA's goals and emphasis on advancing the State's transit oriented, environmental sustainability and climate change goals if the EIR addresses impacts in the context of how a large mixed use opportunity site with high-quality transportation access may be able to relieve pressure on the South Bay's regional housing crisis.

The EIR Should Include a Realistic CEQA Baseline to More Accurately Reflect Vallco's Recent Occupancy Rates

To provide more meaningful analysis to the City's decision-makers and the public, we recommend that the EIR utilize recent historic mall occupancy rates, rather than the current occupancy, as the CEQA baseline condition for the EIR. To do otherwise risks overstating and misrepresenting the incremental new impacts of a mixed use redevelopment of the site with an existing outmoded shopping center. CEQA encourages accurate analysis and it is critical that existing developed infill sites not be equated with vacant or greenfield site.

For many years, the Vallco Shopping Mall (the "Mall") struggled to compete with contemporary regional malls. During the five-year period preceding 2014, the Mall had an occupancy rate of approximately 82 percent. Since 2015, following SHPCO's acquisition of the properties comprising the Vallco site, occupancy of the Mall shrank considerably to approximately 24 percent (largely the result of the post-sale vacancies by the 3 owner-occupied department stores, Macy's, JCPenney, and Sears). Without the department stores in occupancy, many tenants at the Vallco Shopping Mall terminated their leases, and potential tenants and SHPCO have understandably been unwilling to enter leases at Vallco given its uncertain future.

A central purpose of CEQA is to inform government decision-makers and the public about the potential environmental effects of proposed projects. The selection of an accurate baseline is essential for the informed study of a project's environmental effects. The extremely low occupancy rate that currently exists at the Vallco Shopping Mall is an anomaly and does not reflect the recent historical use of the site as a functioning shopping center as recently as five years ago.

In a recent CEQA baseline case that presents strikingly similar facts to the situation here, an appellate court upheld a city's decision to use a shopping mall's historic occupancy rate as the baseline in an EIR for the redevelopment of the shopping mall. In *North County Advocates v. City of Carlsbad*, 241 Cal.App.4th 94 (2015) (*North County Advocates)*, the court found that substantial evidence supported the city's decision because the chosen baseline was based on recent historical use and was consistent with the mall owner's right to fully occupy the existing mall without discretionary approvals. Rejecting arguments that the city must use the then-existing low occupancy of the shopping mall for baseline conditions,

the court noted that fluctuating occupancy is the "nature of a shopping center" and held that it was proper to use a historic baseline to account for fluctuations. See *North County Advocates* at 105-6.

Using a snapshot alone of the currently abnormally low occupancy at the Vallco Shopping Mall as an EIR baseline would not accurately represent the infill Project's environmental impacts, and could confuse City decision-makers and the public.

The EIR Should Analyze High Residential Density Alternatives

We request that the EIR analyze alternatives that account for higher residential densities at the site. Cupertino's General Plan provides for a maximum residential density of 35 units per acre in the Vallco Shopping District Special Area. Based on the Special Area's size of 58.1 acres, the General Plan allows for 2,033 units. When including a maximum density bonus allocation under Cupertino's Density Bonus Ordinance, up to 2,745 residential units are allowed in the Special Area. Even if the 2.1 acre hotel portion is excluded, that yields a unit count of 1,960 residential units and 2,646 residential units with a density bonus. The EIR should address this possibility so that the decision-makers and the public have the necessary information when weighing various alternatives.

Although the General Plan allocates 389 residential units to the Special Area as a "priority housing site," it does not cap residential development in the Special Area at this number of units. In fact, the Housing Element contemplates a "minimum density of 20 units per acre" in the Vallco Shopping District, which would allow for a *minimum* density of 1,162 units, well over the 389 units allocated to the area as a priority housing site. Accordingly, we request that the scope of the EIR include alternatives accounting for higher density housing at the site. We are encouraged by indications that the City plans to include a "General Plan build-out" alternative that includes the maximum number of residential units allowed under the General Plan.

Thank you in advance for your consideration of these few recommendations.

[*Signature page follows*]

Sincerely,

Miles H. Imwalle

CC: Randolph Hom (randolphh@cupertino.org)
David Brandt (manager@cupertino.org)
Aarti Shrivastava (aartis@cupertino.org)
Reed Moulds (rmoulds@shpco.com)
Steve Lynch (slynch@shpco.com)
David Gold (dgold@mofo.com)

From: Grace Schmidt
To: Aarti Shrivastava; Piu Ghosh; Catarina Kidd; Beth Ebben
Subject: FW: 2 Mil SFT Office Space Clarification at Vallco.
Date: Wednesday, February 14, 2018 11:29:48 AM

From: Munisekar [redacted]
Sent: Wednesday, February 14, 2018 11:21 AM
To: Darcy Paul <DPaul@cupertino.org>; City Council <CityCouncil@cupertino.org>; City Clerk <CityClerk@cupertino.org>
Subject: 2 Mil SFT Office Space Clarification at Vallco.

Dear Mayor Darcy Paul & City Council,

It is my understanding that Vallco Shopping District was given provisional allocations of height and density in Dec 4, 2014 City Council meeting held publicly. These provisional allocations were contingent upon having an approved specific plan for this site by May 2018; otherwise, they were to expire automatically.

Now, I am hearing through some sources that these provisional allocations somehow became entitlements granted to this site. if that were true, I am really shocked about this silent goal change without public input.

When was any public hearings held to make this provisional allocation to real entitlements? Please clarify it.

If this silent goal change was done without public input, I request that the people involved in this scandal to be summarily dismissed ASAP.

Please make this email part of public records.

Respectfully,

Muni Madhdhipatla
Cupertino Resident of 7 years.

Total Control Panel Login

To: cityclerk@cupertino.org
From: [redacted]

Message Score: 1
My Spam Blocking Level: High

Block this sender
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High (60): Pass
Medium (75): Pass
Low (90): Pass

This message was delivered because the content filter score did not exceed your filter level.

From: Peggy Griffin [redacted]
Sent: Monday, March 12, 2018 3:25 PM
To: planning@cuperitno.org
Cc: City Clerk <CityClerk@cupertino.org>
Subject: Vallco Specific Plan EIR Scoping Comments

Please study the following:

Impacts of NOISE

1. Noise at different times of day, different days of the week/weekend and different seasons i.e. summer, fall, Christmas, etc.
2. Noise levels on the property and at different locations and different uses.
3. Noise levels to all the surrounding areas due to traffic and project site uses.
4. Concentration of noise levels distributed due to wind to certain areas.
5. Noise increase due to removal of large trees
6. Noise impacts due to replacing large trees with smaller trees
7. Noise impacts due to replacing large trees with new trees

Emergency services

1. Study the impact on emergency service arrival (fire, ambulance, police) to
    a. both project location sites and homes on either side of the project.
    b. Time it takes for services to reach areas bordering the project i.e. does the project create a road block, preventing services from reaching people?
2. Load increase to emergency services.

Utilities

1. Electricity
    a. amount of additional power required, where those lines would need to be placed and the impact of those additional lines or increased voltage to the public on and off the property
    b. Increase of electromagnetic radiation to people along the power lines as a result of increased voltage
    c. Impact of electromagnetic radiation on TV reception (some people actually still get TV over the air!)
2. Phone
    a. Increased cell tower requirements for all cell phone providers
    b. Impacts on service during peak and non-peak periods
3. Internet
    a. Impact on internet bandwidth capacity during peak and off peak periods

Air Quality

1. Impact of additional traffic and land uses on air quality. This should include Stevens Creek Blvd, Wolfe, I-280, Lawrence Expressway. Homes all along major roads get coated with black particles.
2. Impact of air pollution to surrounding areas distributed by prevailing winds.
3. Impact of removal of large trees to air quality
4. Impact of replacing large trees with small trees to air quality

AESTHETICS

1. The streets along Wolfe, Homestead, Tantau and Stevens Creek are lined with large shade trees that give the area a look and feel people enjoy. It also provides shade, reduces traffic noise and helps counter pollution. The Vallco specific area also is lined with large trees. This area is known for its large trees.
    a. Study the impacts of removing any large trees.
    b. Study the impacts of replacing any large trees with smaller trees.
2. Impacts of building heights and mass on the current views of the hills both from the property and from the surrounding area.
3. Impacts of building heights and mass to blend in with neighboring homes and the Market Place area.

Sincerely,
Peggy Griffin

From: Peggy Griffin [redacted]
Sent: Monday, March 12, 2018 4:34 PM
To: planning@cuperitno.org
Cc: City Clerk <CityClerk@cupertino.org>
Subject: Vallco Specific Plan EIR Scoping Comments

1) traffic analysis - EIR should analyze using both the current level of service methodology currently in use and the vehicle miles travelled methodology that has been released in draft form by the Office of Planning and Research. If either approach indicates significant impacts, the impacts should be considered significant.

2) water supply - EIR should analyze increased water demand and whether it will increase stress on Santa Clara Valley Water District, the local water wholesaler, or the State Water Project, the eventual source of SCVWD's water. How will water for the green roof park area be provided? How will it be stored, treated?

3) What will be the electrical and gas supply for the new project?
   a) How much will the project increase greenhouse gas generation?
   b) How will greenhouse gas generation be mitigated?
4) What will be the growth-inducing impact of the project?
   a) Will the project result in increasing the pressure on the local housing market, resulting in increased housing sale and rental prices and forcing lower income households out of the area, increasing their commute distances to reach jobs in the area?
5) What will be the cumulative impact of this project plus other projects in and around Cupertino, including those in San Jose, Sunnyvale and Santa Clara?

Peggy Griffin

From:	City of Cupertino Planning Dept.
To:	Piu Ghosh; Catarina Kidd; "kweis@davidjpowers.com"
Subject:	FW: Vallco Specific Plan EIR Scoping Comments
Date:	Monday, March 12, 2018 5:08:01 PM
Attachments:	image001.png image002.png image003.png image004.png 2015-11-12 From Jason Holder.pdf

From the Planning Department's general mailbox:

From: Peggy Griffin [redacted]
Sent: Monday, March 12, 2018 4:36 PM
To: City of Cupertino Planning Dept. <planning@cupertino.org>
Subject: FW: Vallco Specific Plan EIR Scoping Comments

From: Peggy Griffin [redacted]
Sent: Monday, March 12, 2018 4:05 PM
To: planning@cuperitno.org
Cc: 'City Clerk'
Subject: Vallco Specific Plan EIR Scoping Comments

Please study the following items below. It is copied from a letter sent to the City on 11-12-2015 for the Hills-at-Vallco EIR which I have included for your reference. These items still apply to this current EIR.

Peggy Griffin

1. The DEIR must adequately analyze the Project's potentially significant impacts to City transportation, recreation, and school facilities, consider secondary impacts, and analyze a reasonable range of Project alternatives.

The Draft Program EIR must include thorough analysis of the following potentially significant environmental impacts that could affect the City and its residents:

1) Impacts of conversion of non-residential development intensity to residential uses;[2]

2) Impacts to water supplies caused by the Project directly, as well as cumulative impacts to water supplies caused by this Project together with other past, present, and probable future projects;

3) Weekday and peak traffic impacts on all surrounding roads and intersections;[3]

4) Weekend and off-peak traffic impacts on Stevens Creek Boulevard and North Wolfe Road and impacts on recreation facilities including City parks as a result of additional residential, commercial, and retail uses;

5) Secondary impacts caused by increased traffic, including air quality impacts and increased greenhouse gas (GHG) emissions;

6) Impacts to schools and other public services caused by the influx of new residents, including but not limited to:

   - The direct impacts on school facilities that this Project will cause,[4]

   - The potential to open the wall separating the Project site from the neighboring community (at (Merritt Drive, Amhurst Drive, or Wheaton Drive) to provide a "safe route to school," and

   - Cumulative impacts to schools caused by this Project in combination with other projects in the Sunnyvale, Santa Clara, San Jose area, including traffic impacts caused by assignment to overflow schools;[5]

7) Construction-period and operational impacts to the large double row of Ash trees along Stevens Creek Blvd. and along Wolfe Road and any other protected trees;[6]

8) Public service impacts to neighboring residents, including any reduced police, fire, or ambulance services or increased response times;[7]

10) Aesthetic and visual impacts to neighboring communities, including but not limited to:

- Obstructed views and increased shadows caused by the Project's tall buildings, and
- Nighttime light pollution;

11) Loss of solar access to areas beneath green roof and the alternative of using Project roofs for solar energy generation;

12) The Project's direct and indirect secondary effects associated with the increase in traffic and recreation impacts to the City including but not limited to increased demand for limited parking, increased demand for police, fire and other City services, and the related strains on the City's limited facilities and resources;

13) Impacts stemming from additional office development and displaced retail uses, including, but not limited to:

- Growth-inducing impacts,
- Displacement of lower income residents (and increased traffic caused by such displacement and the associated increase in commuting),
- Increased travel to other more distant retail locations,
- Increased traffic to freeways and local streets caused by large buses ferrying employees to new office developments,
- and potential inconsistencies with the goals of SB 375;

14) Cumulative weekday and weekend traffic impacts and cumulative direct and secondary impacts to parking, police, fire and other City services as a result of past, proposed, and approved uses within the City; and

15) Consideration of a reasonable range of Project alternatives, including:

- A revitalized mall that includes minimal or no physical changes to the existing Vallco Shopping Mall but includes incentives and other strategies to maximize tenant occupancy,
- a reduced development alternative that includes reduced office and residential use development,
- a balanced growth alternative that would attempt to match the proposed new residential development in both amount and housing cost (i.e., market rate, moderate income, low income, very low income) to the expected amount and demographics of the additional employment that would be associated with the new commercial development, and
- A conventional layout alternative that would comply with existing City standards for development and open space and would use rooftop areas for solar energy generation.

Please include all technical support for the above analyses in appendices to the DEIR.

Total Control Panel Login

To: planning@cupertino.org Remove this sender from my allow list
From: griffin@compuserve.com

You received this message because the sender is on your allow list.

Peggy Griffin Sent via email Monday 3/12/2018 2:08 p.m.

Dear Planning and City Council,

I am sending this to both of you because I feel this Vallco Specific Plan EIR process has not provided the public with adequate information on what is proposed to be studied and should be stopped. It also goes against our General Plan!

VALLCO SPECIFIC PLAN EIR SCOPING COMMENTS:

1. The various project parameters being studied are not clear and not easily available to the public. This makes it very difficult for the public to comment on the scope!
2. One project being studied looks like what can be described as "The Hills at Vallco" Measure D that was defeated at the polls. This also is in direct conflict with MANY pages of our current General Plan. If the intent is for a General Plan Amendment then this feels like an underhanded way to quietly study it then later pass an amendment.
3. Our General Plan states on several pages (!) that if a Vallco Specific Plan is not approved by May 31, 2018 then the City Council WILL schedule a meeting…How can we be doing an EIR when the General Plan is in flux? Why are we wasting our tax dollars?
4. From the Open House, a screen was flashed showing the other alternatives. One said "2/3rd of" but did not give ANY NUMBERS. How can we know what's being used/studied??? I can't find it anywhere online. It should be readily available and easily found. This prevents citizens from having adequate information and can be considered creating an obstacle to allowing adequate access to this EIR process.

This feels backwards. Do the Specific Plan first then the EIR on it. It would be clearer, less expensive and probably provide much better results because it won't be so open-ended.

It takes courage to stop a process in midstream. Please find that courage!

Sincerely,

Peggy Griffin

3/9/2018

Vice Mayor Rod Sinks and Council Member Steven Scharf
Subject: Vallco Shopping Mall

Dear Vice Mayor Rod Sinks and Council Member Steven Scharf,

I'm writing on behalf of the suggestions regarding new usage for Vallco Mall that I hope will be shared with the Mayor and other Cupertino Board Members. While I do not live in Cupertino, I have driven down and visited Vallco when the mall was populated with businesses and visitors.

What happened to Vallco is tough to determine. Some would consider it too large of a mall as walking the floors just takes time, not to mention doubling back to stores and remembering where they were located. At the time, I found the mall to be too enclosed, too dark, the storefronts too small, and the architecture too linear. In any case, Vallco has been a vacant mall for years and I believe that the land could be used for better purposes. The land is so large, and the parking lot so vast, that the City of Cupertino has a wonderful opportunity to develop this area into something totally new and unique.

I for one believe that the land should still be used for retail and entertainment purposes again. I saw the idea of having housing and retail with a living park roof that didn't get the votes.

Here are my suggestions for Vallco if a new mall won't be built.

- I suggest a museum the likes of which the world has never seen. The reason I suggest this is that with the rising population, many with kids, the Bay Area needs locations to foster the mind and encourage Science, Technology, Engineering, and Math (STEM) skills.

With the high-tech in Silicon Valley and the millionaires and billionaires in the Bay Area, a museum with dinosaur animatronics, fossils, a huge dome Planetarium, theaters, virtual reality, and artifacts would attract people from all over. When people visit the Bay Area, some drive as far as Napa for the wine and to Monterey for the aquarium. A stop in Cupertino might make sense…just along Highway 280.

The California Academy of Sciences won't expand its footprint in the near future. I believe the CA Academy is too small as it lacks much of the collection it once had. It doesn't have many fossils, insects, nature settings, anthropology, astronomy, or models. It doesn't have the space to display most of its stored collections. By partnering with the CA Academy and the neighboring University of California and Stanford, NASA's Ames Research Center, in addition to private sponsors like high-tech Silicon Valley companies, the Vallco area could be the ideal museum destination of a "Smithsonian Institution" that the West Coast never had. The area has ample parking space. Some of the features would be:

- Tropical Rain Forest, be it a dome or like Biosphere
- Bamboo forest climate and walk-through complete with taxidermies

Vallco Museum

- Huge temperature control room. What is it like to be in the hot desert? The freezing Arctic? A room with movable scenery could give visitors a glimpse and feel of life in other parts of the world.
- X-Prize exhibit room and Genius Contest Challenges (for Silicon Valley)
- Huge screens hooked up to webcams throughout the world to show visitors how it's like in Paris, Rome, Beijing, Tokyo, Venice, Cairo, etc. in live real time. One can see the sun rise and sunset by the hours of the digital clocks above these locations. One can hook into the Google network of maps and streetviews to travel to remote areas of the world. One can see pandas in Washington DC and San Diego or African animals at the watering hole.
- Theater rooms to showcase all the video captured by scientists in the USA from their expeditions
- Dinosaur exhibits of animatronics in their environments. Now I don't mean one or two dinosaurs on a platform like other museums, but a huge forest with dinosaurs similar to Jurassic Park where visitors could walk among the artificial jungles and plains and under the Brontosaurus. Bendable OLEDs could showcase the fossils, internal organs, servo mechanics, food intake, blood vessels, and outer skin.
- Astronomy section with landscape displays of exoplanets, 1:1 models of probes, rovers, satellites, and rockets, graphics of telescope images, and the latest NASA data and photos. The CA Academy of Sciences lacks the space for astronomy displays. Team up with the Universities all over the USA and there will be plenty of floor space to display the latest astronomy. A movable floor could be used to sculpt the latest ideas of how Exoplanets surfaces appear. A mockup of the Orion and Dragon capsule and ISS Space Station will show visitors the future of US space flight.
- A robotics section showcasing the latest technological products from participating companies. Robot arms, Maker's Faire, drones, self-driving cars, etc.
- 3D IMAX. The Bay Area lacks many 3D IMAX screens. This could add infusion to produce more IMAX movies.
- Insect and gem hall. Again, vastly larger than what the Bay Area museums currently have.
- Other rooms for exhibits as museums evolve.
- Native American and other world cultures (University of Vancouver's museum excels in this area).
- Parking structures and underground storage

The purpose of this Vallco Cupertino Museum is to unite all the California Universities' collections and private companies' contributions into one location. The CA Academy of Sciences cannot do this; it lacks the floor space. Other museums are private, such as George Lucas's museum of Movie History and the Fisher Museum of Art in Stanford are located in their own cities; they had no other place to settle and build. Who knows…perhaps in future years Cupertino could build art museums or additional structures next to this one.

Sincerely,
Peter Ong

Vallco Museum

From:	Randy Shingai
To:	Piu Ghosh; David Brandt; City Council
Cc:	City Clerk; City Attorney"s Office
Subject:	"Vallco Specific Plan" - revocable office and housing allocations.
Date:	Wednesday, February 28, 2018 2:52:21 PM
Attachments:	CC Resolution No. 14-210 Certifying an Environmental Impact Report for the (1).pdf

Dear Council and Staff

This a comment on the Notice of Preparation for the Vallco Special Area Specific Plan. There are assertions regarding the commercial, office, hotel and residential authorized in the General Plan for the "Special Plan." The Notice of Preparation says:

> *Consistent with the adopted General Plan, the Specific Plan would facilitate the development of 600,000 square feet of commercial uses, 2.0 million square feet of office uses, 339 hotel rooms, and 800 residential dwelling units onsite.*
>
> http://www.cupertino.org/home/showdocument?id=19386

I downloaded the latest copy of Resolution 14-210 from the City's archive. It is attached to this e-mail. This is what was approved by the City Council and signed on Dec. 4, 2014. Note the following:

1. A Vallco Shopping District Special Plan satisfying the conditions set in Resolution 14-210 was a condition for the provisional allocations for office space and housing becoming permanent.

2. The General Plan's 389 housing units identified for the Vallco Shopping District is contingent on approval of a Specific Plan by May 31, 2018.

3. The General Plan's 2,000,000 sq. ft. office allocation for the Vallco Shopping District is contingent on approval of a Specific Plan by May 31, 2018.

I cut and pasted the following from Resolution 14-210 (the highlights are mine):

Page I-3

> *The development allocations in the Approved Project are as follows:*
>
> *Office allocation: 2,000,000 square feet of office allocation is identified for the Vallco*
> *Shopping District site contingent on timely approval of a specific plan for the Vallco*
> *Shopping District). The remainder of the existing allocation is unchanged and is still*
> *available for citywide use as provided for in the General Plan.*
>
> *Residential allocation: 1, 400 dwelling units of the existing residential allocation on*
> *sites recommended for the 2014-2022 Housing Element Inventory, 389 of which are*
> *identified for the Vallco Shopping District contingent on timely approval of a specific plan for the Vallco Shopping District site*

Page I-4

> *As stated, these Approved Project allocations rely in part on timely preparation of a specific plan for the Vallco Shopping District that meets the requirements of the General Plan. If a Vallco Shopping District Specific Plan is not approved by May 31, 2018, then the City will consider removing the 2,000,000 square feet of office allocation from the Vallco Shopping District. In addition, as described in section II.B, below, the Council will further consider redistributing the residential allocation of 389 units for the Vallco Shopping District Housing Element site to other Housing Element sites and removing the Vallco site from the Housing Element Inventory.*

Page I-5

> *The Approved Project involves a list of five Priority Housing Sites (Scenario A) and an alternate list of six Priority Housing Sites (Scenario B). Four of the sites are in both lists. If the City has not approved a specific plan for the Vallco Shopping District site, which is listed in Scenario A, by May 31, 2018, the City will consider actions to remove the Vallco Shopping District site from the Housing Element Inventory and to add the Glenbrook Apartments site and the Homestead Lanes site(Scenario B), and will consider redistributing the 389 units that could have been developed on the Vallco site as follows:*
> *35 additional units to the Oaks Shopping Center site, 150 additional units to The Hamptons site, 58 units to the Glenbrook Apartments site, and 132 units to the Homestead Lanes site.*
> *These changes in the recommended Housing Element sites do not have the potential to create any new or substantially more severe significant effects on the environment, because all of the Housing Element sites were analyzed in the EIR at or above the number of units shown for those sites in the Approved Project.*

Also, please redact my e-mail address and include this as a response to the NOP for the Vallco Shopping District.

Thank you,

Randy Shingai
San Jose

Total Control Panel Login

To: piug@cupertino.org	Message Score: 1	High (60): Pass
From: [redacted]	My Spam Blocking Level: High	Medium (75): Pass
		Low (90): Pass
	Block this sender	
	Block gmail.com	

This message was delivered because the content filter score did not exceed your filter level.

From:	Randy Shingai
To:	Piu Ghosh; David Brandt; City Council
Cc:	City Clerk; City Attorney"s Office
Subject:	yet more on Vallco housing and office entitlements.
Date:	Thursday, March 01, 2018 8:10:47 AM

Dear Staff and Council,

My earlier assertion that the allocation of 389 housing units and 2 million sq. ft. of office should not be considered entitlements is supported in the text of Measure D, The Vallco Town Center Specific Plan Initiative, and in the 9212 Report prepared for Measure D. The allocation of housing and office are subject to the approval of a Specific Plan by May 31, 2018. Sand Hill Property Company says so too.

Measure D text

Page C-19

> *Pursuant to General Plan Land Use Element Strategy LU-1.2.1 (Planning Area All ocat ions) and Table LU-1 (Citywide Development Allocation Between 2014-2040), the Plan Area is allocated 1,207,774 square feet of commercial uses {consisting of a minimum of 600,000 square feet of retail uses, of which a maximum of 30 percent may be entertainment uses), 2 million square feet of office uses, 339 hotel rooms, and 389 residential dwelling units, provided that a Specific Plan for the Plan Area is adopted by May 31, 2018.*

Page D-3

> *The Plan Area, inclusive of the three properties, will have a General Plan land use designation of Val/co Town Center Specific Plan . Table LU-1 of the General Plan Land Use and Community Design Element provides a buildout development allocation for the Vallco Shopping District Special Area : 1.2 million square feet of commercial uses (with a minimum of 600 ,000 square feet of retail uses, of which a maximum of 30 percent may be entertainment uses); 2 million square feet office uses, 339 hotel rooms; and 389 residential dwelling units, provided that a specific plan for the Vallco Shopping District Special Area is adopted by May 31, 2018.*

Page D-34

- *A specific plan will be required to implement a comprehensive strategy for a retail/office/residential mixed use development. The project applicant would be required to work closely with the community and the City to bring forth a specific plan that meets the community 's needs, with the anticipated adoption and rezoning to occur within three years of the adoption of the 2014-2022 Housing Element (by May 31, 2018). The specific plan would permit 389 units by right at a minimum density of 20 units per acre.*

> *If the specific plan and rezoning are not adopted within three years of Housing Element adoption (by May 31, 2018), the City will schedule hearings consistent with Government*

Code Section 65863 to consider removing Vallco as a priority housing site under Scenario A, to be replaced by sites identified in Scenario B.

https://s3.amazonaws.com/c-initiatives/Vallco-Initiative-Measure-text.pdf

Measure D's 9212 Report, Page 34

The Housing Element contains two lists of "priority Housing Element sites" that can accommodate the City's share of
regional needs. Scenario A, the preferred scenario, includes Vallco as a housing site. Scenario B, the contingency
plan, removes Vallco as a priority site and transfers those units to other sites in the event that a Specific Plan to
develop housing as part of a mixed-use project at Vallco is not approved by May 31, 2018.

http://www.cupertino.org/home/showdocument?id=11963

Please redact my e-mail address and include this in the NOP comments too.

Thank you,
Randy Shingai
San Jose

Total Control Panel Login

To: piug@cupertino.org
From: [redacted]

Message Score: 1
My Spam Blocking Level: High

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Medium (75): Pass
Low (90): Pass

This message was delivered because the content filter score did not exceed your filter level.

Comments for Vallco Special Area Specific Plan
Environmental Impact Report NOP
File Number EA-2017-05

Government Code 15082. Notice of Preparation and Determination of Scope of EIR

> *(a) Notice of Preparation. Immediately after deciding that an environmental impact report is required for a project, the lead agency shall send to the Office of Planning and Research and each responsible and trustee agency a notice of preparation stating that an environmental impact report will be prepared. This notice shall also be sent to every federal agency involved in approving or funding the project.*
>
> *(1) The notice of preparation shall provide the responsible and trustee agencies and the Office of Planning and Research with sufficient information describing the project and the potential environmental effects to enable the responsible agencies to make a meaningful response. At a minimum, the information shall include:*
>
> *(A) Description of the project,*
>
> *(B) Location of the project (either by street address and cross street, for a project in an urbanized area, or by attaching a specific map, preferably a copy of a U.S.G.S. 15' or 7-1/2' topographical map identified by quadrangle name), and*
>
> *(C) Probable environmental effects of the project.*

I am concerned with the lack of detail in the Project description in the Notice of Preparation. Is "600,000 square feet of commercial uses, 2.0 million square feet of office uses, 339 hotel rooms, and 800 residential dwelling units onsite" sufficient detail to start preparing an EIR? Saying that the Specific Plan will contain the details necessary to prepare an EIR is not enough information to enable anyone to write a meaningful response to the NOP, especially when the draft Specific Plan is not expected for several months.

I am also concerned that the planner responsible for the project supposedly described an entirely different project in an article in Cupertinotoday.com. The expansion of the project to 2,600 or 2,800 housing units would require an amended NOP, wouldn't it?

> *According to Cupertino Senior Planner Piu Ghosh, "the General Plan currently allows residential development at the site of up to 35 dwelling units per acre." According to City calculations revealed at the scoping session, the "General Plan build-out" (alternative 2) will have approximately 2,600 or 2,640 housing units. However, using the formulas that include the state density bonus, the City's ballpark estimate of residential will likely increase to upwards of 2,800 residential units.*
>
> https://cupertinotoday.com/2018/03/01/vallco-2640-homes-5-million-sq-ft-development/

Lastly, I want to make the point that a public meeting presenting the "existing condition" for the Vallco Special Area Specific Plan is scheduled a day after the deadline for comments to this NOP. The deadline for comments to the NOP is Monday, March 12, 2018 by 4:30 p.m. The "Existing Condition Presentation" is Tuesday, March 13, 2018 at 6 p.m. So in addition to the Notice of Preparation being deficient with respect to providing information on the "probable environmental effects of the project", a public meeting that might provide those that could attend information that was not included in the NOP will happen after the NOP comment period is past.

http://www.cupertino.org/Home/Components/News/News/2035/26?NavID=412

Government Code 65451

> *(a) A specific plan shall include a text and a diagram or diagrams which specify all of the following in detail:*
>
> *(1) The distribution, location, and extent of the uses of land, including open space, within the area covered by the plan.*
>
> *(2) The proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan.*
>
> *(3) Standards and criteria by which development will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable.*
>
> *(4) A program of implementation measures including regulations, programs, public works projects, and financing measures necessary to carry out paragraphs (1), (2), and (3).*
>
> *(b) The specific plan shall include a statement of the relationship of the specific plan to the general plan.*

Timeline for the Vallco Special Area Specific Plan has "Summer 2018" as the planned completion date of the Draft Specific Plan. Since the purpose of a Notice of Preparation is to solicit comments for the preparation of an EIR for the Specific Plan, and a draft Specific Plan will not be available until Summer 2018, the Notice of Preparation seems premature. If there was not enough information to formulate a meaningful "description of the project", then there was not enough information to make the determination that a NOP was even necessary. Ordinarily one could claim "no harm, no foul", but in this case the public is being denied its opportunity to make meaningful comments on the preparation of the EIR for the Specific Plan.

http://www.cupertino.org/Home/Components/News/News/2035/26?NavID=412
https://envisionvallco.org/event/draft-specific-plan

Government Code 15125(d)

> *(d) The EIR shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans. Such regional plans include, but are not limited to, the applicable air quality attainment or maintenance plan or State Implementation Plan, area-wide waste treatment and water quality control plans, regional transportation plans, regional housing allocation plans, habitat conservation plans, natural community conservation plans and regional land use plans for the protection of the Coastal Zone, Lake Tahoe Basin, San Francisco Bay, and Santa Monica Mountain*

Please cover any inconsistencies between the General Plan and any other plans, with the yet-to-be-drafted Specific Plan. I would like to supply more details for some of these items, but the information is not available, and supposedly has yet to be written.

None the less, please be sure to cover any inconsistencies with these General Plan items:

HE-1.3.1 Land Use Policy and Zoning Provisions

> This paragraph:
>
> *If the specific plan and rezoning are not adopted within three years of Housing Element adoption (by May 31, 2018), the City will schedule hearings consistent with Government Code Section 65863 to consider removing Vallco as a priority housing site under Scenario A, to be replaced by sites identified in Scenario B (see detailed discussion and sites listing of "Scenario B" in Appendix B - Housing Element Technical Appendix).*

Appendix B: Housing element Technical Report

> This paragraph:
>
> *The site is designated Regional Shopping/Office/Residential in the General Plan and zoned Planned Development with Regional Shopping and Commercial (P[Regional Shopping and P[CG]). Strategy HE-1.3.1 provides that the City will adopt a Specific Plan for the Vallco site by May 31, 2018 that would permit 389 units by right at a minimum density of 20 units per acre. The zoning for the site would be modified as part of the Specific Plan process to allow residential uses*

as part of a mixed-use development at a maximum density of 35 units per acre. If the Specific Plan is not adopted, the City will schedule hearings consistent with Government Code Section 65863 to consider removing Vallco Shopping District as a Priority Housing Site and replacing it with the sites shown in Scenario B.

LU-3.2 Building Heights and Setback Ratios

LU-3.3 Building Design

LU-3.4 Parking

LU-4 Streetscape Design

LU-10 Regional Cooperation and Coordination

LU-19 Vallco Shopping District Special Area

- LU-19.1.1 Master Developer
- LU-19.1.2 Parcel Assembly
- LU 19.1.3 Complete Redevelopment
- LU-19.1.4 Land Use
- LU-19.1.5 "Town Center" Layout
- LU-19.1.6 Connectivity
- LU-19-1.7 Existing Streets
- LU-19.1.8 Open Space
- LU-19.1.9 Building Form
- LU-19.1.11 Phasing Plan
- LU-19.1.12 Parking
- LU-19.1.13 Trees
- LU-19.1.14 Neighborhood Buffers

RPC-1.2 Parkland Standards
RPC-2 Distribution
RPC-3 Preservation of Natural Areas
RPC-4 Park Integration
RPC-5 Trails
RPC-7 Facilities
RPC-8 Schools

Government Code 15088

Government Code 15088 requires a response for all comments on "environmental issues" received be addressed in the EIR. I want to make sure that any issues that qualify under Government Code 15125(d) are considered "environmental issues" so that they are responded to in the EIR.

Sanitary Sewer Capacity

There is currently a 12" sanitary sewer line servicing the site. The capacity of the existing 12" sewer line and downstream lines should be evaluated to make sure they have adequate capacity for the project and for storm water infiltration. The study should include any parking areas, especially the underground parking areas that could drain into the sanitary sewer system.

An analysis of the project's sanitary sewer needs and the environmental impacts of supplying those needs for the expected life of the project should be covered.

Groundwater Infiltration

Changes to the permeable areas of the site must be evaluated with respect to groundwater infiltration.

Water Supply Impacts

An analysis of the project's possible sources of water and the environmental impacts of supplying that water for the expected life of the project should be covered.

Environmental Baselines

Many development projects in the area, such as the Apple II buildings are not yet fully operational. There are also expected effects from climate change. Existing and future conditions should be considered.

Contaminated Sites

There are 2 contaminated sites within the Vallco Specific Plan area and many other adjacent sites that are listed on the State's Water Resources Control Board's website. In particular any soil excavation and/or removal should include an assessment of any risk from these sites:

J.C. PENNEY (T0608500770)
SEARS AUTOMOTIVE CENTER (T0608552828)
FORMER TANDEM / APPLE (T10000000740)
TOSCO #11220 (T0608575840)
MOBIL (T0608500926)
SHELL (T0608501269)

Compliance during Demolition and Construction and Use

I would like to make sure that soil, air, water, noise pollution and biological impacts during demolition and construction are covered. The situation that occurred at Candlestick Point should not be repeated here.

https://www.nbcbayarea.com/news/local/Lennar-Crews-Use-Drinking-Water-Not-Recycled-to-Douse-Construction-Site-at-Candlestick-Park-303881781.html

Impacts from greenhouse gas emissions from demolition, construction and use must be analyzed. Any demolition and construction in the air space over Wolfe Road is a big concern.

Thresholds for Determining Impact Significance

Thresholds and standards for the determination of impact significance must be characterized and justified. Individual components must also be aggregated to see if their cumulative effects are significant. Indirect effects that are reasonably foreseen must likewise be addressed.

Thank you,

Randy Shingai
San Jose

March 7, 2018

RESOLUTION NO. 14-210

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CUPERTINO CERTIFYING AN ENVIRONMENTAL IMPACT REPORT FOR THE GENERAL PLAN AMENDMENT, HOUSING ELEMENT UPDATE, AND ASSOCIATED REZONING PROJECT; AND ADOPTING FINDINGS AND A STATEMENT OF OVERRIDING CONSIDERATIONS, MITIGATION MEASURES, AND A MITIGATION MONITORING AND REPORTING PROGRAM

SECTION I: PROJECT DESCRIPTION

Application No: EA-2013-03
Applicant: City of Cupertino
Location: Citywide

SECTION II: ENVIRONMENTAL REVIEW PROCESS

WHEREAS pursuant to City Council direction to initiate a project to replenish, reallocate and increase citywide development allocations in order to plan for anticipated future development activity while keeping with the community's character, goals, and objectives, and to consolidate development requests by several property owners for amendments to the General Plan, both under a comprehensive community vision, and

WHEREAS, pursuant to State Housing Law, the City Council has directed staff to update the Housing Element of the General Plan and make associated zoning amendments to comply with State Law; and

WHEREAS, pursuant to the provisions and requirements of the California Environmental Quality Act of 1970 (Public Resources Code Section 21000 *et seq.*) ("CEQA") and the State CEQA Guidelines (Title 14, Sections 15000 *et seq.* of the California Code of Regulations) ("CEQA Guidelines"), the City of Cupertino as lead agency caused the General Plan Amendment, Housing Element Update and Associated Rezoning Final Environmental Impact Report (SCH#20140322007) ("EIR") to be prepared; and

WHEREAS, on March 5, 2014, the City issued Notice of Preparation for the EIR for the Project. A scoping session was held on March 11, 2014 to provide the public the opportunity to comment on the topics to be studied in the Draft Environmental Impact Report ("Draft EIR"). Public comments were collected through the scoping period's conclusion on April 7, 2014; and

WHEREAS, from April 8, 2014 to June 17, 2014, the City prepared a Draft EIR pursuant to the requirements of CEQA and the CEQA Guidelines; and

WHEREAS, the Draft EIR was released for a 45-day public review/comment period beginning on June 18, 2014 and ending August 1, 2014; and

WHEREAS, the Notice of Completion of the Draft EIR was sent to the State Clearinghouse in the Governor's Office of Planning and Research on June 18, 2014 under State Clearinghouse No. 2014032007, and the Notice of Availability was filed with the Santa Clara County Clerk-

Recorder on the same day and was also: (1) sent to other potentially affected agencies as required by CEQA; (2) sent to adjacent property owners as required by CEQA; and (3) posted at the Project site and at City Hall; and

WHEREAS, on June 24, 2014, the City held a duly noticed public meeting during the public comment period on the Draft EIR to allow the public an additional opportunity to provide input on the DEIR and received public testimony; and

WHEREAS, following the close of the public review and comment period on the Draft EIR, responses to written comments concerning the adequacy of the DEIR received during the public review and comment period have been prepared and compiled in the Response to Comments Document, which includes revisions to the DEIR ("RTC Document"); and

WHEREAS, the RTC Document was issued on August 28, 2014 and notice of availability was sent to the Santa Clara County Clerk Recorder's Office, posted at City Hall and the Project site, and sent to 10 local libraries and interested persons registered through the project website; and

WHEREAS, copies of the RTC Document were sent to all public agencies that commented on the Draft EIR; and

WHEREAS, the City received comments on the Draft EIR following the close of the public review and comment period ("Late Comments") and, although pursuant to Public Resources Code Section 21091(d)(1) and CEQA Guidelines Section 15088(a) written responses are not required, responses to Late Comments have been provided with staff reports; and

WHEREAS, pursuant to Cupertino Municipal Code Section 2.86.100, the Housing Commission is authorized to assist the Planning Commission and the City Council in developing housing policies and strategies for implementation of general plan housing element goals; and

WHEREAS, the necessary public notices have been given as required by the procedural ordinances of the City of Cupertino and the Government Code, the Housing Element and proposed amendments to the Cupertino Municipal Code pertaining to housing and affordable housing, were presented to the Housing Commission at a public hearing on August 28, 2014; and

WHEREAS, on August 28, 2014, the Housing Commission recommended that the City Council authorize staff to forward the Draft Housing Element to the State Department of Housing and Community Development (HCD) and use the High-Low prioritization of Potential Housing Element Sites;

WHEREAS, the necessary public notices have been given as required by the procedural ordinances of the City of Cupertino and the Government Code, the Draft EIR, the RTC Document, and all documents incorporated therein were presented to the Planning Commission on September 9, 2014 at a Planning Commission Study Session; and

WHEREAS, on October 2, 2014, City Staff presented the Draft EIR and the RTC Document, and all documents incorporated therein, to the Environmental Review Committee ("ERC") for review and recommendation. After considering the documents, and Staff's presentation, the ERC recommended that the City of Cupertino City Council approve the Project; and

WHEREAS, Supplemental Text Revisions to the General Plan Amendment, Housing Element Update and Associated Rezoning, which is part of the Final EIR, identifies revisions which are typographical corrections, insignificant modifications, amplifications and clarifications of the Draft EIR and the RTC Document; and

WHEREAS, the "Final EIR" consisting of the Draft EIR (published in June 2013), the RTC Document (published in September 2013), and Supplemental Text Revisions (published October 8, 2014) and all documents incorporated therein was presented to the City Council on October 7, 2014 at a City Council Study Session; and

WHEREAS, the necessary public notices have been given as required by the procedural ordinances of the City of Cupertino and the Government Code, and the Planning Commission held public hearings on October 14, 2014 and October 20, 2014 to consider the project; and

WHEREAS, on October 20, 2014, the Planning Commission recommended on a 4-0-1 (Takahashi absent) vote that the City Council certify that the Final EIR has been completed in compliance with the California Environmental Quality Act, Public Resources Code Section 21000 *et seq.*, and reflects the independent judgment and analysis of the City, adopt the Findings and Statement of Overriding Considerations, and adopt the Mitigation Measures and adopt the Mitigation Monitoring and Reporting Program, in substantially similar form to the Resolution presented (Resolution no. 6760); adopt the General Plan Amendment (GPA-2013-01) (Resolution no. 6761); authorize staff to forward the Draft Housing Element to the State Department of Housing and Community Development for review and certification (GPA-2013-02); approve the prioritized list of potential Housing Element sites in the event amendments are needed to the proposed Housing Element sites upon HCD review (Resolution no. 6762); approve the Zoning Map Amendments, Z-2013-03, in substantially similar form to the Resolution presented (Resolution no. 6763); approve the Municipal Code Amendments to make changes to conform to the General Plan and Housing Element and other clean up text edits (MCA-2014-01) (Resolution no. 6764); approve the Specific Plan Amendments, SPA-2014-01, in substantially similar form to the Resolution presented (Resolution no. 6765); and

WHEREAS, on November 10, 2014, public comment was heard from the community;

WHEREAS, on December 2, 2014, the City Council held a duly noticed public hearing that was continued to December 3, 2014 and adjourned on December 4, 2014 on the EIR (EA-2013-03); as well as the following concurrent Project applications: General Plan Amendment (GPA-2013-01), Housing Element update (GPA-2013-02), Zoning Map Amendment (Z-2013-01), Municipal Code Amendments (MCA-2014-01), Specific Plan Amendment (SPA-2014-01).

NOW, THEREFORE, BE IT RESOLVED:

That after careful consideration of maps, facts, exhibits, testimony, staff reports, public comments, and other evidence submitted in this matter, the City Council does:

1. Certify that the Final EIR for the Project has been completed in compliance with the California Environmental Quality Act, Public Resources Code Section 21000 et seq., and reflects the independent judgment and analysis of the City.

2. Adopt the Findings and Statement of Overriding Considerations for the Project, attached hereto as "Exhibit EA-1," and incorporated herein by reference.

3. Adopt and incorporate into the Project all of the mitigation measures for the Project that are within the responsibility and jurisdiction of the City that are identified in the Findings.

4. Adopt the Mitigation Monitoring and Reporting Program for the Project, attached hereto as "Exhibit EA-2," and incorporated herein by reference.

PASSED AND ADOPTED at a meeting of the City Council of the City of Cupertino this 4th day of December 2014, by the following vote:

Vote:	Members of the City Council:
AYES:	Sinks, Chang, Paul, Vaidhyanathan, Wong
NOES:	None
ABSTAIN:	None
ABSENT:	None

ATTEST:

Grace Schmidt, City Clerk

APPROVED:

Rod Sinks, Mayor, City of Cupertino

EXHIBIT EA-1

CALIFORNIA ENVIRONMENTAL QUALITY ACT FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS FOR GENERAL PLAN AMENDMENT, HOUSING ELEMENT UPDATE, AND ASSOCIATED REZONING

I. INTRODUCTION

The City of Cupertino (City), as lead agency under the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 *et seq.*, has prepared the Final Environmental Impact Report for the General Plan Amendment, Housing Element Update, And Associated Rezoning (the "Project") (State Clearinghouse No. 2014032007) (the "Final EIR" or "EIR"). The Final EIR is a program-level EIR pursuant to Section 15168 of the State CEQA Guidelines.[1] The Final EIR consists of Volumes I and II of the June 2014 Public Review Draft Project Environmental Impact Report (the "Draft EIR"); the August 2013 Response to Comments Document; and the November 3, 2014 Supplemental Text Revisions memorandum,[2] which contains typographical corrections, insignificant modifications, amplifications and clarifications of the EIR.

In determining to approve the Project, as described in more detail in Section II, below, the City makes and adopts the following findings of fact and statement of overriding considerations, and adopts and makes conditions of project approval the mitigation measures identified in the Final EIR, all based on substantial evidence in the whole record of this proceeding (administrative record). Pursuant to Section 15090(a) of the State CEQA Guidelines, the Final EIR was presented to the City Council, the City Council reviewed and considered the information contained in the Final EIR prior to making the findings in Sections II through XIII, below, and the City Council determined that the Final EIR reflects the independent judgment of the City. The conclusions presented in these findings are based on the Final EIR and other evidence in the administrative record.

II. PROJECT DESCRIPTION

As fully described in Chapter 3 of the Draft EIR, the Project involves all of the following: (1) a focused General Plan Amendment consisting of revised city-wide development allocations for office commercial, and hotel uses, as well as buildings heights and densities for Major Mixed-Use Special Areas; (2) updating the General Plan Housing Element to accommodate

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[1] The State CEQA Guidelines are found at California Code of Regulations, Title 14, Section 15000 *et seq.*

[2] PlaceWorks, *Supplemental Text Revisions to the General Plan Amendment, Housing Element Update and Associated Rezoning Project Final Environmental Impact Report (EIR)* (November 3, 2014) ("Supplemental Text Revisions Memo").

the Regional Housing Needs Allocation (RHNA) for the 2014-2022 planning period to meet the City's fair-share housing obligation of 1,064 units; (3) amending certain Zoning and other portions of the City's Municipal Code contained in Titles 13, 18, and 19 to be consistent with the Housing Element, and to implement policies in the General Plan; and (4) conforming changes to the General Plan Land Use Map, Heart of the City Specific Plan, Zoning Ordinance and Zoning Map for consistency and for revisions required by State law, and reorganization for purposes of increasing clarity and ease of use.

The increased development allocations would be allowed in specific locations throughout the City, which are categorized as follows and are described and depicted on figures in the EIR:

- Special Areas (including City Gateways and Nodes along major transportation corridors);
- Study Areas;
- Other Special Areas (including Neighborhoods and Non-Residential/Mixed-Use Special Areas); and
- Housing Element Sites

The buildout of the potential future development in these identified locations is based on a horizon year of 2040; therefore, the EIR analyzes growth occurring between 2014 and 2040. The 2040 horizon year is generally consistent with other key planning documents, including Plan Bay Area, which is the Bay Area's Regional Transportation Plan/ Sustainable Community Strategy to Senate Bill 375, the Sustainable Communities and Climate Protection Act.

The EIR analyzed Land Use Alternative C as the "proposed Project" in the EIR[3] and three additional alternatives (the No Project Alternative, Land Use Alternative A, and Land Use Alternative B), all at the same level of detail. The Approved Project consists of portions of the proposed Project analyzed in the EIR that are the same as or reduced from the levels of development that were analyzed in the EIR, as described below. Other portions of the proposed Project may be considered separately by the City Council at a later date.

The Approved Project also involves revisions to the prioritization of the Housing Element sites that were analyzed in the EIR, along with reassignment of housing units among some of these Housing Element sites. The maximum height limits are either reduced or remain the same as the maximum heights analyzed in the EIR. For all sites at which heights above 45 feet are allowed, the base height is set at 45 feet unless certain specified requirements are

[3] Draft EIR, p. 2-5 (Table 2-1, footnote a).

met. Residential densities are either reduced or remain the same as the densities analyzed in the EIR.

A. General Plan Amendment

Every city and county in California is required to prepare and to adopt a comprehensive, long-term general plan for the physical development of the county or city and, in some cases, land outside the city or county boundaries. Government Code § 65300. The City's current, 2000-2020 General Plan controls the area and density of commercial, office, hotel, and residential uses built in the city through development allocations in terms of square feet (commercial and office), rooms (hotel), and units (residential). The allocations are geographically assigned in certain neighborhoods, commercial, and employment centers so that private development fulfills both City goals and priorities and reduces adverse impacts to the environment. The City allocates development potential on a project-by-project basis to applicants for net new office and commercial square footage, hotel rooms, and/or residential units. As a result of several recent approvals of projects, a large amount of the current office, commercial and hotel development allocation has been granted, leaving an inadequate pool to allocate to additional development in the city.

While the Project is not a complete revision of the City's 2000-2020 General Plan. The current General Plan contains many goals, policies, standards, and programs that the City and community would like to continue into the future. The Project instead focuses on identifying and analyzing potential changes along the major transportation corridors in Cupertino that have the greatest ability to evolve in the near future because the rest of the city consists primarily of single-family residential neighborhoods.

The development allocations in the Approved Project are as follows:

- Office allocation: 2,000,000 square feet of office allocation is identified for the Vallco Shopping District site contingent on timely approval of a specific plan for the Vallco Shopping District). The remainder of the existing allocation is unchanged and is still available for citywide use as provided for in the General Plan.[4]

- Residential allocation: 1,400 dwelling units of the existing residential allocation on sites recommended for the 2014-2022 Housing Element Inventory, 389 of which are identified for the Vallco Shopping District contingent on timely approval of a specific plan for the Vallco Shopping District site[5]

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[4] See the description of Vallco Shopping District Specific Plan requirements in this section II.A.

[5] The Alternative C proposed residential allocation analyzed in the EIR is 4,421 units (net increase of 2,526 units from the 2000-2020 General Plan). See description of Vallco Shopping District Specific Plan and Housing Element Scenarios A and B in section II.B, below.

As shown above, development allocations are the same as or are reduced from Alternative C.

As stated, these Approved Project allocations rely in part on timely preparation of a specific plan for the Vallco Shopping District that meets the requirements of the General Plan. If a Vallco Shopping District Specific Plan is not approved by May 31, 2018, then the City will consider removing the 2,000,000 square feet of office allocation from the Vallco Shopping District. In addition, as described in section II.B, below, the Council will further consider redistributing the residential allocation of 389 units for the Vallco Shopping District Housing Element site to other Housing Element sites and removing the Vallco site from the Housing Element Inventory.

These changes in the General Plan Amendment and accompanying approvals, which are within the maximum impacts of development analyzed in the EIR, do not create new or substantially more severe significant effects on the environment for the reasons explained below. However, like Alternative C, the Approved Project will continue to have significant avoidable traffic, air quality and noise impacts even after incorporation of all feasible mitigation measures.

B. Housing Element Update

The Approved Project includes a comprehensive update to the City's Housing Element (the "2014-2022 Housing Element") in compliance with State law. The Housing Element's policies and programs are intended to guide the City's housing efforts through the 2014 to 2022 Housing Element period. The 2014-2022 Housing Element keeps many of the existing policies and strategies in the 2007-2014 Housing Element and revises them to conform to changes in State law or based on a critical evaluation of the programs and policies. The Housing Element assesses housing needs for all income groups and establishes a program to meet these needs. The policies and strategies have also been reorganized to provide for better readability and to eliminate redundancies.

State law requires each jurisdiction to address how it will satisfy the quantified objectives for new residential units as represented by the Regional Housing Needs Allocation (RHNA). The RHNA identifies Cupertino's housing needs by income levels. The City's housing needs allocation for the period 2014 to 2022 is 1,064 new housing units. The income levels are separated into four categories: very low, low, moderate and above moderate, shown in Draft EIR Table 3-20. Draft EIR, p. 3-66. State law allows jurisdictions to take credit for residential projects that have been approved, building permits issued during the plan period in which the review is taking place, and second dwelling units (also known as accessory dwelling units) that are anticipated to be constructed during the plan period.

The City has issued entitlements and/or building permits for 30 units since January 1, 2014.

Additionally, because 32 second units (on single-family lots) were constructed in the 2007-2014 plan period, it is anticipated that 32 second units will be constructed in the current plan period as well. Therefore, the City can take credit for a total of 62 units (30 units approved and 32 second units anticipated). As a result, the City is required to identify sites for the construction of 1,064 minus 62 units, or 1,002 units.

To accommodate the current planning period's RHNA, the Available Land Inventory in the Draft 2014-2022 Housing Element identified 19 potential housing sites, which are analyzed in the EIR. Of the original 19 sites identified in the Draft EIR, 16 remain for consideration.[6] If all 16 potential housing sites were developed, this would result in a net increase in housing in Cupertino over the 1,895 units allowed in the 2005 General Plan of 461 units new residential units between 2014 and 2040. Draft EIR, Table 3-12, pp. 3-68 to 3-70.

The Approved Project involves a list of five Priority Housing Sites (Scenario A) and an alternate list of six Priority Housing Sites (Scenario B). Four of the sites are in both lists. If the City has not approved a specific plan for the Vallco Shopping District site, which is listed in Scenario A, by May 31, 2018, the City will consider actions to remove the Vallco Shopping District site from the Housing Element Inventory and to add the Glenbrook Apartments site and the Homestead Lanes site (Scenario B), and will consider redistributing the 389 units that could have been developed on the Vallco site as follows: 35 additional units to the Oaks Shopping Center site, 150 additional units to The Hamptons site, 58 units to the Glenbrook Apartments site, and 132 units to the Homestead Lanes site. These changes in the recommended Housing Element sites do not have the potential to create any new or substantially more severe significant effects on the environment, because all of the Housing Element sites were analyzed in the EIR at or above the number of units shown for those sites in the Approved Project.

The means of achieving the development of these units are provided for in the policies and programs described in the Housing Element. The City's quantified objectives are identified in Table 3.4 of the Housing Element. The City is not obligated to construct the housing units identified by the RHNA. Rather, the City is required to demonstrate adequate capacity for at least 1,064 housing units, of which 1,002 units are in addition to the 30 units for which the City has issued building permits and 32 second units discussed above, by identifying sufficient specific sites in order to satisfy the RHNA under existing zoning and land use policy.

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[6] Of the 19 studied in the EIR, 16 sites are available for selection. That is because three property owners notified the City that their sites should not be included in the Housing Sites Inventory (the Homestead Road – Intrahealth/Office/Tennis Courts, Cypress Building Association/Hall Property, and Arya/Scandinavian Design sites). In addition, a portion of the Shan Restaurant site was removed from the Inventory at the request of one of the property owners, thereby decreasing the size of the site.

In addition to analyzing the 2014-2022 Housing Element for the specified planning period along with the remainder of the residential allocation, the Final EIR analyzes the overall environmental effects of increasing housing units on a citywide basis to address the amount of residential growth projected for Cupertino in Plan Bay Area (the Bay Area Region's Sustainability Communities Strategy and Regional Transportation Plan), which identifies that the City of Cupertino's housing need by 2040 will be 4,421 units.

C. Conforming General Plan Amendments, Specific Plan Amendments, Zoning Amendments, and Density Bonus Amendments

As part of the Housing Element update process, Chapter 19.56 (Density Bonus) in Title 19 (Zoning) of the City's Municipal Code will be amended to be consistent with the 2007–2014 Housing Element Program 12 (Density Bonus Program). Chapter 19.20 (Permitted, Conditional and Excluded Uses in Agricultural and Residential Zones), Chapter 19.76 (Public Building (BA), Quasi-Public Building (BQ) and Transportation (T) Zones), and Chapter 19.84 (Permitted, Conditional And Excluded Uses In Open Space, Park And Recreation And Private Recreation Zoning Districts), also in Title 19 (Zoning) of the City's Municipal Code, will be amended to ensure conformance with SB 2 requirements pertaining to permanent emergency shelters and to comply with the State Employee Housing Act with respect to farmworker housing and employee housing. Chapter 19.172 will be added to implement the City's Below Market Rate Program. Program 17 of the Housing Element, which addresses the potential loss of multi-family housing and displacement of lower- and moderate-income households due to new development, will be amended to comply with recent legislation and to mitigate the potential displacement impacts to renters (e.g. tenant relocation benefits), and other programs have been revised to better achieve the City's goals relating to housing and affordable housing. Other clean-up amendments and conforming changes have been made to the City's parkland dedication ordinance (Chapter 13.08), Chapter 19.08 (Definitions), Chapter 19.12 (Administration), Chapter 19.80 (P zones), and Chapter 19.144 (Development Agreements).

The Approved Project also includes revisions to the General Plan Land Use Map, the Heart of the City Specific Plan, the Zoning Ordinance (including the Chapters listed above and 19.08 (Definitions) and 19.144 (Development Agreements), and the Zoning map to ensure consistency with the General Plan as a result of changes to Housing Element policies or to address changes required as a result of State legislation adopted since the last General Plan update (such as Assembly Bill 1358, Complete Streets), and as a result of bringing non-conforming land uses into conformance with the General Plan and Zoning Ordinance.

D. Project Objectives

The project objectives are as follows:

- Emphasize employment and a mix of economic development opportunities by replenishing, reallocating, and increasing city-wide office, commercial, and hotel, allocations in order to capture:
    - A share of the regional demand for office and hotel development, and
    - Retail sales tax leakage in the trade area.
- Address local needs and regional requirements for new housing, including affordable housing, in Cupertino by replenishing, re-allocating and increasing city-wide residential allocations to be consistent with 2040 Bay Area Plan projections to allow flexibility for the city when future state-mandated updates are required to the Housing Element.
- Update the Housing Element as required by State law.
- Creating opportunities for mixed-use development consistent with Regional Sustainable Communities Strategies for greenhouse gas emissions reductions as required by SB 375.
- Investing in improvement to adapt to climate change over time.
- Consider increased heights in key nodes and gateways, if proposed development provides retail development and benefits directly to the community.
- Update General Plan policies to implement multi-modal traffic standards as opposed to LOS thresholds currently identified. Balancing development objectives with transportation constraints and opportunities.
- Revitalize the Vallco Shopping District by adopting policies to support its redevelopment, so it becomes a cohesive, vibrant shopping and entertainment destination that serves both the region and the local community.

III. ENVIRONMENTAL REVIEW PROCESS

A. Environmental Impact Report

On March 5, 2014, the City circulated a Notice of Preparation (NOP) of the Draft EIR to the Office of Planning and Research (OPR) State Clearinghouse and interested agencies and persons. A postcard notice had previously been delivered in February 2014 to all postal addresses in the City to announce upcoming dates for the General Plan and Housing Element projects. The NOP was circulated for comment by responsible and trustee agencies and interested parties for a total of 30 days, from March 5, 2014 through April 7, 2014, during which time the City held a public scoping meeting on March 11, 2014. Comments on the NOP were received by the City and considered during preparation of the Draft EIR.

The Draft EIR was made available for review by the public and interested parties, agencies, and organizations for a 45-day comment period starting on June 18, 2014 and ending August 1, 2014. The Draft EIR was distributed to local, regional and State agencies. Copies of the Draft EIR in paper or electronic format were available to interested parties for purchase or review at Cupertino City Hall. The Draft EIR was also available for review at libraries in the City and in surrounding communities, and an electronic version of the Draft EIR and all appendices were posted on a website the City created for the combined General Plan and Housing Element projects at www.cuptertinogpa.org, which included an electronic comment portal to receive public comment 24 hours a day, seven days a week. The City continues to make these documents available on its website for the Project at the following URL: http://www.cupertinogpa.org/app_folders/view/1. The public was also invited to submit written comments on the Draft EIR to the City of Cupertino Community Development Department by mail or e-mail to planning@cupertino.org.

Notice of availability of the Draft EIR was made in several ways. The City sent a postcard announcing the availability of the Draft EIR and inviting attendance at the Draft EIR comment meeting to all postal addresses in Cupertino. In addition, in accordance with CEQA, the City posted the Notice of Availability (NOA) on the Project website. The City also sent emails providing notice of the Draft EIR's availability to all persons who had indicated an interest in the Project and signed up for notifications through the City's website. The local media publicized the availability of the Draft EIR and the public comment period.

The City held a Community Open House and EIR Comment Meeting during the comment period on June 24, 2014. The City solicited written comments at the meeting by distributing comment cards that were collected at the end of the evening.

The 45-day comment period on the Draft EIR ended on August 1, 2014 at 4:30 p.m. Agencies, organizations, and members of the public submitted written comments on the Draft EIR. The Responses to Comments Document, which is the third volume of the Final EIR, was issued for public review on August 28, 2014 and sent to public agencies who had commented on the Draft EIR. Chapter 5 of the Responses to Comments Document provides responses to the comments received during the comment period on the Draft EIR. Late comments received after the close of the public comment period have been addressed in memoranda submitted to the City Council.

On September 9, 2014, the Planning Commission held a Study Session on the EIR and took public comments. On October 7, 2014, the City Council held a Study Session on the Final EIR and took public comments.

On October 2, 2014, the Environmental Review Committee determined that the EIR was adequate and recommended that the City Council certify the EIR. On October 20, 2014,

following a duly noticed public hearing on October 14, 2014 that was continued on October 20, 2014, the City Planning Commission, recommended that the City Council certify the Final EIR. On December 2, 2014, the City Council held a duly noticed public hearing which was continued to December 3, 2014 and was adjourned on December 4, 2014.

B. Additional Housing Element Public Review Process

The Housing Element must identify community involvement and decision-making processes and techniques that constitute affirmative steps for receiving input from all economic segments of the community, especially low-income persons and their representatives, as well as from other members of the community. Public participation, pursuant to Section 65583(c)(8) of the Government Code, was accomplished in a variety of ways. Outreach was conducted in the form of in-person interviews with stakeholders including several housing-related non-profits and organizations that provide services to low income families and individuals in the City; and with parties interested in the Housing Element process, including property owners and community groups such as the Concerned Citizens of Cupertino and neighborhood groups. Below are some examples of outreach and noticing conducted as part of the Housing Element update.

- Notice postcard sent to every postal address in the City.
- Joint Housing Commission and Planning Commission workshop – January 23, 2014
- Housing Commission Workshop – February 12, 2014
- Open House – February 19, 2014, September 16, 2014
- Study Session held with Planning Commission – February 19, 2014
- Study Session held with City Council – March 3, 2014
- Housing Commission meeting on housing policy – March 19, 2014
- Joint Planning Commission/City meeting on housing policy – April 1, 2014
- Newspaper notices.
- Notices sent to all prospective housing element site property owners prior to City Council authorization to commence environmental review.
- Notices sent to all prospective housing element site property owners prior to Planning Commission and City Council prioritization of the sites for HCD review.
- Webpage hosted focusing on the Housing Element Update process.

- Notice of website additions and Workshop reminders e-mailed to over 300 Housing Element website subscribers.
- Staff presentations at the Chamber of Commerce.
- Housing Commission Meeting – August 28, 2014
- Planning Commission Hearing – October 14, 2014 and October 20, 2014
- City Council hearing to receive public comment – November 10, 2014
- Community Workshop – November 20, 2014
- City Council Hearings – December 2, 2014 and December 3-4, 2014

The City's outreach also included stakeholder meetings with non-profit and for-profit housing developers, building industry trade groups, architects, planners, and affordable housing funders. The Housing Element update process in the City has involved a number of groups and individuals in the process of reviewing current housing conditions and needs and considering potential housing strategies. Two public workshops were held at Housing Commission meeting and at a Joint Planning Commission Housing Commission meeting. In addition, one publicly noticed Planning Commission Study Session was held and included opportunity for public comment. Feedback from these study sessions and public workshops was used to identify needs, assess constraints and develop draft programs for the Housing Element update, and are included in Section 1.3 of Appendix A of the General Plan.

IV. FINDINGS

The findings, recommendations, and statement of overriding considerations set forth below (the "Findings") are made and adopted by the Cupertino City Council as the City's findings under CEQA and the State CEQA Guidelines relating to the Project. The Findings provide the written analysis and conclusions of this City Council regarding the Project's environmental impacts, mitigation measures, alternatives to the Project, and the overriding considerations that support approval of the Project despite any remaining environmental effects it may have.

These findings summarize the environmental determinations of the Final EIR with regard to project impacts before and after mitigation, and do not attempt to repeat the full analysis of each environmental impact contained in the Final EIR. Instead, these findings provide a summary description of and basis for each impact conclusion identified in the Final EIR, describe the applicable mitigation measures identified in the Final EIR, and state the City's findings and rationale about the significance of each impact following the adoption of mitigation measures. A full explanation of these environmental findings and conclusions can be found in the Final EIR, and these findings hereby incorporate by reference the

discussion and analysis in the Final EIR supporting the Final EIR's determinations regarding mitigation measures and the Project's impacts.

When evaluating cumulative impacts, CEQA allows the use of either a list of past, present, and probable future projects, including projects outside the control of the lead agency, or a summary of projections in an adopted planning document. The cumulative impacts analysis in the Final EIR uses the projections approach and takes into account growth from the Project within the Cupertino city boundary and Sphere of Influence (SOI), in combination with impacts from projected growth in the rest of Santa Clara County and the surrounding region, as forecast by the Association of Bay Area Governments (ABAG).

In adopting mitigation measures, below, the City intends to adopt each of the mitigation measures identified in the Final EIR. Accordingly, in the event a mitigation measure identified in the Final EIR has been inadvertently omitted from these findings, such mitigation measure is hereby adopted and incorporated into the Project in the findings below by reference. In addition, in the event the language of a mitigation measure set forth below fails to accurately reflect the mitigation measure in the Final EIR due to a clerical error, the language of the mitigation measure as set forth in the Final EIR shall control unless the language of the mitigation measure has been specifically and expressly modified by these findings.

Sections V and VI, below, provide brief descriptions of the impacts that the Final EIR identifies as either significant and unavoidable or less than significant with adopted mitigation. These descriptions also reproduce the full text of the mitigation measures identified in the Final EIR for each significant impact.

V. SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS AND DISPOSITION OF RELATED MITIGATION MEASURES RESULTING IN SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS

The Final EIR identifies the following significant and unavoidable adverse impacts associated with the approval of the Project, some of which can be reduced, although not to a less-than-significant level, through implementation of mitigation measures identified in the Final EIR. Public Resources Code § 21081(a)(1). In some cases, the City cannot require or control implementation of mitigation measures for certain impacts because they are within the responsibility and jurisdiction of other public agencies. Public Resources Code § 21081(a)(2). Therefore, as explained below, some impacts will remain significant and unavoidable notwithstanding adoption of feasible mitigation measures. To the extent that these mitigation measures will not mitigate or avoid all significant effects on the environment, and because the City cannot require mitigation measures that are within the responsibility and jurisdiction of other public agencies to be adopted or implemented by those agencies, it is hereby determined that any remaining significant and unavoidable adverse impacts are acceptable for the reasons specified in Section XII, below. Public

Resources Code § 21081(a)(3). As explained in Section IX, below, the findings in this Section V are based on the Final EIR, the discussion and analysis in which is hereby incorporated in full by this reference.

A. Impact AQ-1: Implementation of the Project would conflict with or obstruct implementation of the applicable air quality plan.

The Final EIR finds that while the Project would support the primary goals of the 2010 Bay Area Clean Air Plan, the buildout of the Project would conflict with the BAAQMD Bay Area Clean Air Plan goal for community-wide VMT to increase at a slower rate compared to population and employment growth. The rate of growth in VMT would exceed the rate of population and employment growth, resulting in a substantial increase in regional criteria air pollutant emissions in Cupertino.

There are no mitigation measures to reduce this impact to a less-than-significant level. Policies and development standards in the Project would lessen the impact, but due to the level of growth forecast in the city and the programmatic nature of the Project, the impact would be significant and unavoidable.

B. Impact AQ-2: Implementation of the Project would violate any air quality standard or contribute substantially to an existing or projected air quality violation.

The Final EIR finds that future development under the Project would result in a substantial long-term increase in criteria air pollutants over the 26-year General Plan horizon. Criteria air pollutant emissions would be generated from on-site area sources (e.g., fuel used for landscaping equipment, consumer products), vehicle trips generated by the project, and energy use (e.g., natural gas used for cooking and heating). Because cumulative development within the City of Cupertino could exceed the regional significance thresholds, the Project could contribute to an increase in health effects in the basin until such time as the attainment standards are met in the San Francisco Bay Area Air Basin (SFBAAB). The impact is considered significant and unavoidable.

Implementation of Mitigation Measures AQ-2a and AQ-2b, set forth below, which are hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. Due to the programmatic nature of the Project, no additional mitigation measures are available beyond Mitigation Measures AQ-2a and AQ-2b; therefore, the impact would be significant and unavoidable.

Mitigation Measure AQ-2a:

As part of the City's development approval process, the City shall require applicants for future development projects to comply with the current Bay Area Air Quality Management District's basic control measures for reducing construction emissions of PM10.

Mitigation Measure AQ-2b:

As part of the City's development approval process, the City shall require applicants for future development projects that could generate emissions in excess of the Bay Area Air Quality Management District's (BAAQMDs) current significance thresholds during construction, as determined by project-level environmental review, when applicable, to implement the current BAAQMD construction mitigation measures (e.g. Table 8-3 of the BAAQMD CEQA Guidelines) or any construction mitigation measures subsequently adopted by the BAAQMD.

C. Impact AQ-3: Implementation of the Project would result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

The Final EIR finds that the Project will combine with regional growth within the air basin to result in a cumulatively considerable net increase of pollutants for the SFBAAB, which is currently designated a nonattainment area for California and National O_3, California and National $PM_{2.5}$, and California PM_{10} ambient air quality standards (AAQS). Any project that produces a significant regional air quality impact in an area that is in nonattainment adds to the cumulative impact. Mitigation measures AQ-2a and AQ-2b, set forth and incorporated above, would reduce impacts to the extent feasible, but the Project's impacts would remain significant and unavoidable.

There are no mitigation measures to reduce the impact to a less-than-significant level. Air pollutant emissions associated with the Project would result in a cumulatively considerable contribution to air quality impacts, and the Project's impacts would be significant and unavoidable.

D. Impact AQ-6: Implementation of the Project would cumulatively contribute to air quality impacts in the San Francisco Bay Area Air Basin.

As described in the discussion of Impact AQ-3, the Final EIR finds that regional air quality impacts will be significant. Implementation of the Project, in combination with past, present, and reasonably foreseeable projects, would result in a significant cumulative impact with respect to air quality even with the applicable regulations, as well as the Mitigation Measures AQ-2a, AQ-2b, AQ-4a and AQ-4b and the General Plan policies outlined in Impact AQ-1 through AQ-5. Therefore, this cumulative impact would be significant and unavoidable.

There are no mitigation measures to reduce the impact to a less-than-significant level. Implementation of Mitigation Measures AQ-2a, AQ-2b, AQ-4a and AQ-4b and the General Plan policies outlined in Impact AQ-1 through AQ-5, would lessen the impact, but not to a

less-then-significant level. Because the San Francisco Bay Area Air Basin is currently designated as a nonattainment area for California and National O_3, California and National $PM_{2.5}$, and California PM_{10} AAQS , the Project's cumulative impact would be significant and unavoidable.

E. Impact NOISE-3: Implementation of the Project would result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

The Final EIR finds that implementation of the Project would have a significant impact if it results in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the Project. The Final EIR anticipates that there would be substantial permanent increases to ambient noise levels throughout Cupertino as a result of implementation of the Project and ongoing regional growth, and that these increases would result primarily from increases in transportation-related noise, especially noise from automobile traffic.

Although the Project contains policies that could in certain cases reduce or prevent significant increases in ambient noise at sensitive land uses upon implementation (e.g., noise-reducing technologies, rubberized asphalt, soundwalls, berms, and improved building sound-insulation), the measures described in these policies would not be universally feasible, and some of the most effective noise-attenuation measures, including sound walls and berms, would be infeasible or inappropriate in a majority of locations where sensitive land uses already exist.

There are no mitigation measures to reduce the impact to a less-than-significant level. All conceivable mitigations would be either economically impractical, scientifically unachievable, outside the City's jurisdiction, and/or inconsistent with City planning goals and objectives. Therefore, even after the application of relevant, feasible regulations and General Plan policies, the impact to ambient noise levels would remain significant and unavoidable.

F. Impact NOISE-5: Implementation of the Project, in combination with past, present, and reasonably foreseeable projects, would result in significant cumulative impacts with respect to noise.

The Final EIR finds that the analysis of the Project, as described in the discussions of Impact NOISE-3, addresses cumulative noise impacts from implementation of the Project. Similarly, the noise contours and traffic-related noise levels developed for the Project include and account for regional travel patterns as they affect traffic levels in the City. Thus, the future noise modeling which served as the foundation for the overall Project analysis was based on future, cumulative conditions, and finds that implementation of the Project would result in significant cumulative impacts.

The Final EIR finds that even after the application of pertinent policies and strategies of the General Plan Amendment cumulative noise impacts of the Project, as described in the discussion of Impact NOISE-3, would remain significant and unavoidable. Thus, implementation of the Project would result in a significant and unavoidable cumulative impact with respect to noise.

There are no feasible mitigation measures to reduce the impact to a less-than-significant level. As explained in the discussion of Impact NOISE-3, all conceivable cumulative noise mitigations would be economically impractical, scientifically unachievable, outside the City's jurisdiction, and/or inconsistent with City planning goals and objectives, and would be infeasible. Therefore, even after the application of relevant, feasible regulations and General Plan policies, the cumulative impact would remain significant and unavoidable.

G. Impact TRAF-1: Implementation of the Project would conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

The Final EIR finds that implementation of the Project would generate additional motor vehicle trips on the local roadway network, resulting in significant impacts to sixteen (16) out of 41 study intersections during at least one of the AM or PM peak hours. See Draft EIR, Table 4.13-13.[7]

Implementation of Mitigation Measure TRAF-1, set forth below, which is hereby adopted and incorporated into the Project, would secure a funding mechanism for future roadway and infrastructure improvements that are necessary to mitigate impacts from future projects based on then current standards, but not to a less-than-significant level. Impacts would remain significant and unavoidable because the City cannot guarantee improvements at these intersections at this time. This is in part because the nexus study has yet to be prepared and because some of the impacted intersections are within the jurisdiction of the City of Sunnyvale, the City of Santa Clara, and Caltrans. The City will continue to cooperate with these jurisdictions to identify improvements that would reduce or minimize the impacts to intersections and roadways as a result of implementation of future development projects in Cupertino, but, because many of the improvements in Mitigation Measure TRAF-1 are within the responsibility and jurisdiction of other agencies and not the City of Cupertino, this impact would remain significant and unavoidable.

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[7] Following completion of the Draft EIR, the impacts to Intersection #29 were determined to be less-than-significant rather than significant. See Supplemental Text Revisions Memo.

Mitigation Measure TRAF-1:

The City of Cupertino shall commit to preparing and implementing a Transportation Mitigation Fee Program to guarantee funding for roadway and infrastructure improvements that are necessary to mitigate impacts from future projects based on the then current City standards. As part of the preparation of the Transportation Mitigation Fee Program, the City shall also commit to preparing a "nexus" study that will serve as the basis for requiring development impact fees under AB 1600 legislation, as codified by California Code Government Section 66000 et seq., to support implementation of the Project. The established procedures under AB 1600 require that a "reasonable relationship" or nexus exist between the transportation improvements and facilities required to mitigate the transportation impacts of new development pursuant to the Project. The following examples of transportation improvements and facilities would reduce impacts to acceptable level of service standards and these, among other improvements, could be included in the development impact fees nexus study:

- ***SR 85 Northbound Ramps and Stevens Creek Boulevard*** *(#2): An exclusive left-turn lane for the northbound leg of the intersection (freeway off-ramp) at the intersection of SR 85 and Stevens Creek Boulevard would result in one left-turn lane, one all-movement lane, and one right turn lane. The additional lane could be added within the existing Caltrans right-of-way.*

- ***Stelling Road and Stevens Creek Boulevard*** *(#3): The addition of a second exclusive left-turn lane for the eastbound leg of the intersection from Stevens Creek Boulevard to northbound Stelling Road, which could be accomplished by reworking the median. Right turns would share the bike lane.*

- ***Sunnyvale-Saratoga Road/De Anza Boulevard and Homestead Road*** *(#5): Widen De Anza Boulevard to four lanes in each direction or the installation of triple left-turn lanes.*

- ***De Anza Boulevard and I-280 Northbound Ramp*** *(#6): Restriping of De Anza Boulevard in the southbound direction to provide room for right turn vehicles to be separated from through traffic may be required. The bike lane would be maintained, and right turns would occur from the bike lane. The right turns would continue to be controlled by the signal and would need to yield to pedestrians.*

- ***De Anza Boulevard and Stevens Creek Boulevard*** *(#8): Restripe westbound Stevens Creek Boulevard to provide room for right turn vehicles to be separated from through vehicles may be required. The right turn vehicles will share the bike lane and will still be controlled by the traffic signal. Paint a bike box at the front of the lane to provide bikes a place to wait at red lights. The pedestrian crossings will not be affected may enhance the bicycling experience.*

- ***De Anza Boulevard and McClellan Road/Pacifica Drive*** *(#9): Realign the intersection that is currently offset resulting in inefficient signal timing such that the McClellan Road and Pacifica Drive legs are across from each other may be required. In addition, double left turn lanes*

may be required to be added to De Anza Boulevard with sections of double lanes on McClellan Road and Pacifica Drive to receive the double left turn lanes. These improvements will require the acquisition of right-of-way and demolition of existing commercial buildings. However, some existing right-of-way could be abandoned, which would reduce the net right-of-way take.

- ***Wolfe Road and Homestead Road (#16):*** *The addition of a third southbound through lane to the southbound approach of the intersection of Wolfe Road and Homestead Road may be required, as well as the addition of a southbound exclusive right-turn lane. Three southbound receiving lanes on the south side of the intersection currently exist. An additional westbound through lane for a total of three through-movement lanes, an additional receiving lane on Homestead westbound to receive the additional through lane, as well as the addition of a westbound exclusive right-turn lane may be required. This will require widening Homestead Road. An additional eastbound through lane for a total of three through-movement lanes, an additional receiving lane on Homestead eastbound to receive the additional through lane, as well as the addition of an eastbound exclusive left-turn lane for a total of two left-turn lanes may be required. These improvements will require the acquisition of right-of-way and demolition of parking areas.*

- ***Wolfe Road and I-280 Northbound Ramp (#18):*** *The Apple Campus 2 project will be adding a third northbound through lane starting at the northbound on ramp. This third lane will need to be extended farther south to effectively serve the additional northbound traffic due to the General Plan development. This could require widening the Wolfe Road overcrossing. Right-of-way acquisition may be required. In accordance with Caltrans procedures, a Project Study Report (PSR) will need to be prepared. The PSR will look at all interchange improvement options, which may include widening the overcrossing and may also include a redesign of the interchange to go from a partial cloverleaf design to a diamond design. This could help with heavy volumes in the right lane, which contributes to the level-of-service deficiency.*

- ***Wolfe Road and I-280 Southbound Ramp (#19):*** *An additional through lane for a total of three through-movement lanes for the northbound leg of the intersection at the Wolfe Road and I-280 Southbound Ramp may be required. This additional northbound through lane would require widening to the freeway overcrossing. In addition to widening the overcrossing, the City may wish to pursue a redesign of the interchange to go from a partial cloverleaf design to a diamond design. This could help with the problem of heavy volume in the right lane, which contributes to the level of service deficiency.*

- ***Wolfe Road/Miller Avenue and Stevens Creek Boulevard (#21):*** *The restriping of the westbound leg of the intersection to provide room so that right turn vehicles can be separated from through vehicles may be required. Right turn vehicles would share the bike lane. Right turn vehicles would still be controlled by the signal, and pedestrian crossings would not be affected. Paint a bike box at the front of the lane to provide bikes a place to wait at red lights may enhance the bicycling experience.*

- ***North Tantau Avenue/Quail Avenue and Homestead Road (#24)**: Restriping of the southbound leg of the intersection (Quail Avenue) to provide a separate left turn lane may be required. This will require the removal of on-street parking near the intersection. The level-of-service calculations show that with implementation of these improvements, the intersection would operate at an acceptable LOS D.*

- ***Tantau Avenue and Stevens Creek Boulevard (#27):** The addition of a separate left-turn lane to northbound Tantau Avenue may be required. Right-of-way acquisition and demolition of existing commercial buildings would be required.*

- ***Stevens Creek Boulevard and Agilent Technologies Driveway (#30):** The restriping of the westbound leg of the intersection to provide room so that right turn vehicles can be separated from through vehicles may be required. Right turn vehicles would share the bike lane. Right turn vehicles would still be controlled by the signal, and pedestrian crossings would not be affected. Paint a bike box at the front of the lane to provide bikes a place to wait at red lights may enhance the bicycling experience.*

- ***Lawrence Expressway Southbound Ramp and Stevens Creek Boulevard (CMP, County)(#31)**: The addition of a second right-turn lane for the southbound leg of the intersection at the Lawrence Expressway Southbound Ramp and Stevens Creek Boulevard may be required. Both lanes would need to be controlled by the signal, and disallow right turns on red. Right-of-way acquisition may be required.*

- ***Lawrence Expressway Northbound Ramp and Stevens Creek Boulevard (CMP, County) (#32):** Redesign of the northbound leg of the intersection at the Lawrence Expressway Northbound Ramp and Stevens Creek Boulevard to provide one through-movement lane, and one exclusive right-turn lane may be required. Right-of-way acquisition would be required.*

The fees shall be assessed when there is new construction, an increase in square footage in an existing building, or the conversion of existing square footage to a more intensive use. The fees collected shall be applied toward circulation improvements and right-of-way acquisition. The fees shall be calculated by multiplying the proposed square footage, dwelling unit, or hotel room by the appropriate rate. Traffic mitigation fees shall be included with any other applicable fees payable at the time the building permit is issued. The City shall use the traffic mitigation fees to fund construction (or to recoup fees advanced to fund construction) of the transportation improvements identified above, among other things that at the time of potential future development may be warranted to mitigate traffic impacts.

H. Impact TRAF 2: Implementation of the Project would conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

The Final EIR finds that of the 41 intersections studied in the EIR traffic analysis, 21 are included in Santa Clara County's Congestion Management Program (CMP). See Table 4.3-13, Draft EIR. The Project would result in significant impacts to 11 CMP intersections during at least one of the peak hours. Implementation of Mitigation Measure TRAF-1, set forth and incorporated above, would reduce these impacts, but not to a less-than-significant level.

Mitigation Measure:

Implement Mitigation Measure TRAF-1.

As described in the discussion of Impact TRAF-1, because many of the improvements in Mitigation Measure TRAF-1 are within the responsibility and jurisdiction of other agencies and not the City of Cupertino, these impacts would remain significant and unavoidable.

I. Impact TRAF-6: Implementation of the Project, in combination with past, present, and reasonably foreseeable projects, would result in additional cumulatively considerable impacts.

The Final EIR finds that the analysis of the Project, as described in the discussions of Impact TRAF-1 and Impact TRAF-2, addresses cumulative impacts to the transportation network in the city and its surroundings; accordingly, cumulative impacts would be the same as Project-specific impacts. Therefore, the cumulative impacts to the City's transportation network resulting from the Project would be significant and unavoidable.

Mitigation Measure:

Implement Mitigation Measure TRAF-1.

As discussed under TRAF-1, because many of the improvements in Mitigation Measure TRAF-1 are within the responsibility and jurisdiction of other agencies and not the City of Cupertino, this cumulative impact would remain significant and unavoidable.

VI. SIGNIFICANT ADVERSE IMPACTS IDENTIFIED IN THE FINAL EIR THAT ARE REDUCED TO A LESS-THAN-SIGNIFICANT LEVEL BY MITIGATION MEASURES ADOPTED AND INCORPORATED INOT THE PROJECT

The Final EIR identifies the following significant impacts associated with the Project. It is hereby determined that the impacts addressed by these mitigation measures will be mitigated to a less than significant level or avoided by adopting and incorporating these mitigation measures conditions into the Project. Public Resources Code § 21081(a)(1). As explained in Section IX, below, the findings in this Section VI are based on the Final EIR, the discussion and analysis in which is hereby incorporated in full by this reference.

A. Impact AQ-4: Implementation of the Project would expose sensitive receptors to substantial concentrations of air pollution.

The Final EIR finds that the Project could result in locating sensitive receptors in proximity to major sources of air pollution or the siting of new sources of air pollution in proximity to sensitive receptors in the city. Nonresidential land uses that generate truck trips may generate substantial quantities of air pollutants within 1,000 feet of off-site sensitive receptors. In addition, proposed sensitive land uses in Cupertino may be within 1,000 feet of major sources of air pollutants, which would create a significant and unavoidable impact.

Implementation of the Mitigation Measures AQ-4a and AQ-4b, set forth below, which are hereby adopted and incorporated into the Project, would reduce this impact to a less-than-significant level.

Mitigation Measure AQ-4a:

Applicants for future non-residential land uses within the city that: 1) have the potential to generate 100 or more diesel truck trips per day or have 40 or more trucks with operating diesel-powered Transport Refrigeration Units (TRUs), and 2) are within 1,000 feet of a sensitive land use (e.g. residential, schools, hospitals, nursing homes), as measured from the property line of the Project to the property line of the nearest sensitive use, shall submit a health risk assessment (HRA) to the City of Cupertino prior to future discretionary Project approval. The HRA shall be prepared in accordance with policies and procedures of the State Office of Environmental Health Hazard Assessment and the Bay Area Air Quality Management District. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E-06), $PM_{2.5}$ concentrations exceed 0.3 $\mu g/m^3$, or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that Best Available Control Technologies for Toxics (T-BACTs) are capable of reducing potential cancer and noncancer risks to an acceptable level, including appropriate enforcement mechanisms. T-BACTs may include but are not limited to:

- *Restricting idling on-site.*
- *Electrifying warehousing docks.*
- *Requiring use of newer equipment and/or vehicles.*
- *Restricting offsite truck travel through the creation of truck routes.*

T-BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the Project.

Mitigation Measure AQ-4b:

Applicants for residential and other sensitive land use projects (e.g. hospitals, nursing homes, day care centers) in Cupertino within 1,000 feet of a major sources of TACs (e.g. warehouses, industrial areas, freeways, and roadways with traffic volumes over 10,000 vehicle per day), as measured from the property line of the project to the property line of the source/edge of the nearest travel lane, shall submit a health risk assessment (HRA) to the City of Cupertino prior to future discretionary Project approval. The HRA shall be prepared in accordance with policies and procedures of the State Office of Environmental Health Hazard Assessment (OEHHA) and the Bay Area Air Quality Management District. The latest OEHHA guidelines shall be used for the analysis, including age sensitivity factors, breathing rates, and body weights appropriate for children age 0 to 16 years. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E-06), PM2.5 concentrations exceed 0.3 μg/m3, or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e. below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms. Measures to reduce risk may include but are not limited to:

- *Air intakes located away from high volume roadways and/or truck loading zones.*
- *Heating, ventilation, and air conditioning systems of the buildings provided with appropriately sized Maximum Efficiency Rating Value (MERV) filters.*

Mitigation measures identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the Project. The air intake design and MERV filter requirements shall be noted and/or reflected on all building plans submitted to the City and shall be verified by the City's Planning Division.

B. Impact BIO-1: Implementation of the Project would have a substantial adverse effect, either directly or through habitat modifications, on a plant or animal population, or essential habitat, defined as a candidate, sensitive or special-status species.

The Final EIR finds that some special-status bird species such as Cooper's hawk and white-tailed kite could utilize the remaining riparian corridors and heavily wooded areas for nesting, dispersal and other functions when they pass through urbanized areas. More common birds protected under MBTA may nest in trees and other landscaping on the Project Component locations. Given the remote potential for occurrence of nesting birds at one or more of the Project Component locations and possibility that nests could be inadvertently destroyed or nests abandoned as a result of construction activities, this would be considered a potentially significant impact.

Implementation of Mitigation Measure BIO-1, set forth below, which is hereby adopted and incorporated into the Project, would avoid or reduce this impact to a less-than-significant level.

Mitigation Measure BIO-1:

Nests of raptors and other birds shall be protected when in active use, as required by the federal Migratory Bird Treaty Act and the California Department of Fish and Game Code. If construction activities and any required tree removal occur during the breeding season (February 1 and August 31), a qualified biologist shall be required to conduct surveys prior to tree removal or construction activities. Preconstruction surveys are not required for tree removal or construction activities outside the nesting period. If construction would occur during the nesting season (February 1 to August 31), preconstruction surveys shall be conducted no more than 14 days prior to the start of tree removal or construction. Preconstruction surveys shall be repeated at 14-day intervals until construction has been initiated in the area after which surveys can be stopped. Locations of active nests containing viable eggs or young birds shall be documented and protective measures implemented under the direction of the qualified biologist until the nests no longer contain eggs or young birds. Protective measures shall include establishment of clearly delineated exclusion zones (i.e. demarcated by identifiable fencing, such as orange construction fencing or equivalent) around each nest location as determined by a qualified biologist, taking into account the species of birds nesting, their tolerance for disturbance and proximity to existing development. In general, exclusion zones shall be a minimum of 300 feet for raptors and 75 feet for passerines and other birds. The active nest within an exclusion zone shall be monitored on a weekly basis throughout the nesting season to identify signs of disturbance and confirm nesting status. The radius of an exclusion zone may be increased by the qualified biologist if project activities are determined to be adversely affecting the nesting birds. Exclusion zones may be reduced by the qualified biologist only in consultation with California Department of Fish and Wildlife. The protection measures shall remain in effect until the young have left the nest and are foraging independently or the nest is no longer active.

C. Impact BIO-6: Implementation of the Project, in combination with past, present, and reasonably foreseeable projects, would result in significant cumulative impacts with respect to biological resources.

The Final EIR finds that implementation of the Project could result in further conversion of existing natural habitats to urban and suburban conditions, limiting the existing habitat values of the surrounding area and potentially resulting in significant cumulative impacts with respect to biological resources.

With implementation of Mitigation Measure BIO-1, set forth and incorporated above, the Project would not make a cumulatively considerable contribution to this cumulative impact, and the impact would be less than significant.

Mitigation Measure:

Implement Mitigation Measure BIO-1.

D. Impact HAZ-4: Implementation of the Project would be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.

The Final EIR finds that because hazardous materials are known to be present in soil, soil gas, and/or groundwater due to past land uses at certain sites that may be redeveloped as part of the Project, the direct contact, inhalation, or ingestion of hazardous materials could potentially cause adverse health effects to construction workers and future site users. The severity of health effects would depend on the contaminant(s), concentration, use of personal protective equipment during construction, and duration of exposure. The disturbance and release of hazardous materials during earthwork activities, if present, could pose a hazard to construction workers, nearby receptors, and the environment and impacts could be potentially significant.

Implementation of Mitigation Measures HAZ-4a and HAZ-4b, set forth below, which are hereby adopted and incorporated into the Project, would avoid or reduce this impact to a less-than-significant level.

Mitigation Measure HAZ-4a:

Construction at the sites with known contamination shall be conducted under a project-specific Environmental Site Management Plan (ESMP) that is prepared in consultation with the Regional Water Quality Control Board (RWQCB) or the Department of Toxic Substances Control (DTSC), as appropriate. The purpose of the ESMP is to protect construction workers, the general public, the environment, and future site occupants from subsurface hazardous materials previously identified at the site and to address the possibility of encountering unknown contamination or hazards in the subsurface. The ESMP shall summarize soil and groundwater analytical data collected on the project site during past investigations; identify management options for excavated soil and groundwater, if contaminated media are encountered during deep excavations; and identify monitoring, irrigation, or other wells requiring proper abandonment in compliance with local, State, and federal laws, policies, and regulations.

The ESMP shall include measures for identifying, testing, and managing soil and groundwater suspected of or known to contain hazardous materials. The ESMP shall: 1) provide procedures for evaluating, handling, storing, testing, and disposing of soil and groundwater during project excavation and dewatering activities, respectively; 2) describe required worker health and safety provisions for all workers potentially exposed to hazardous materials in accordance with State and federal worker safety regulations; and 3) designate personnel responsible for implementation of the ESMP.

Mitigation Measure HAZ-4b:

For those sites with potential residual contamination in soil, gas, or groundwater that are planned for redevelopment with an overlying occupied building, a vapor intrusion assessment shall be performed by a licensed environmental professional. If the results of the vapor intrusion assessment indicate the potential for significant vapor intrusion into an occupied building, project design shall include vapor controls or source removal, as appropriate, in accordance with regulatory agency requirements. Soil vapor mitigations or controls could include vapor barriers, passive venting, and/or active venting. The vapor intrusion assessment and associated vapor controls or source removal can be incorporated into the ESMP (Mitigation Measure HAZ-4a).

E. Impact HAZ-7: Implementation of the Project, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to hazards and hazardous materials.

The Final EIR takes into account growth projected by the Project within the Cupertino city boundary and Sphere of Influence (SOI), in combination with impacts from projected growth in the rest of Santa Clara County and the surrounding region, as forecast by the Association of Bay Area of Governments (ABAG). Potential cumulative hazardous materials impacts could arise from a combination of the development of the Project together with the regional growth in the immediate vicinity of the Project Study Area. As discussed under Impact HAZ-4, disturbance and release of hazardous materials during earthwork activities, if present, could pose a hazard to construction workers, nearby receptors, and the environment and impacts could be potentially significant.

With implementation of Mitigation Measures HAZ-4a and HAZ-4b, set forth and incorporated above, in conjunction with compliance with General Plan policies and strategies, other local, regional, State, and federal regulations, the Project would not make a cumulatively considerable contribution to this cumulative impact, and the impact would be less than significant.

Mitigation Measure:

Implement Mitigation Measures HAZ-4a and HAZ-4b.

F. Impact UTIL-6: Implementation of the Project would result in a determination by the wastewater treatment provider, which serves, or may serve the project, that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Buildout of the Project would have a significant impact if future projected demand exceeds the wastewater service capacity of the San Jose/Santa Clara Water Pollution Control Plan

(SJ/SCWPCP) or the Sunnyvale Water Pollution Control Plan (SWPCP), or the Cupertino Sanitary District (CSD) or City of Sunnyvale collection systems.

Implementation of Mitigation Measures UTIL-6a, UTIL-6b, and UTIL-6c, set forth below, which are hereby adopted and incorporated into the Project, would avoid or reduce this impact to a less-than-significant level.

Mitigation Measure UTIL-6a:

The City shall work with the Cupertino Sanitary District to increase the available citywide treatment and transmission capacity to 8.65 million gallons per day, or to a lesser threshold if studies justifying reduced wastewater generation rates are approved by CSD as described in Mitigation Measure UTIL-6c.

Mitigation Measure UTIL-6b:

The City shall work to establish a system in which a development monitoring and tracking system to tabulate cumulative increases in projected wastewater generation from approved projects for comparison to the Cupertino Sanitary District's treatment capacity threshold with San Jose/Santa Clara Water Pollution Control Plant is prepared and implemented. If it is anticipated that with approval of a development project the actual system discharge would exceed the contractual treatment threshold, no building permits for such project shall be issued prior to increasing the available citywide contractual treatment and transmission capacity as described in Mitigation Measure UTIL-6a.

Mitigation Measure UTIL-6c:

The City shall work with the Cupertino Sanitary District to prepare a study to determine a more current estimate of the wastewater generation rates that reflect the actual development to be constructed as part of Project implementation. The study could include determining how the green/LEED certified buildings in the City reduce wastewater demands.

G. Impact UTIL-7: Implementation of the Project, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to wastewater treatment.

The Final EIR finds that buildout of the Project would generate a minor increase in the volume of wastewater delivered for treatment at SJ/SCWPCP and SWPCP, representing less than 1 percent of the available treatment capacity at the SJ/SCWPCP and SWPCP, and it would occur incrementally over a period of 26 years. Based on the recent trends of diminishing wastewater treatment demand and the projected population growth in the service areas, cumulative wastewater treatment demand over the Project buildout period is

far below the excess capacity of the SJ/SCWPCP and SWPCP. Because the cumulative demand would not substantially impact the existing or planned capacity of the wastewater treatment systems, which have sufficient capacity for wastewater that would be produced by the Project, the construction of new wastewater treatment facilities would not be necessary.

With implementation of Mitigation Measured UTIL-6a, UTIL-6b and UTIL-6c, set forth and incorporated above, cumulative development combined with the Project would not exceed wastewater treatment requirements. Therefore, the Project would not make a cumulatively considerable contribution to this cumulative impact, and the impact would be less than significant.

Mitigation Measure:

Implement Mitigation Measures UTIL-6a, UTIL-6b, and UTIL-6c.

H. Impact UTIL-8: The Project would not be served by a landfill(s) with sufficient permitted capacity to accommodate the Project's solid waste disposal needs.

The Final EIR finds that anticipated rates of solid waste disposal would have a less-than-significant impact with regard to target disposal rates, and that the City would continue its current recycling ordinances and zero-waste policies. Nevertheless, the 2023 termination of the agreement between the Newby Island Landfill facility, as well as that facility's estimated closure date in 2025, would result in insufficient solid waste disposal capacity at buildout of the Project, resulting in a significant impact.

Implementation of Mitigation Measure UTIL-8, set forth below, which is hereby adopted and incorporated into the Project, would avoid or reduce this impacts to a less-than-significant level.

Mitigation Measure UTIL-8:

The City shall continue its current recycling ordinances and zero-waste policies in an effort to further increase its diversion rate and lower its per capita disposal rate. In addition, the City shall monitor solid waste generation volumes in relation to capacities at receiving landfill sites to ensure that sufficient capacity exists to accommodate future growth. The City shall seek new landfill sites to replace the Altamont and Newby Island landfills, at such time that these landfills are closed.

I. Impact UTIL-10: Implementation of the Project, in combination with past, present and reasonably foreseeable projects, would result in significant cumulative impacts with respect to solid waste.

The Final EIR finds that buildout of the Project will increase the quantity of solid waste for disposal. AB 939 established a goal for all California cities to provide at least 15 years of ongoing landfill capacity; however, growth from other cities in the region may exceed the growth that was taken into account when determining landfill capacity. Also, because the Newby Island Landfill facility, which currently takes approximately 92 percent of the City's solid waste, is expected to close in 2025, Cupertino may eventually experience insufficient landfill capacity to accommodate existing or increased population and employment levels. Although implementation of existing waste reduction programs and diversion requirements would reduce the potential for exceeding existing capacities of landfills, the potential lack of landfill capacity for disposal of solid waste would be a significant cumulative impact.

With implementation of Mitigation Measure UTIL-8, set forth and incorporated above, the Project would not make a cumulatively considerable contribution to this cumulative impact, and the impact would be less than significant.

Mitigation Measure

Implement Mitigation Measure UTIL-8.

VII. GROWTH INDUCING IMPACTS

An EIR is required to discuss growth inducing impacts, which consist of the ways in which the project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. State CEQA Guidelines § 15126.2(d); Public Resources Code § 21100(b)(5). Direct growth inducement would result, for example, if a project involves the construction of substantial new housing that would support increased population in a community or establishes substantial new permanent employment opportunities. This additional population could, in turn, increase demands for public utilities, public services, roads, and other infrastructure. Indirect growth inducement would result if a project stimulates economic activity that requires physical development or removes an obstacle to growth and development (e.g., increasing infrastructure capacity that would enable new or additional development). It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment. State CEQA Guidelines § 15126.2(d). Section 6.3 of the Draft EIR analyzes the growth inducing impacts of the Project. As explained in Section IX, below, the findings in this Section VII are based on the Final EIR, the discussion and analysis in which is hereby incorporated in full by this reference.

- Implementation of the Approved Project would directly induce population, employment and economic growth by identifying an office allocation of 2,000,000 square feet as part of redevelopment of the Vallco Shopping District site.

- State law requires the City to promote the production of housing to meet its Regional Housing Needs Allocation made by ABAG. The housing and commercial/ industrial

growth in Cupertino would allow the City to address its regional fair-share housing obligations. Implementation of the Project to the year 2040 would not result in residential development that was not accounted for in the 2005 General Plan because the General Plan has sufficient allocation to meet the residential allocation of 1,400 units on Housing Element sites. This would result in a total anticipated residential inventory of approximately 23,294 units by 2040.[8]

The Approved Project is considered growth inducing because it encourages new growth in the urbanized areas of Cupertino. Development in these areas would consist of infill development on underutilized sites, sites that have been previously developed, and sites that are vacant and have been determined to be suitable for development. However, because infrastructure is largely in place and commercial or office growth would be required to comply with the City's General Plan, Zoning regulations and standards for public services and utilities; secondary or indirect effects associated with this growth do not represent a new significant environmental impact which has not already been addressed in the individual resource chapters of this EIR.

VIII. ALTERNATIVES

The Final EIR analyzed four alternatives, examining the environmental impacts and feasibility of each alternative, as well as the ability of the alternatives to meet project objectives. The project objectives are listed in Chapter 3 (Project Description) of the Draft EIR; the potentially significant environmental effects of the Project, including feasible mitigation measures identified to avoid these impacts, are analyzed in Chapter 4 (Environmental Evaluation) of the Draft EIR; and the alternatives are described in detail in Chapter 5 (Alternatives to the Proposed Project) of the Draft EIR.

Brief summaries of the alternatives are provided below. A brief discussion of the Environmentally Superior Alternative follows the summaries of the alternatives. As explained in Section IX, below, the findings in this Section VII are based on the Final EIR, the discussion and analysis in which is hereby incorporated in full by this reference.

A. The No Project Alternative

CEQA requires evaluation of the "no project" alternative. State CEQA Guidelines § 15126.6(e). Consistent with State CEQA Guidelines section 15126.6(e)(3)(A), the No Project Alternative assumes that growth and development would continue to occur under the provisions of the current 2000-2020 General Plan, including the development allocations for office and commercial space, and hotel and residential unit allocations. Thus, no new development potential beyond what is currently permitted in the 2000-2020 General Plan would occur.

[8] Existing built/approved residential units was 21,399 units in 2013.

As shown in Draft EIR Table 5-1, the No Project Alternative would allow for the following new development allocations:

- **Office allocation: approximately 540,231 square feet** (no net increase from 2000-2020 General Plan)
- **Commercial allocation: approximately 701,413 square feet** (no net increase from 2000-2020 General Plan)
- **Hotel allocation: approximately 339 rooms** (no net increase from 2000-2020 General Plan)
- **Residential allocation: 1,895 units** (no net increase from 2000-2020 General Plan)

As discussed in Section 5.1.7 of the Draft EIR, the No Project Alternative would not achieve any of the City's project objectives, which are as follows, except that it would provide for the RHNA for the 20014-2022 planning period:

- Emphasize employment and a mix of economic development opportunities by replenishing, reallocating, and increasing city-wide office, commercial, and hotel, allocations in order to capture:
  - A share of the regional demand for office and hotel development, and
  - Retail sales tax leakage in the trade area.
- Address local needs and regional requirements for new housing, including affordable housing, in Cupertino by replenishing, re-allocating and increasing city-wide residential allocations to be consistent with 2040 Bay Area Plan projections to allow flexibility for the city when future state-mandated updates are required to the Housing Element.
- Update the Housing Element as required by State law.
- Creating opportunities for mixed-use development consistent with Regional Sustainable Communities Strategies for greenhouse gas emissions reductions as required by SB 375.
- Investing in improvement to adapt to climate change over time.
- Consider increased heights in key nodes and gateways, if proposed development provides retail development and benefits directly to the community.

- Update General Plan policies to implement multi-modal traffic standards as opposed to LOS thresholds currently identified. Balancing development objectives with transportation constraints and opportunities.

- Revitalize the Vallco Shopping District by adopting policies to support its redevelopment, so it becomes a cohesive, vibrant shopping and entertainment destination that serves both the region and the local community.

For the foregoing reasons, the No Project Alternative is hereby rejected as infeasible.

B. Land Use Alternative A

Land Use Alternative A identifies how growth would occur if the City largely continues the policies of the current 2005 General Plan, while making minor development allocation and boundary changes. The 2005 General Plan land use standards would continue to apply to the Vallco Shopping District site, and it would not be redeveloped in any substantial manner. Alternative A would increase city-wide office and hotel allocation but would not increase allocations for commercial and residential uses. No maximum height increases are proposed under this alternative.

As shown in Draft EIR Table 5-1, Land Use Alternative A would allow for the following new development allocations:

- **Office allocation: approximately 1,040,231 square feet** (net increase of 500,000 square feet from the 2000-2020 General Plan)

- **Commercial allocation: approximately 701,413 square feet** (no net increase from the 2000-2020 General Plan)

- **Hotel allocation: approximately 600 rooms** (net increase of 261 rooms from the 2000-2020 General Plan)

- **Residential: 1,895 units** (no net increase from the 2000-2020 General Plan)

As discussed in Section 5.2.8 of the Draft EIR, Alternative A would not achieve the project objectives concerning local needs and regional requirements for new housing, including affordable housing, in Cupertino, because it would not provide sufficient residential units to meet the City's Regional Housing Needs Allocation (RHNA) of 1,064 units minus 62, or 1,002 units. In order to fully comply with the RHNA, the City would need to provide a moderate surplus of 25% to 40% in addition to the 1,002 units or approximately 1,250 to 1,400 units. Alternative A only allows for a surplus of only eight units, however. Alternative A also would not make any progress toward increasing the allocation of residential units to accommodate Plan Bay Area projections for residential growth by 2040 (4,421 units).

Alternative A fails to meet project objectives with regard to reallocating, replenishing and increasing city-wide office, commercial and hotel allocations for purposes of economic development, because Alternative A does not allow for any commercial growth beyond that allocated under the 2000-2020 General Plan and allows in insufficient amount of office and hotel growth. Further, Alternative A does not meet the project objective to consider increased heights in key Nodes and Gateways, because no maximum height increases are proposed under this alternative.

Alternative A also does not meet the City's objective of creating mixed use development consistent with Plan Bay Area and SB 375, because it would not concentrate development in major transportation corridors to the same degree as Alternatives B and C. Alternative A does not envision a complete redevelopment for Vallco Shopping District that would involve adding office and residential uses as in Alternatives B and C and the Approved Project. This would not completely meet the project objective to revitalize the Shopping District so it becomes a cohesive, vibrant shopping and entertainment destination that serves both the region and the local community.

For the foregoing reasons, Land Use Alternative A is hereby rejected as infeasible.

C. Land Use Alternative B

Land Use Alternative B identifies how the City can focus development along major mixed-use corridors in order to create more complete commercial, office and entertainment areas, and to address mid-term housing needs. It would increase development allocations for office, commercial and hotel land uses in order to better capture retail sales leakage and regional demand for office development. Alternative B also envisions the transformation of the Vallco Shopping Mall into a retail, employment, housing and entertainment destination. Alternative B would allow for revised height standards at key Gateways and Nodes within Special Areas along major transportation corridors. Alternative B also would increase residential allocations to the amount necessary to meet the City's housing need of 1,002 units plus a moderate surplus of 25% to 40%, or approximately 1,250 to 1,400 units, but would increase the allocation of residential units to accommodate only 75 percent of Plan Bay Area projections for residential growth by 2040.

As shown in Draft EIR Table 5-1 and the Supplemental Text Revisions, Land Use Alternative B would allow for the following new development allocations:

- **Office allocation: approximately 2,540,231 square feet** (net increase of 2,000,000 square feet from the 2000-2020 General Plan)

- **Commercial allocation: approximately 1,343,679 square feet** (net increase of 0 square feet from 2000-2020 General Plan)[9]

- **Hotel allocation: approximately 839 rooms** (net increase of 500 rooms from the 2000-2020 General Plan)

- **Residential allocation: 3,316 units** (net increase of 1,421 units from the 2000-2020 General Plan)

While Alternative B meets all of the project objectives, as described in Section 5.3.8 of the Draft EIR, Alternative B would not go as far as Alternative C in meeting project objectives with regard to reallocating, replenishing and increasing city-wide commercial and hotel allocations for purposes of economic development, and replenishment of the residential allocation. Alternative B envisions that the Vallco Shopping District will be completely, but does not specifically allocate any development potential to that Special Area. Alternative B allows for approximately 500 fewer hotel rooms and approximately 500,000 square feet less office space allocation than the Approved Project, however.

The City commissioned a Market Study[10] which indicates that the City has a strong market for office, hotel room and residential development. An allocation of only 500 hotel rooms would not achieve the City's goal of capturing a share of the regional demand for hotel development.

For the foregoing reasons, Land Use Alternative B is hereby rejected as infeasible.

D. Land Use Alternative C

Land Use Alternative C identifies a way to transform the Vallco Shopping Mall into a locally and regionally significant retail, employment, housing and entertainment destination, and account for a large portion of the City's RHNA. Similar to the Approved Project, Alternative C envisions that the Vallco Shopping District will be completely redeveloped. In addition, under Alternative C, the Vallco area would become the "downtown" of

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[9] The EIR provided an analysis for the commercial development allocation of 1,343,679 square feet for Alternative C, which is an increase in commercial development allocation of 642,266 square feet over the remaining allocation of approximately 701,413 square feet in the 2020 General Plan; however, the additional 642,266 square footage does not constitute a net increase in commercial development in Cupertino during the planning period of the General Plan Amendment (through 2040). That is because the entire 642,266 square feet of the increased allocation would come from demolition of Vallco Shopping Center and rebuilding and/or relocating that existing commercial square footage to other sites. Due to the high vacancy rate at the Vallco Shopping Mall under existing conditions, however, the EIR conservatively analyzed the total commercial development allocation of 1,343,679 square feet (642,266 existing square feet + 701,413 new square feet).

[10] BAE Urban Economics, General Plan Amendment Market Study (February 13, 2014).

Cupertino, serving the mixed-use hub for residents, workers and the larger region. Alternative C would increase development allocations to levels higher than those that would be allowed under either Land Use Alternative A or Land Use Alternative B in order to fully capture retail sales leakage and regional demand for office and hotel development. Alternative C would allow for revised height standards at key Gateways and Nodes within Special Areas along major transportation corridors at heights greater than those allowed under Alternative B. The increases in heights and densities in key Nodes, Gateways and Sub-areas are consistent with the City's goals of concentrating development along the five mixed-use corridors. Alternative C also would increase residential allocations to the amount necessary to meet the City's housing need of 1,002 units plus a moderate surplus of 25% to 40%, or approximately 1,250 to 1,400 units, and would increase the allocation of residential units to accommodate 100 percent of Plan Bay Area projections for residential growth by 2040.

As shown in Draft EIR Table 5-1 and the Supplemental Text Revisions, Land Use Alternative C (analyzed as the "proposed Project" in the EIR) would allow for the following new development allocations:

- **Office allocations: approximately 4,040,231 square feet** (net increase of 3,500,000 square feet from the 2000-2020 General Plan)
- **Commercial allocation: approximately 1,343,679 square feet** (net increase of 0 square feet from the 2000-2020 General Plan)[11]
- **Hotel allocation: approximately 1,339 rooms** (net increase of 1,000 rooms from the 2000-2020 General Plan)
- **Residential allocation: 4,421 units** (net increase of 2,526 units from the 2000-2020 General Plan)

Land Use Alternative C would meet all of the project objectives.

Increased allocation of office and residential development would mean more jobs and, as people move to Cupertino to fill those jobs, a higher population. For example, Draft EIR Table 5-2 projects a 70 percent greater increase in jobs and a 75 percent greater increase in population under Alternative C compared to the increases under Alternative B. The increased development and population growth resulting from the Alternative C office allocation would have greater effects on the environment than the office allocation component of Alternative B. Alternative B would reduce air quality impacts, as described in the analysis of Impact AIR-1, because the Vehicle Miles Traveled (VMT) for Alternative B is lower and reduces the impact to less than significant. See Draft EIR Table 5.5. In categories where all of the alternatives were found to have significant and unavoidable impacts,

[11] See footnote 9, above.

namely air quality, noise, and traffic, Land Use C's office allocation would result in greater environmental impacts, as it represents the greatest amount of development, which would result in higher consumption of non-renewable resources, generate the greatest amount of waste and pollutants, and increase the demand of public facilities and infrastructure.

For the foregoing reasons, Land Use Alternative C is hereby rejected as infeasible.

E. Environmentally Superior Alternative

In addition to the discussion and comparison of impacts of the Planning Commission Recommendation and the Alternatives, Section 15126.6(e)(2) of the State CEQA Guidelines requires that an "environmentally superior" alternative be selected and the reasons for such a selection be disclosed. The environmentally superior alternative is the alternative that would be expected to create the least significant environmental effects. Identification of the environmentally superior alternative is an informational procedure and the alternative selected may not be the alternative that best meets the goals or needs of Cupertino.

As shown in Draft EIR Table 5-5, the impacts associated with each of the four land use scenarios analyzed in this EIR would essentially be the same. As previously stated, this is because the recommended mitigation measures would apply to all of the alternatives, and compliance with the General Plan policies designed to reduce environmental impacts would also apply to all future development in Cupertino. However, as shown in Draft EIR Table 5-5, for Land Use Alternative B air quality Impact AQ-1 (Conflict with or obstruct implementation of the applicable air quality plan) would be less than significant for Alternative B but would be significant and unavoidable for the other alternatives. That is because the mix of development in Alternative B would increase office square footage, but to all lesser extent than Alternative C, while at the same time increasing the residential allocation unlike Alternative A and the No Project Alternative.

While Alternative C represents the maximum extent of residential development anticipated by the Plan Bay Area for Cupertino by 2040, Alternative C's higher increase in office square footage (approximately 4,040,231 square feet compared to the lower office increase in Alternative B of approximately 2,540,231 square feet), together with the total increase in residential allocation, does not reflect a balanced jobs-housing ratio that results in lower per capita VMT when compared to Alternative B. Under Alternative C, land uses allocations in the General Plan would generate 897,419 VMT per day (10.47 miles per service population per day in 2013). Based on the future estimates of VMT per person for Cupertino for year 2040, 1,264,271 VMT per day (10.94 miles per service population per day in 2040) would be generated in Cupertino. Accordingly, the daily VMT in the Project Study Area under Alternative C would increase at a slightly greater rate (40.9 percent) between 2013 and 2040 than would the service population of the Project Study Area (34.8 percent). In comparison, under Alternative B, based on the future estimates of VMT per person for Cupertino for year 2040, 1,097,596 VMT per day (10.24 miles per service population per day in 2040)

would be generated in the City. Under Alternative B, daily VMT in the Project Study Area would increase at a slower rate (22.3 percent) between 2013 and 2040 than would the service population of the Project Study Area (25.0 percent). When the VMT increase is less than or equal to the projected population increase, this represents a balanced jobs-housing ratio.

In identifying an Environmental Superior Alternative, the analysis in the EIR is based on the principle that less development would mean reduced effects on the environment. Each incremental increase in development allocations among the alternatives represents increased population and activity which would result in increased noise, air quality, greenhouse gas, traffic, and utilities impacts. Although a number of these impacts would be significant and unavoidable under every alternative, the severity of the significant and unavoidable impacts would vary according to the development allocations within a given alternative. For example, while Land Use Alternative B would reduce Air Quality Impact AQ-1, as described above in Section VIII.E, the No Project Alternative would be the environmentally superior alternative because it would not allow for new development to occur beyond what is currently planned for in the 2000-2020 General Plan, which would result in the least amount of development in the City and thereby reduce the consumption of renewable resources (e.g., lumber and water) and nonrenewable resources (e.g., fossil fuels, natural gas, and gasoline). Less development would place fewer demands on public service providers (which could require new facilities), would require fewer road, sewer, water and energy infrastructure improvements, and would generate less waste, which would overall reduce impacts on the environment.

In accordance with State CEQA Guidelines Section 15126.6(e)(2), if the environmentally superior alternative is the No Project alternative, the EIR shall also identify an environmentally superior alternative from among the other alternatives. Accordingly, the environmentally superior alternative would be Land Use Alternative A, because less development would occur compared to Land Use Alternative B and Land Use Alternative C. Under Land Use Alternative A, the smallest amount of new office and commercial space and new hotel rooms would be permitted compared to the other alternatives, and no new residential units would be permitted beyond the allocations in the current General Plan.

For the foregoing reasons, Alternative A is considered the environmentally superior alternative.

IX. INCORPORATION BY REFERENCE

These findings incorporate the text of the Final EIR for the Project, the Mitigation Monitoring and Reporting Program, City staff reports relating to the Project and other documents relating to public hearings on the Project, by reference, in their entirety. Without limitation, this incorporation is intended to elaborate on the scope and nature of mitigation measures, project and cumulative impacts, the basis for determining the significance of

impacts, the comparison of the alternatives to the Project, the determination of the environmentally superior alternative, and the reasons for approving the Project.

X. RECORD OF PROCEEDINGS

Various documents and other materials related to the Project constitute the record of proceedings upon which the City bases its findings and decisions contained herein. Those documents and materials are located in the offices of the custodian for the documents and materials, which is the City of Cupertino Community Development Department, Cupertino City Hall, 10300 Torre Avenue, Cupertino, CA 95014-3202.

XI. NO RECIRCULATION REQUIRED

State CEQA Guidelines Section 15088.5 requires a lead agency to recirculate an EIR for further review and comment when "significant new information" is added to the EIR after public notice is given of the availability of the Draft EIR but before certification. No significant new information was added to the Draft EIR as a result of the public comment process. The Final EIR responds to comments, and clarifies, amplifies and makes insignificant modifications to the Draft EIR. The Final EIR does not identify any new significant effects on the environment or a substantial increase in the severity of an environmental impact.

The EIR analyzes full buildout of 2040 growth for Cupertino as projected in Plan Bay Area. The Approved Project consists of the same commercial and hotel development allocation that were analyzed in the EIR for Alternative C, and reduced office and residential development allocations from the amounts analyzed in the EIR for Alternative C.

The Priority Housing Element Sites in the Approved Project are 7 of the 19 sites analyzed in the EIR. While the prioritization of the sites has been changed in the Approved Project and some of the residential development is reassigned among the sites, the maximum heights and densities for all of the Housing Element sites are within the heights and densities for those sites that were analyzed in the EIR. Accordingly, all aspects of the maximum development that could be built under the Approved Project were analyzed in the EIR.

For the foregoing reasons, recirculation of the Final EIR is not required.

XII. STATEMENT OF OVERRIDING CONSIDERATIONS

As set forth above, the City has found that the Approved Project will result in project and cumulative significant adverse environmental impacts related to air quality, noise, and traffic and transportation that cannot be avoided following adoption, incorporation into the project, and implementation of mitigation measures described in the EIR. In addition, there are no feasible project alternatives that would mitigate or avoid all of the Approved Project's significant environmental impacts. Section 15093(b) of the State CEQA Guidelines

provides that when the decision of the public agency results in the occurrence of significant impacts that are not avoided or substantially lessened, the agency must state in writing the reasons to support its actions. See also Public Resources Code Section 21081(b). Having balanced the economic, legal, social, technological or other benefits of the Project, including region-wide or statewide environmental benefits, against its significant and unavoidable environmental impacts, the City finds that the Approved Project benefits outweigh its unavoidable adverse environmental effects, and that the adverse environmental effects are therefore acceptable.

The following statement identifies the reasons why, in the City's judgment, specific benefits of the Approved Project outweigh the significant and unavoidable effects. The substantial evidence supporting the benefits of the Approved Project can be found in the preceding sections of these Findings, in the Project itself, and in the record of proceedings as defined in Section X, above. The City further finds that each of the project benefits discussed below is a separate and independent basis for these findings. The reasons set forth below are based on the Final EIR and other information in the administrative record.

1) The Project provides for economic growth by creating the opportunity to revitalize the Vallco Shopping District site with new housing and employment-related land uses. This will attract new businesses and allow existing businesses to stay and grow within the City, improve sales tax and property tax revenue to help the City maintain a healthy fiscal balance to provide its residents with high quality services, and provide needed housing for the City's employees.

2) The Project concentrates growth at locations with existing uses and, as a result, potential future development under the Project would consist largely of either redevelopment of existing building, selective demolition of existing structures and replacement with new construction, or new infill development adjacent to existing uses, all of which would serve to lessen environmental impacts.

3) The Project policies concentrating growth along transportation corridors and in employment centers contributes to community goals of protecting the City's neighborhoods and connectivity.

4) The Project includes policies that encourage conservation of water and energy resources in conformance with the City's sustainability goals.

5) The Project is in conformance with the principles of planning sustainable communities by meeting both the present and future housing needs of the City, and fulfills the City Council's charge to prepare a Housing Element.

6) The Project meets the City's Regional Housing Needs Allocation (RHNA) of 1,064 units, and provides a moderate surplus above the City's housing need of 1,002 units,

or approximately 1,400 units, to ensure that the City can provide its fair share of the region's housing over the next 8 years.

7) The Project provides an opportunity to revitalize the Vallco Shopping District site and transform it into a locally and regionally significant retail, employment, residential, and entertainment destination, which would become the "downtown" of Cupertino.

XIII. SUMMARY

1. Based on the foregoing Findings and the information contained in the record, the City has made one or more of the following Findings with respect to each of the significant environmental effects of the Project:
   a. Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant environmental effects identified in the Final EIR.
   b. Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other public agency.
   c. Specific economic, legal, social, technological, or other considerations, make infeasible the mitigation measures or alternatives identified in the Final EIR that would otherwise avoid or substantially lessen the identified significant environmental effects of the Project.
2. Based on the foregoing Findings and the information contained in the record, the City determines that:
   a. All significant effects on the environment due to the approval of the Project have been eliminated or substantially lessened where feasible.
   b. Any remaining significant effects on the environment found to be unavoidable are acceptable due to the factors described in the Statement of Overriding Considerations, above.

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Mitigation Monitoring and Reporting Program

This Mitigation Monitoring and Reporting Program (MMRP) has been prepared for the General Plan Amendment, Housing Element Update and Associated Rezoning Project. The purpose of the MMRP is to ensure the implementation of mitigation measures identified as part of the environmental review for the proposed Project. The MMRP includes the following information:

- The full text of the mitigation measures;
- The party responsible for implementing the mitigation measures;
- The timing for implementation of the mitigation measure;
- The agency responsible for monitoring the implementation; and
- The monitoring action and frequency.

The City of Cupertino must adopt this MMRP, or an equally effective program, if it approves the proposed Project with the mitigation measures that were adopted or made conditions of project approval.

MITIGATION MONITORING AND REPORTING PROGRAM

TABLE 1 MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
AIR QUALITY					
AQ-2a: As part of the City's development approval process, the City shall require applicants for future development projects to comply with the current Bay Area Air Quality Management District's basic control measures for reducing construction emissions of PM_{10}.	City of Cupertino	Prior to Construction During Construction	City of Cupertino Department of Public Works	Plan Review and Approval	During scheduled construction site inspections.
AQ-2b: As part of the City's development approval process the City shall require applicants for future development projects that could generate emissions in excess of the Bay Area Air Quality Management District's (BAAQMDs) current significance thresholds during construction, as determined by project-level environmental review, when applicable, to implement the current BAAQMD construction mitigation measures (e.g. Table 8-3 of the BAAQMD CEQA Guidelines) or any construction mitigation measures subsequently adopted by the BAAQMD.	City of Cupertino	Prior to Construction	City of Cupertino Department of Public Works	Plan Review and Approval	During scheduled construction site inspections.
AQ-4a: Applicants for future non-residential land uses within the city that: 1) have the potential to generate 100 or more diesel truck trips per day or have 40 or more trucks with operating diesel-powered Transport Refrigeration Units (TRUs), and 2) are within 1,000 feet of a sensitive land use (e.g. residential, schools, hospitals, nursing homes), as measured from the property line of the proposed Project to the property line of the nearest sensitive use, shall submit a health risk assessment (HRA) to the City of Cupertino prior to future discretionary Project approval. The HRA shall be prepared in accordance with policies and procedures of the State Office of Environmental Health Hazard Assessment and the Bay Area Air Quality Management District. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E-06), $PM_{2.5}$ concentrations exceed 0.3 $\mu g/m^3$, or the appropriate noncancer hazard index exceeds 1.0, the	City of Cupertino	Prior to future project approval	City of Cupertino Department of Public Works	HRA Review and Approval	Once

TABLE 1 MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
applicant will be required to identify and demonstrate that Best Available Control Technologies for Toxics (T-BACTs) are capable of reducing potential cancer and noncancer risks to an acceptable level, including appropriate enforcement mechanisms. T-BACTs may include but are not limited to: ▪ Restricting idling on-site. ▪ Electrifying warehousing docks. ▪ Requiring use of newer equipment and/or vehicles. ▪ Restricting offsite truck travel through the creation of truck routes. ▪ T-BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the proposed Project.					
AQ-4b: Applicants for residential and other sensitive land use projects (e.g. hospitals, nursing homes, day care centers) in Cupertino within 1,000 feet of a major sources of TACs (e.g. warehouses, industrial areas, freeways, and roadways with traffic volumes over 10,000 vehicle per day), as measured from the property line of the project to the property line of the source/edge of the nearest travel lane, shall submit a health risk assessment (HRA) to the City of Cupertino prior to future discretionary Project approval. The HRA shall be prepared in accordance with policies and procedures of the State Office of Environmental Health Hazard Assessment (OEHHA) and the Bay Area Air Quality Management District. The latest OEHHA guidelines shall be used for the analysis, including age sensitivity factors, breathing rates, and body weights appropriate for children age 0 to 16 years. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E-06), $PM_{2.5}$ concentrations exceed 0.3 $\mu g/m^3$, or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that	City of Cupertino	Prior to future project approval	City of Cupertino Department of Public Works	HRA review and approval	Once

MITIGATION MONITORING AND REPORTING PROGRAM

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Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e. below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms. Measures to reduce risk may include but are not limited to: ▪ Air intakes located away from high volume roadways and/or truck loading zones. ▪ Heating, ventilation, and air conditioning systems of the buildings provided with appropriately sized Maximum Efficiency Rating Value (MERV) filters. Mitigation measures identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the proposed Project. The air intake design and MERV filter requirements shall be noted and/or reflected on all building plans submitted to the City and shall be verified by the City's Planning Division.					
BIOLOGICAL RESOURCES					
BIO-1: Nests of raptors and other birds shall be protected when in active use, as required by the federal Migratory Bird Treaty Act and the California Department of Fish and Game Code. If construction activities and any required tree removal occur during the breeding season (February 1 and August 31), a qualified biologist shall be required to conduct surveys prior to tree removal or construction activities. Preconstruction surveys are not required for tree removal or construction activities outside the nesting period. If construction would occur during the nesting season (February 1 to August 31), preconstruction surveys shall be conducted no more than 14 days prior to the start of tree removal or construction. Preconstruction surveys shall be repeated at 14-day intervals until construction has been initiated in the area after which	City of Cupertino	Prior to Construction	California Department of Fish and Wildlife	Preconstruction Survey	Once

TABLE 1 MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
surveys can be stopped. Locations of active nests containing viable eggs or young birds shall be documented and protective measures implemented under the direction of the qualified biologist until the nests no longer contain eggs or young birds. Protective measures shall include establishment of clearly delineated exclusion zones (i.e. demarcated by identifiable fencing, such as orange construction fencing or equivalent) around each nest location as determined by a qualified biologist, taking into account the species of birds nesting, their tolerance for disturbance and proximity to existing development. In general, exclusion zones shall be a minimum of 300 feet for raptors and 75 feet for passerines and other birds. The active nest within an exclusion zone shall be monitored on a weekly basis throughout the nesting season to identify signs of disturbance and confirm nesting status. The radius of an exclusion zone may be increased by the qualified biologist if project activities are determined to be adversely affecting the nesting birds. Exclusion zones may be reduced by the qualified biologist only in consultation with California Department of Fish and Wildlife. The protection measures shall remain in effect until the young have left the nest and are foraging independently or the nest is no longer active.					
HAZARDS AND HAZARDOUS MATERIALS					
HAZ-4a: Construction at the sites with known contamination shall be conducted under a project-specific Environmental Site Management Plan (ESMP) that is prepared in consultation with the Regional Water Quality Control Board (RWQCB) or the Department of Toxic Substances Control (DTSC), as appropriate. The purpose of the ESMP is to protect construction workers, the general public, the environment, and future site occupants from subsurface hazardous materials previously identified at the site and to address the	City of Cupertino	Prior to Construction	City of Cupertino Department of Public Works	Environmental Site Management Plan	Once

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TABLE 1 MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
possibility of encountering unknown contamination or hazards in the subsurface. The ESMP shall summarize soil and groundwater analytical data collected on the project site during past investigations; identify management options for excavated soil and groundwater, if contaminated media are encountered during deep excavations; and identify monitoring, irrigation, or other wells requiring proper abandonment in compliance with local, State, and federal laws, policies, and regulations. The ESMP shall include measures for identifying, testing, and managing soil and groundwater suspected of or known to contain hazardous materials. The ESMP shall: 1) provide procedures for evaluating, handling, storing, testing, and disposing of soil and groundwater during project excavation and dewatering activities, respectively; 2) describe required worker health and safety provisions for all workers potentially exposed to hazardous materials in accordance with State and federal worker safety regulations; and 3) designate personnel responsible for implementation of the ESMP.					
HAZ-4b: For those sites with potential residual contamination in soil, gas, or groundwater that are planned for redevelopment with an overlying occupied building, a vapor intrusion assessment shall be performed by a licensed environmental professional. If the results of the vapor intrusion assessment indicate the potential for significant vapor intrusion into an occupied building, project design shall include vapor controls or source removal, as appropriate, in accordance with regulatory agency requirements. Soil vapor mitigations or controls could include vapor barriers, passive venting, and/or active venting. The vapor intrusion assessment and associated vapor controls or source removal can be incorporated into the ESMP (Mitigation Measure HAZ-4a).	City of Cupertino	Prior to redevelopment	City of Cupertino Department of Public Works	Vapor Intrusion Assessment	

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Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
TRANSPORTATION AND TRAFFIC					
TRAF-1: The City of Cupertino shall commit to preparing and implementing a Transportation Mitigation Fee Program to guarantee funding for roadway and infrastructure improvements that are necessary to mitigate impacts from future projects based on the then current City standards. As part of the preparation of the Transportation Mitigation Fee Program, the City shall also commit to preparing a "nexus" study that will serve as the basis for requiring development impact fees under AB 1600 legislation, as codified by California Code Government Section 66000 et seq., to support implementation of the proposed Project. The established procedures under AB 1600 require that a "reasonable relationship" or nexus exist between the transportation improvements and facilities required to mitigate the transportation impacts of new development pursuant to the proposed Project. The following examples of transportation improvements and facilities would reduce impacts to acceptable level of service standards and these, among other improvements, including multimodal improvements that reduce automobile trips and relieve congestion, could be included in the development impact fees nexus study: ▪ SR 85 Northbound Ramps and Stevens Creek Boulevard (#2): An exclusive left-turn lane for the northbound leg of the intersection (freeway off-ramp) at the intersection of SR 85 and Stevens Creek Boulevard would result in one left-turn lane, one all-movement lane, and one right turn lane. The additional lane could be added within the existing Caltrans right-of-way. ▪ Stelling Road and Stevens Creek Boulevard (#3): The addition of a second exclusive left-turn lane for the eastbound leg of the intersection from Stevens Creek Boulevard to northbound Stelling Road, which could be	City of Cupertino	Upon adoption of proposed Project	City of Cupertino Department of Public Works	Transportation Mitigation Fee Program	Once

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Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
accomplished by reworking the median. Right turns would share the bike lane. ▪ Sunnyvale-Saratoga Road/De Anza Boulevard and Homestead Road (#5): Widen De Anza Boulevard to four lanes in each direction or the installation of triple left-turn lanes. ▪ De Anza Boulevard and I-280 Northbound Ramp (#6): Restriping of De Anza Boulevard in the southbound direction to provide room for right turn vehicles to be separated from through traffic may be required. The bike lane would be maintained, and right turns would occur from the bike lane. The right turns would continue to be controlled by the signal and would need to yield to pedestrians. ▪ De Anza Boulevard and Stevens Creek Boulevard (#8): Restripe westbound Stevens Creek Boulevard to provide room for right turn vehicles to be separated from through vehicles may be required. The right turn vehicles will share the bike lane and will still be controlled by the traffic signal. Paint a bike box at the front of the lane to provide bikes a place to wait at red lights. The pedestrian crossings will not be affected may enhance the bicycling experience. ▪ De Anza Boulevard and McClellan Road/Pacifica Drive (#9): Realign the intersection that is currently offset resulting in inefficient signal timing such that the McClellan Road and Pacifica Drive legs are across from each other may be required. In addition, double left turn lanes may be required to be added to De Anza Boulevard with sections of double lanes on McClellan Road and Pacifica Drive to receive the double left turn lanes. These improvements will require the acquisition of right-of-way and demolition of existing commercial buildings. However, some existing right-of-way could be abandoned, which would reduce					

TABLE 1 MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
the net right-of-way take. ▪ **Wolfe Road and Homestead Road (#16):** The addition of a third southbound through lane to the southbound approach of the intersection of Wolfe Road and Homestead Road may be required, as well as the addition of a southbound exclusive right-turn lane. Three southbound receiving lanes on the south side of the intersection currently exist. An additional westbound through lane for a total of three through-movement lanes, an additional receiving lane on Homestead westbound to receive the additional through lane, as well as the addition of a westbound exclusive right-turn lane may be required. This will require widening Homestead Road. An additional eastbound through lane for a total of three through-movement lanes, an additional receiving lane on Homestead eastbound to receive the additional through lane, as well as the addition of an eastbound exclusive left-turn lane for a total of two left-turn lanes may be required. These improvements will require the acquisition of right-of-way and demolition of parking areas. ▪ **Wolfe Road and I-280 Northbound Ramp (#18):** The Apple Campus 2 project will be adding a third northbound lane starting at the northbound on ramp. This third lane will need to be extended farther south to effectively serve the additional northbound traffic due to the General Plan development. This could require widening the Wolfe Road overcrossing. Right-of-way acquisition may be required. In accordance with Caltrans procedures, a Project Study Report (PSR) will need to be prepared. The PSR will look at all interchange improvement options, which may include widening the overcrossing and may include redesign of the interchange to go from a partial cloverleaf design to a diamond design. This could help					

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Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
with heavy volumes in the right lane, which contributes to the level-of-service deficiency. ▪ **Wolfe Road and I-280 Southbound Ramp (#19):** An additional through lane for a total of three through-movement lanes for the northbound leg of the intersection at the Wolfe Road and I-280 Southbound Ramp may be required. This additional northbound through lane would require widening to the freeway overcrossing. In addition to widening the overcrossing, the City may wish to pursue a redesign of the interchange to go from a partial cloverleaf design to a diamond design. This could help with the problem of heavy volume in the right lane, which contributes to the level of service deficiency. ▪ **Wolfe Road/Miller Avenue and Stevens Creek Boulevard (#21):** The restriping of the westbound leg of the intersection to provide room so that right turn vehicles can be separated from through vehicles may be required. Right turn vehicles would share the bike lane. Right turn vehicles would still be controlled by the signal, and pedestrian crossings would not be affected. Paint a bike box at the front of the lane to provide bikes a place to wait at red lights may enhance the bicycling experience. ▪ **North Tantau Avenue/Quail Avenue and Homestead Road (#24):** Restriping of the southbound leg of the intersection (Quail Avenue) to provide a separate left turn lane may be required. This will require the removal of on-street parking near the intersection. The level-of-service calculations show that with implementation of these improvements, the intersection would operate at an acceptable LOS D. ▪ **Tantau Avenue and Stevens Creek Boulevard (#27):** The addition of a separate left-turn lane to northbound Tantau Avenue may be required. Right-of-way acquisition and demolition of existing commercial buildings would be					

TABLE 1 MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
required. ▫ **Stevens Creek Boulevard and Agilent Technologies Driveway (#30):** The restriping of the westbound leg of the intersection to provide room so that right turn vehicles can be separated from through vehicles may be required. Right turn vehicles would share the bike lane. Right turn vehicles would still be controlled by the signal, and pedestrian crossings would not be affected. Paint a bike box at the front of the lane to provide bikes a place to wait at red lights may enhance the bicycling experience. ▫ **Lawrence Expressway Southbound Ramp and Stevens Creek Boulevard (CMP, County)(#31):** The addition of a second right-turn lane for the southbound leg of the intersection at the Lawrence Expressway Southbound Ramp and Stevens Creek Boulevard may be required. Both lanes would need to be controlled by the signal, and disallow right turns on red. Right-of-way acquisition may be required. ▫ **Lawrence Expressway Northbound Ramp and Stevens Creek Boulevard (CMP, County) (#32):** Redesign of the northbound leg of the intersection at the Lawrence Expressway Northbound Ramp and Stevens Creek Boulevard to provide one through-movement lane, and one exclusive right-turn lane may be required. Right-of-way acquisition would be required. The fees shall be assessed when there is new construction, an increase in square footage in an existing building, or the conversion of existing square footage to a more intensive use. The fees collected shall be applied toward circulation improvements and right-of-way acquisition. The fees shall be calculated by multiplying the proposed square footage, dwelling unit, or hotel room by the appropriate rate.					

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Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
Transportation mitigation fees shall be included with any other applicable fees payable at the time the building permit is issued. The City shall use the transportation mitigation fees to fund construction (or to recoup fees advanced to fund construction) of the transportation improvements identified above, among other things that at the time of potential future development may be warranted to mitigate transportation impacts.					
UTILITIES AND SERVICE SYSTEMS					
UTIL-6a: The City shall work with the Cupertino Sanitary District to increase the available citywide treatment and transmission capacity to 8.65 million gallons per day, or to a lesser threshold if studies justifying reduced wastewater generation rates are approved by CSD as described in Mitigation Measure UTIL-6c.	City of Cupertino	Upon Adoption of proposed Project	City of Cupertino Department of Public Works	Increase treatment and transmission capacity	Once
UTIL-6b: The City shall work to establish a system in which a development monitoring and tracking system to tabulate cumulative increases in projected wastewater generation from approved projects for comparison to the Cupertino Sanitary District's treatment capacity threshold with San Jose/Santa Clara Water Pollution Control Plant is prepared and implemented. If it is anticipated that with approval of a development project the actual system discharge would exceed the contractual treatment threshold, no building permits for such project shall be issued prior to increasing the available citywide contractual treatment and transmission capacity as described in Mitigation Measure UTIL-6a.	City of Cupertino	Upon Adoption of proposed Project	City of Cupertino Department of Public Works	No building permits issued for projects anticipated to exceed CSD treatment capacity	Once per approved project

MITIGATION MONITORING AND REPORTING PROGRAM

TABLE 1 MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
UTIL-6c: The City shall work with the Cupertino Sanitary District to prepare a study to determine a more current estimate of the wastewater generation rates that reflect the actual development to be constructed as part of Project implementation. The study could include determining how the green/LEED certified buildings in the City reduce wastewater demands.	City of Cupertino	Upon Adoption of the proposed Project	City of Cupertino Department of Public Works	Study of Wastewater Generation Rates	Once
UTIL-8: The City shall continue its current recycling ordinances and zero-waste policies in an effort to further increase its diversion rate and lower its per capita disposal rate. In addition, the City shall monitor solid waste generation volumes in relation to capacities at receiving landfill sites to ensure that sufficient capacity exists to accommodate future growth. The City shall seek new landfill sites to replace the Altamont and Newby Island landfills, at such time that these landfills are closed.	City of Cupertino	Ongoing	City of Cupertino Department of Public Works	Secure new landfill options prior to close of Altamont and Newby Island landfills	Ongoing

County of Santa Clara

Parks and Recreation Department

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March 12, 2018

Piu Ghosh
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City of Cupertino, Community Development Department
10300 Torre Avenue
Cupertino, CA 95014

SUBJECT: City of Cupertino Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) of the Vallco Special Area Specific Plan (EA-2017-05)

The County of Santa Clara Parks and Recreation Department (County Parks Department) submits the following comments in response to the NOP of a DEIR for the Vallco Special Area Specific Plan to redevelop 58 acres out of the 70 total acres into approximately 1.2 million square feet of commercial uses, 2.0 million square feet of office uses, 339 hotel rooms, and 389 residential dwelling units as designated in the City of Cupertino General Plan 2040. The Vallco Special Area is zoned commercial, office, and residential and spans multiple Assessor Parcel Numbers (APNs) 316-20-080, -081, -082, -088, -092, -094, -095, -099, -100, -101, and 103-107.

The County Parks Department is charged with providing, protecting, and preserving regional parklands for the enjoyment, education and inspiration of this and future generations. Our vision is to provide a sustainable system of diverse regional parks, trails, and natural areas. The Department is also charged with the planning and implementation of *The Santa Clara County Countywide Trails Master Plan Update (Countywide Trails Plan/CWTMP),* an element of the Parks and Recreation Section of the County General Plan adopted by the County of Santa Clara Board of Supervisors on November 14, 1995.

While no *CWTMP* Trails are located within the Vallco Special Area, City planned Interstate (I) 280 Canal Trail (Junipero Serra Trail) runs through the project site, connecting to Calabazas Creek Trail in Cupertino and ultimately connecting to the San Tomas Aquino/ Saratoga Creek Trail, a *CWTMP* trail. The San Tomas Aquino/ Saratoga Creek Trail encompasses off-street trails that provide a combination of hiking, equestrian, or bicycle use depending on the segment. The trail traverses North from its connection in Cupertino through the Cities of Santa Clara and San Jose, connecting to the San Francisco Bay Trail.

I-280 Canal Trail (Junipero Serra Trail)

As a planned Class I trail, the construction and opening of the Junipero Serra Trail provides more than just a "loop" connection for the City of Cupertino. Once complete along with planned segments of the Calabazas Creek Trail in Cupertino and the San Tomas Aquino/ Saratoga Creek Trail, this trail will

Board of Supervisors: Mike Wasserman, Cindy Chavez, Dave Cortese, Ken Yeager, S. Joseph Simitian

County Executive: Jeffrey V. Smith

SANTA CLARA COUNTY PARKS

enable local residents to use non-motorized transportation to go to San Francisco for the weekend or to reach Apple and other tech companies for work. With the completion of the trail, the newly constructed Vallco Special Area would provide an employment, entertainment, retail, and commercial hub for recreational trail users and commuters, not only vehicle or public transportation users.

Class III Bikeway: Portal Bike Boulevard

Proposed in the *Bicycle Transportation Plan* (2016) is the Portal Bike Boulevard which borders the western boundary of the Vallco Special Area. The shared roadway commences at Stevens Creek Boulevard and continues north, passing the City's Portal Park, Collins Elementary School, and single-family residences until it makes a sharp westward turn onto Merritt Drive terminating at Sam H. Lawson Middle School. The Portal Bike Boulevard is one of five segments and part of the above-described "loop."

The County Parks Department recommends the Draft EIR provide a complete analysis of recreational and traffic impacts and include:

- A traffic study should be prepared to analyze the potential impacts on the planned City of Cupertino trails, bike paths, existing residents within the project site, as well as Collins Elementary School and Portal Park that are immediately west of the project site.

- All DEIR maps (circulation, aerial, recreation, etc.) should depict the planned trail alignments: Junipero Serra Trail, Portal Bike Boulevard, Calabazas Creek Trail in Cupertino, and the San Tomas Aquino/ Saratoga Creek Trail.

The County Parks Department also recommends the following potential area guidelines/elements to provide natural areas for Vallco Special Area users, including but not limited to:

- Open space design strategies that promote passive recreation, provide common open spaces, and provide informal opportunities to interactions of users.

- The Plan to the extent feasible also include pedestrian- and bicycle-oriented amenities and facilities to include, but not limited to: street trees and landscaping, benches, low-level lighting, signage, textured crosswalks, and bike lanes.

The County Parks Department appreciates the opportunity to comment on the NOP for the DEIR of the Vallco Special Area Specific Plan. Please provide notice to the County Parks Department of any future information regarding this project. If you have any questions related to these comments, please call me at (408) 355-2228 or e-mail me at Cherise.Orange@prk.sccgov.org.

Sincerely,

Cherise Orange
Associate Planner

SANTA CLARA COUNTY PARKS

Board of Supervisors: Mike Wasserman, Cindy Chavez, Dave Cortese, Ken Yeager, S. Joseph Simitian

County Executive: Jeffrey V. Smith

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Cupertino, CA 95014

SUBJECT: City of Cupertino Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) of the Vallco Special Area Specific Plan (EA-2017-05)

The County of Santa Clara Parks and Recreation Department (County Parks Department) submits the following comments in response to the NOP of a DEIR for the Vallco Special Area Specific Plan to redevelop 58 acres out of the 70 total acres into approximately 1.2 million square feet of commercial uses, 2.0 million square feet of office uses, 339 hotel rooms, and 389 residential dwelling units as designated in the City of Cupertino General Plan 2040. The Vallco Special Area is zoned commercial, office, and residential and spans multiple Assessor Parcel Numbers (APNs) 316-20-080, -081, -082, -088, -092, -094, -095, -099, -100, -101, and 103-107.

The County Parks Department is charged with providing, protecting, and preserving regional parklands for the enjoyment, education and inspiration of this and future generations. Our vision is to provide a sustainable system of diverse regional parks, trails, and natural areas. The Department is also charged with the planning and implementation of *The Santa Clara County Countywide Trails Master Plan Update (Countywide Trails Plan/CWTMP),* an element of the Parks and Recreation Section of the County General Plan adopted by the County of Santa Clara Board of Supervisors on November 14, 1995.

While no *CWTMP* Trails are located within the Vallco Special Area, City planned Interstate (I) 280 Canal Trail (Junipero Serra Trail) runs through the project site, connecting to Calabazas Creek Trail in Cupertino and ultimately connecting to the San Tomas Aquino/ Saratoga Creek Trail, a *CWTMP* trail. The San Tomas Aquino/ Saratoga Creek Trail encompasses off-street trails that provide a combination of hiking, equestrian, or bicycle use depending on the segment. The trail traverses North from its connection in Cupertino through the Cities of Santa Clara and San Jose, connecting to the San Francisco Bay Trail.

I-280 Canal Trail (Junipero Serra Trail)

As a planned Class I trail, the construction and opening of the Junipero Serra Trail provides more than just a "loop" connection for the City of Cupertino. Once complete along with planned segments of the Calabazas Creek Trail in Cupertino and the San Tomas Aquino/ Saratoga Creek Trail, this trail will

Board of Supervisors: Mike Wasserman, Cindy Chavez, Dave Cortese, Ken Yeager, S. Joseph Simitian

County Executive: Jeffrey V. Smith

SANTA CLARA COUNTY PARKS

enable local residents to use non-motorized transportation to connect to San Francisco or to reach Apple and other tech companies for work. With the completion of the trail, the newly constructed Vallco Special Area would provide an employment, entertainment, retail, and commercial hub for recreational trail users and commuters, not only vehicle or public transportation users.

Class III Bikeway: Portal Bike Boulevard

Proposed in Cupertino's *Bicycle Transportation Plan* (2016), the Portal Bike Boulevard borders the western boundary of the Vallco Special Area. This shared roadway commences at Stevens Creek Boulevard and continues north, passing the City's Portal Park, Collins Elementary School, and single-family residences until it makes a sharp westward turn onto Merritt Drive terminating at Sam H. Lawson Middle School. The Portal Bike Boulevard is one of five segments and part of the above-described "loop."

The County Parks Department recommends the Draft EIR provide a complete analysis of recreational and traffic impacts and include:

- A traffic study to analyze the potential impacts on planned City of Cupertino trails, bike paths, and schools, parks and residents within the vicinity of the project site.

- All DEIR maps (circulation, aerial, recreation, etc.) should depict the planned trail alignments: Junipero Serra Trail, Portal Bike Boulevard, Calabazas Creek Trail in Cupertino, and the San Tomas Aquino/ Saratoga Creek Trail.

The County Parks Department also respectfully suggests the following potential area guidelines/elements to provide natural areas for Vallco Special Area users, including but not limited to:

- Open space design strategies that promote passive recreation and provide common open spaces.

- A variety of pedestrian- and bicycle-oriented amenities and facilities to include, but not limited to: street trees and landscaping, benches, low-level lighting, signage, textured crosswalks, and bike lanes.

The County Parks Department appreciates the opportunity to comment on the NOP for the DEIR of the Vallco Special Area Specific Plan. Please provide notice to the County Parks Department of any future information regarding this project. If you have any questions related to these comments, please call me at (408) 355-2228 or e-mail me at Cherise.Orange@prk.sccgov.org.

Sincerely,

Cherise Orange
Associate Planner

SANTA CLARA COUNTY PARKS

Board of Supervisors: Mike Wasserman, Cindy Chavez, Dave Cortese, Ken Yeager, S. Joseph Simitian

County Executive: Jeffrey V. Smith

County of Santa Clara

Roads and Airports Department

101 Skyport Drive
San Jose, California 95110-1302
1-408-573-2400

March 7, 2018

Office of Community Development
City of Cupertino
10300 Torre Avenue
Cupertino, California 95014

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report
Vallco Special Area Specific Plan – File No. EA-2017-05

To Whom It May Concern:

The County of Santa Clara Roads and Airports Department appreciates the opportunity to comment on the scope of the DEIR for the Vallco Special Area Specific Plan and is submitting the following comments.

- The County understands that the Proposed Area Plan is part of the City's ongoing efforts to implement the City's General Plan and Housing Element. In August 2014, the County provided comments specific to the traffic analysis associated with the 2014 DEIR General Plan Amendment, Housing Element Update, and associated Rezoning Project. A copy of that letter is attached. Under the General Plan DEIR, the County expressed concerns about traffic impacts at the Lawrence/Stevens Creek intersection and at Lawrence/I-280.

  We presume that traffic impacts identified in the proposed Area Plan DEIR will be similar in nature to what was identified under the 2014 General Plan Amendment DEIR. Added to that, technical guidance for implementing Senate Bill 743was issued by the Governor's Office of Planning and Research in November 2017. To that end, with regards to the transportation analysis, we request that the scope of the DEIR specifically disclose or discuss:

  - The City's intention for designating Infill Opportunity Zones as part of implementing SB 743 (relating to Vehicle Miles Traveled)
  - Whether or not the City considers the proposed Area Plan an Infill Opportunity Zone as part of implementing SB 743 (relating to Vehicle Miles Traveled)
  - Whether or not the City will utilize and report performance metrics, and what metrics if any, to measure the progress of any transportation demand management programs as they relate to any CEQA mitigation
  - Whether or not the City will require private developers to utilize/report performance metrics, and what metrics if any, to measure the progress of any transportation demand management programs as they

Board of Supervisors: Mike Wasserman, Cindy Chavez, Dave Cortese, Ken Yeager, S. Joseph Simitian
County Executive: Jeffrey V. Smith

relate to any CEQA mitigation.

- The County appreciates the continual cooperation of the City in identifying improvements that would reduce or minimize impacts to the intersections and roadways as a result of implementation of future development projects in Cupertino (4.13-56). Any future LOS analysis for specific development projects should be conducted using County signal timing for County study intersections and the most recent CMP count and LOS data for CMP intersections. Please contact Ananth Prasad at (408) 494-1342 or *Ananth.Prasad@rda.sccgov.org* for the correct signal timing settings, and current AM and PM peak counts.

Thank for the opportunity to comment. If you have any questions or concerns about these comments or would like to discuss, please contact me at (408) 573-2482 or ellen.talbo@rda.sccgov.org.

Sincerely,

Ellen Talbo, AICP
County Transportation Planner

cc: Barry Ng, *Deputy Director of Infrastructure Development*
Ananth Prasad, *County Traffic Engineer*

County of Santa Clara
Roads and Airports Department

101 Skyport Drive
San Jose, California 95110-1302
1-408-573-2400

March 7, 2018

Office of Community Development
City of Cupertino
10300 Torre Avenue
Cupertino, California 95014

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report
Vallco Special Area Specific Plan – File No. EA-2017-05

To Whom It May Concern:

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  - Whether or not the City will require private developers to utilize/report performance metrics, and what metrics if any, to measure the progress of any transportation demand management programs as they relate to any CEQA mitigation.

Board of Supervisors: Mike Wasserman, Cindy Chavez, Dave Cortese, Ken Yeager, S. Joseph Simitian
County Executive: Jeffrey V. Smith

- As part of the Transportation Analysis, we'd like the DEIR to include the following:

  - All CMP and non-CMP intersections along Lawrence Expressway from Homestead Road to Saratoga Avenue, including Lawrence/Stevens CreekI-280 signalized ramps.
  - All CMP and non-CMP intersections along San Tomas Expressway from Homestead Road to Moorpark Avenue.
  - Queuing Analysis at impacted intersections (at intersections described in 1 and 2 above) where added project trips results in queues beyond existing storage capacity.

- The County appreciates the continual cooperation of the City in identifying improvements that would reduce or minimize impacts to the intersections and roadways as a result of implementation of future development projects in Cupertino (4.13-56). Any future LOS analysis for specific development projects should be conducted using County signal timing for County study intersections and the most recent CMP count and LOS data for CMP intersections. Please contact Ananth Prasad at (408) 494-1342 or *Ananth.Prasad@rda.sccgov.org* for the correct signal timing settings, and current AM and PM peak counts.

Thank for the opportunity to comment. If you have any questions or concerns about these comments or would like to discuss, please contact me at (408) 573-2482 or ellen.talbo@rda.sccgov.org.

Sincerely,

Ellen Talbo, AICP
County Transportation Planner

cc: Barry Ng, *Deputy Director of Infrastructure Development*
Ananth Prasad, *County Traffic Engineer*

Sunnyvale

456 West Olive Avenue
Sunnyvale, CA 94088-3707
TDD/TYY 408-730-7501
sunnyvale.ca.gov

March 12, 2018

Piu Ghosh, Principal Planner
City of Cupertino
10300 Torre Avenue
Cupertino, CA 95014
piug@cupertino.org

Re: Comments on the Notice of Preparation for the Vallco Area Specific Plan

Dear Ms. Ghosh,

Thank you for the opportunity to comment on the Notice of Preparation (NOP) for the proposed Vallco Area Specific Plan (Plan) in Cupertino. This letter includes all City of Sunnyvale comments.

General Comments

1. The Plan proposes a development capacity of 600,000 square feet of commercial uses, 2.0 million square feet of office uses, 339 hotel rooms, and 800 residential dwelling units for the Vallco Special Area.

   The City of Sunnyvale is concerned with the Plan's imbalance in non-residential uses (commercial, office, and hotel) vs. proposed residential units, especially in regards to recent substantial office development in the immediate area. Although density may be regulated by the existing General Plan, the housing demand with the proposed non-residential development and recent office development is significant in size and may warrant additional housing units to be considered on the site. Please consider an alternative in the Plan's Environmental Impact Report (EIR) that includes additional residential units in an attempt to mitigate burden on the housing market, and other environmental impacts, such as traffic and transportation and greenhouse gas emissions.

Traffic and Transportation Comments

If you have questions on the following traffic related items, please contact Lillian Tsang, Principal Transportation Engineer, Department of Public Works at ltsang@sunnyvale.ca.gov or (408) 730-7556.

1. The City of Sunnyvale uses criteria of the Valley Transportation Authority (VTA) Transportation Impact Analysis (TIA) Guidelines as a basis for determining study

intersections. Accordingly, municipal and Congestion Management Program (CMP) intersections with ten or more project trips per approach lane should be analyzed. Due to the project size and location, it is expected that project trips would travel to the north through Sunnyvale, which is likely to trigger the need for intersection analysis along Wolfe Road, Sunnyvale-Saratoga Road, Hollenbeck Avenue, and Mary Avenue. The following intersections shall be included in the analysis:

- Wolfe Road & Homestead Road
- Wolfe Road & Inverness Way
- Wolfe Road & Marion Way
- Wolfe Road & Fremont Avenue
- Wolfe Road & El Camino Real
- Quail Avenue/Tantau Avenue & Homestead Road
- Heron Avenue & Homestead Road
- Blaney Avenue & Homestead Road
- Blue Jay Drive & Homestead Road
- Sunnyvale-Saratoga Road & Homestead Road
- Sunnyvale-Saratoga Road & Alberta Avenue/Harwick Way
- Sunnyvale-Saratoga Road & Cheyenne Drive/Connemara Way
- Sunnyvale-Saratoga Road & Fremont Avenue
- Sunnyvale-Saratoga Road & Remington Drive
- Sunnyvale-Saratoga Road & Mathilda Avenue
- Mathilda Avenue & El Camino Real
- Hollenbeck Avenue & Homestead Road
- Hollenbeck Avenue & Cascade Drive
- Hollenbeck Avenue & Fremont Avenue
- Hollenbeck Avenue & Torrington Drive
- Hollenbeck Avenue & Remington Drive
- Hollenbeck Avenue & El Camino Real
- Mary Avenue & Homestead Road
- Mary Avenue & The Dalles Avenue
- Mary Avenue & Cascade Drive
- Mary Avenue & Fremont Avenue
- Mary Avenue & Torrington Drive
- Mary Avenue & Remington Drive
- Mary Avenue & Heatherstone Avenue
- Mary Avenue & El Camino Real

Traffic conditions at the study intersections are typically conducted for the AM and PM peak hours under existing and future analysis scenarios.

2. The need for evaluating alternative modes of transportation needs to be emphasized for this Plan. The VTA CMP Guidelines indicate that traffic analysis must include transit facilities in terms of transit service availability, transit capacity relative to the increased demand, impact of increased traffic delays on the service, and the need for transit access improvements. According to the CMP Guidelines, the traffic analysis must also evaluate bicycle and pedestrian facilities in terms of their availability, Plan effects on future bike/pedestrian plans, and improvements proposed by the Plan. Maps and information on existing and planned bicycle facilities can be supplied upon request.

3. Analysis of potential cut-through traffic within the Birdland Neighbors residential area and Ortega Park residential area. Streets to be analyzed should at least include Marion Way, Dunford Way, Inverness Way, Quail Avenue, Heron Avenue, Canary Drive, and Locksunart Way (refer to Figure 1).

4. The Plan area is located on the southerly boundary of the City of Sunnyvale. Relevant approved projects within Sunnyvale and other neighboring jurisdictions need to be included in the study estimates of the Background traffic volumes. This is consistent with the CMP TIA Guidelines. Similarly, pending projects and/or the application of an annual growth rate need to be incorporated in the Cumulative traffic volume estimates to reflect the growth in both the local and regional traffic. Please be advised that the City of Sunnyvale regularly updates a list of its approved and pending development projects, and it can be provided upon request.

5. Besides capturing local and regional traffic growth, it should be noted that Background analysis is typically conducted for the year of project completion and occupancy, while the Cumulative analysis is performed for a longer term horizon year.

6. The Plan proposes a mixed-use development consisting of 600,000 square feet of commercial uses, 2.0 million square feet of office uses, 339 hotel rooms, and 800 residential dwelling units. Construction of the proposed buildings and associated amenities is expected to generate a significant amount of truck traffic. Truck routes and construction related impacts on the City of Sunnyvale and regional corridors need to be investigated and mitigated if necessary.

7. The NOP lists the EIR's requirement to identify the environmental consequences including (a) any significant environmental effects which cannot be avoided, (b) the growth inducing impacts, and (c) the cumulative impacts. Besides identifying the individual and cumulative project impacts along with associated feasible mitigations, it is important to also explain the project's full/pro-rata share financial contributions towards the implementation of these mitigations.

Sunnyvale

8. Any mitigation measures or proposed roadway improvements along Homestead Road should be done in consultation with the City of Sunnyvale.

9. Detailed information on any proposed Transportation Demand Management (TDM) initiatives need to be provided, especially if it is offered as Plan mitigation. Assumptions regarding alternative means for traveling to/from this office development need to be realistic and achievable in light of their implementation and monitoring plan.

10. The Plan is significant in size and is expected to affect the Sunnyvale street system. The City of Sunnyvale is requesting to review the proposed Scope of Work prior to the Consultant starting on the traffic related analysis to ensure the TIA would include all the necessary analyses within the City of Sunnyvale. Then, following the CMP guidelines, the City of Sunnyvale is also requesting to review the draft TIA report. We believe that the early review of the project's traffic analysis and potential impacts could save time in the review and approval process of the EIR.

The City of Sunnyvale appreciates your consideration of the requested study scope elements described above. Please contact Kelly Cha, Associate Planner, at (408) 730-7408 or kcha@sunnyvale.ca.gov if you have any questions or concerns about items discussed in this letter.

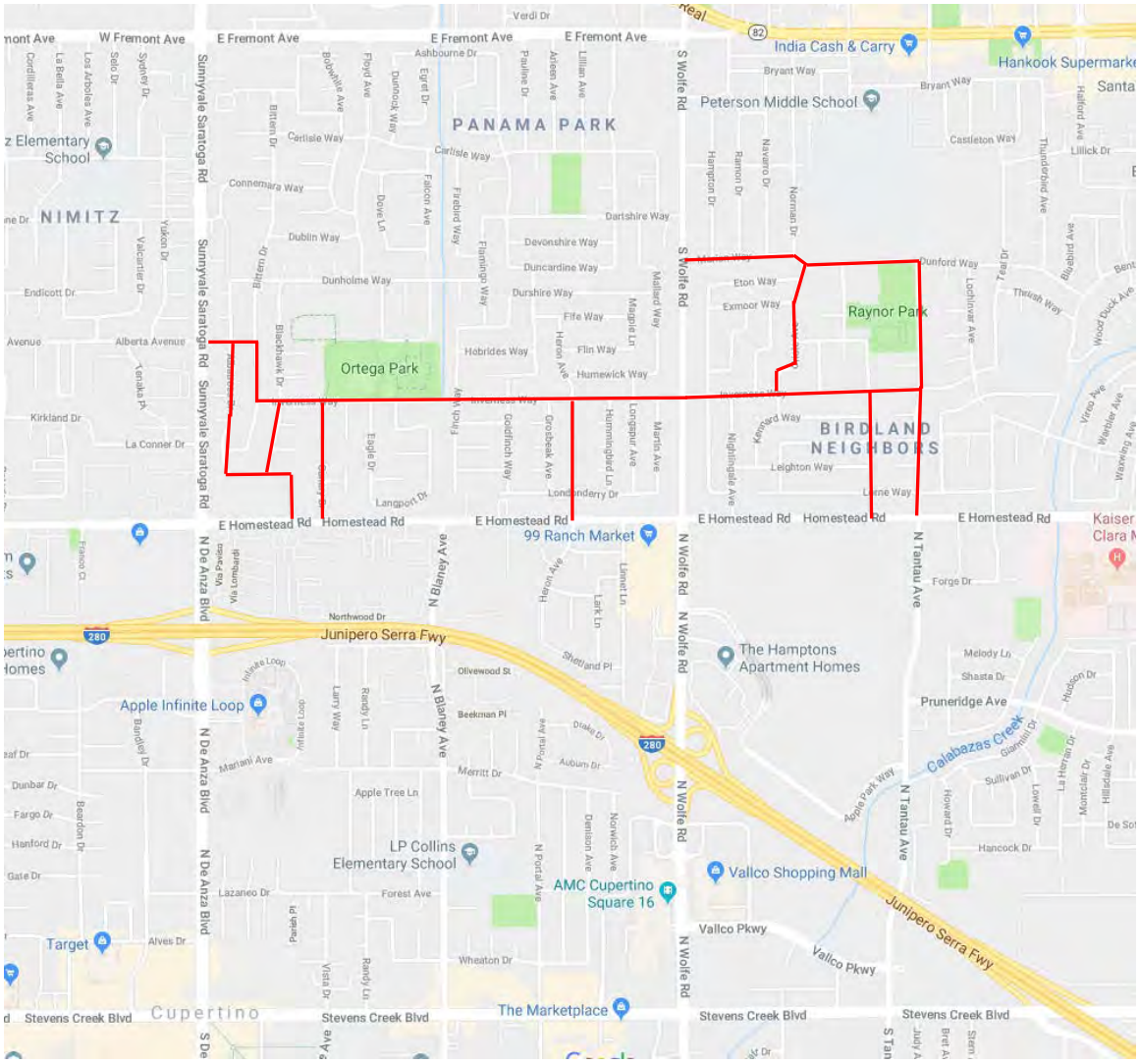
Sincerely,

Andrew Miner
Assistant Director
Community Development Department

Cc: Trudi Ryan, Director, Community Development Department
Wayne Tanda, Interim Director, Department of Public Works
Amber Blizinski, Principal Planner, Community Development Department
Shahid Abbas, Transportation and Traffic Manager, Department of Public Works
Lillian Tsang, Principal Traffic Engineer, Department of Public Works

City of Sunnyvale Comments to the NOP for Vallco Special Area Specific Plan EIR

Figure 1: Cut-Through Traffic Analysis



sv@home

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Kelly Snider Consulting

Jennifer Van Every
The Van Every Group

Staff

Leslye Corsiglia
Executive Director

TRANSMITTED VIA EMAIL

February 22, 2018

Honorable Mayor Paul and Members of the City Council
City of Cupertino
10300 Torre Avenue
Cupertino, CA 95014

Re: Vallco Special Area Specific Plan - EIR Scoping

Dear Mayor Paul, Vice Mayor Sinks, & Councilmembers Chang, Scharf, & Vaidyanathan:

SV@Home thanks the City of Cupertino for providing the opportunity to comment on the scope of the EIR for the Vallco Special Area Specific Plan. The Specific Plan area is a critical opportunity for mixed-use development that can provide for the needs of Cupertino's current and future residents, workers, and economy.

On behalf of our members, we strongly encourage the City to analyze a range of EIR alternatives that includes **a project alternative that maximizes the number of housing units as part of the plan for mixed-use development on the site.**

Cupertino has a jobs and housing imbalance. According to 2014 Census data, Cupertino has 1.7 jobs for every home in the City. Furthermore, when considering the availability of affordable homes for Cupertino's lower-income workers, the mismatch is even more severe. Census data analyzed by the UC Davis Center for Regional Change shows that Cupertino has a jobs-housing fit of 14.1 – meaning that for every 14 low-wage workers employed in Cupertino, there is only one affordable home.

Historically, Cupertino has failed to meet its affordable housing responsibilities while exceeding its market rate production needs. The job and housing affordability mismatch is reflected in the City's RHNA performance; during the last RHNA cycle (2007 - 2014) Cupertino met only 11 percent of its very low-income allocation, 14 percent of its low income allocation, and 24 percent of its moderate income allocation.

Even more critical is the fact that, of the small number of units the City has produced, an overwhelming share are expensive and out of reach for vast majority of people who need housing. This is again reflected the City's RHNA performance, which shows that in the last cycle, the City produced 184 percent of its above moderate-income RHNA, while permitting less than half the number of homes needed for lower-income categories. As a result, ***Cupertino has externalized all of its low-income housing needs*** – which is a major concern, considering that over half of its current RHNA (2014-2022)

350 W. Julian Street, Building 5, San José, CA 95110
408.780.2261 • www.svathome.org • info@siliconvalleyathome.org

is for very low and low-income households. Yet despite exceeding market rate production needs, Census data shows that Cupertino's housing production has significantly slowed since the 1990s, all while the City's population and jobs have grown. The number of units built since 2000 represents only 10.4 percent of the City's overall housing stock.

With Cupertino's employment growth currently outpacing forecasted rates, balanced development in the Specific Plan area – with a mix of housing, office, and retail – is essential. Toward the City's goal of addressing its affordability challenges through balanced growth, we strongly recommend that the EIR scope include the study of a project alternative that maximizes the number of housing units as part of the plan for mixed-use development on the site.

Inclusion of the recommended EIR alternative will support the City's effort to effectively deliberate, and ultimately, decide upon how balance can be achieved on the Vallco site.

Again, thank you for the opportunity to provide feedback through such a robust community engagement effort. We look forward to participating in this evening's EIR Scoping Meeting as well as future phases of the planning process.

Sincerely,

Pilar Lorenzana
Deputy Director

Cc:
Piu Ghosh, City of Cupertino
Aarti Shrivastava, City of Cupertino
Kristy Weis, David J. Powers & Associates

Terry Griffin Sent via email Monday 3/12/2018 2:40 p.m.

I attended the EIR scoping meeting and wanted to submit my feedback.

First, with the work being done to create a new community-driven Vallco Special Area Specific Plan, it seems like this start of a Draft EIR is a case of the cart-before-the-horse. I understand that you are proposing to study 3 alternatives, but without a specific project plan, this seems like an incredible waste of time, resources, and money.

If you are proceeding anyway, as it seems you are, here are my items.

* Traffic - simulate the traffic in the area assuming full population of the Apple Park campus, full development of the allocated housing at the Hamptons, full completion of Main Street, the new hotel at Vallco and the potential hotel at Cupertino Village across from Apple Park.

* Traffic - simulate traffic assuming a mostly retail configuration with occupancy and traffic similar to Valley Fair and Santana Row, i.e. fully occupied and popular shopping/ dining/entertainment destinations. Also look at seasonal differences.

* Traffic - when evaluating traffic impact at the intersections around schools, be sure to look at differences in daily traffic due to school schedules.

* Noise and Air pollution - evaluate noise levels over multiple 24 hour periods at multiple locations on the site. For air pollution, please include studying the effects of micro-particulate rubber from tires on the freeway.

* Reclaimed water - evaluate the viability and potential capacity or lack thereof for extending the reclaimed water from the Apple Park campus.

* Neighborhood impact - Be cognizant that the neighborhood adjacent to Vallco to the west does not want the privacy wall removed or breached under any circumstances.

* Transportation - evaluate potential impacts of making this a Transit Hub.

* Communications - impacts on existing cell tower and Internet bandwidth capacity. Evaluate at different times of day - peak driving, midday, evenings, etc.

* I am concerned about many of the other potential impacts- water supply, impact on

schools and emergency services, reducing carbon emissions, clean energy, historical and cultural impacts, etc.

Again, it would make a lot more sense to do an EIR with a specific project plan, rather than broad-brushing all potential developments. Please consider making more efficient use of your time and resources, and saving all of us the associated costs.

Thanks for your consideration.

Terry

From: tessa parish [redacted]
Sent: Monday, March 12, 2018 10:33 AM
To: City of Cupertino Planning Dept. <planning@cupertino.org>
Cc: City Clerk <CityClerk@cupertino.org>; City Attorney's Office <CityAttorney@cupertino.org>; City Council <CityCouncil@cupertino.org>
Subject: Comments for Vallco EIR NOP

Grateful for your consideration:

I'm writing to you as a resident of Cupertino and as a Realtor, I've been working in Cupertino (my office is in Cupertino) and have been with (previously with Intero Real Estate) since 2005 when Intero opened its doors.

During that time, I've seen the traffic increase to a critical number.

My husband's insurance went up a couple of years ago. When he checked with his agent, he was told that the city of Cupertino has a higher rate now due to the number of accidents. We cannot continue to add more traffic without a SERIOUS, DETAILED and EXTREMELY accurate study of our traffic habits.

The lack of a retail shopping and other miscellaneous shopping adds to the already heavy traffic. If I could do all my shopping in Cupertino, I certainly would.

I encourage that the EIR include the following:

1. I encourage you to study the accidents (a lady just got killed on Bollinger & Miller a few weeks ago.

2. Check out or obtain information from the insurance companies as to why they are charging more for Cupertino.

3. Study and evaluate the number of people that live in Cupertino that work here as well...You will find most do not live here. So, bringing in more housing will NOT ensure they will also work here. If you build it, they will come and so will our traffic and crazy driving of the young techies racing through town.

4. Lastly, if you do build a small amount of housing at Vallco, please consider placing an ordinance that places a property taxes higher for NON-owner occupied, to encourage ownership of owner occupied. (it could be mandatory and added to the

CC&R's that the complex be always limited to a 10% rentals) There are ways that the city can control.

5. Study and evaluate if Airbnb should be in our city. Even if it is 40 units being rented out, those are 40 units that could have our local residents live in. I heard other cities have banned them to limit the lack of housing. (this is relevant to the EIR in that Airbnb brings in more out of town people to congest the city streets)

6. Consider placing an emergency ordinance to limit out of COUNTRY purchase of homes.

While there is a housing problem, I believe a large part of it is being artificially created by investors. Those coming in and out of the city create our traffic problems as well.

Respectfully,

Tessa Parish
Parish Real Estate Group
408.396.8377
www.ParishRealEstateGroup.com
RHM Realty
BRE#01158499

From:	Pearse, Brent
To:	Piu Ghosh
Cc:	Molseed, Roy; "Brian Ashurst - Caltrans (brian.ashurst@dot.ca.gov)"; "patricia.maurice@dot.ca.gov"
Subject:	VTA Comments on Vallco Special Area Specific Plan [CU1801]
Date:	Monday, March 12, 2018 4:11:45 PM
Attachments:	image001.png Development Review Program Contact List 12-8-17.pdf AttachmentA.pdf CU1801_Vallco_NOP_03-12-18_FINAL.PDF

Piu,

Attached are VTA comments on the Notice of Preparation for the Vallco Special Area Specific Plan.

For staff reference, we have also included the attached VTA Contact List for any questions regarding these comments. This Contact List is not intended to constitute public comment or be included in the CEQA comment record for this project.

Thanks for the opportunity to review. Please contact me with any questions.

Sincerely,

Brent Pearse
Transportation Planner

Santa Clara Valley Transportation Authority
3331 North First Street, Building B
San Jose, CA 95134-1927
Phone **408-546-7985**
Mobile **408-550-4559**

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COMMENT CARD (CC)
1 OF 24

VALLCO SHOPPING DISTRICT SPECIFIC PLAN AND THE HILLS AT VALLCO PROJECT

November 10, 2015
Cupertino Community Hall

PUBLIC COMMENT CARD

The City of Cupertino, as Lead Agency under the California Environmental Quality Act (CEQA), will prepare an Environmental Impact Report (EIR) for the above-referenced project. Written comments on the scope of the EIR analysis will be accepted until **November 16, 2015**. Please send comments to Piu Ghosh, Senior Planner.

By Mail: City of Cupertino, Community Development Department
10300 Torre Avenue, Cupertino, CA 95014-3202
By Email: PiuG@cupertino.org *(please include "Vallco" in the subject line)*
Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: Hui-Ching Hsieh Email: [redacted]

Address: [redacted] Phone: _____

COMMENTS:

We need more retail shops, restaurants not more office buildings

CC
2 OF 24

VALLCO SHOPPING DISTRICT SPECIFIC PLAN AND THE HILLS AT VALLCO PROJECT

November 10, 2015
Cupertino Community Hall

PUBLIC COMMENT CARD

The City of Cupertino, as Lead Agency under the California Environmental Quality Act (CEQA), will prepare an Environmental Impact Report (EIR) for the above-referenced project. Written comments on the scope of the EIR analysis will be accepted until **November 16, 2015**. Please send comments to Piu Ghosh, Senior Planner.

By Mail: City of Cupertino, Community Development Department
10300 Torre Avenue, Cupertino, CA 95014-3202
By Email: PiuG@cupertino.org *(please include "Vallco" in the subject line)*
Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: Cathy Wang Email: [redacted]

Address: Cupertino Phone: [redacted]

COMMENTS:

#1 Concern traffic

#2 livability — lost small town feel.

#3 Sustainable ?

#4 I want to stay here, retire (even after my two kids gone to college). Please do not ruin the city that we love.

CC
3 OF 24

VALLCO SHOPPING DISTRICT SPECIFIC PLAN AND THE HILLS AT VALLCO PROJECT

November 10, 2015

Cupertino Community Hall

PUBLIC COMMENT CARD

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By Mail: City of Cupertino, Community Development Department
10300 Torre Avenue, Cupertino, CA 95014-3202
By Email: PiuG@cupertino.org *(please include "Vallco" in the subject line)*
Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: ROBERT BENSCOTER Email: [redacted]

Address: [redacted] Phone: _____

COMMENTS:

Regarding planned use vs needs & Housing concerns
comments re Developer plans

CC
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VALLCO SHOPPING DISTRICT SPECIFIC PLAN AND THE HILLS AT VALLCO PROJECT

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By Email: PiuG@cupertino.org *(please include "Vallco" in the subject line)*
Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: Anne Pflager Email: [redacted]

Address: [redacted] Phone: [redacted]

COMMENTS:

The developers are calling this "the world's largest green roof." This appears to be an extremely water intensive project. We are experiencing increasingly severe multi-year droughts. How can you even consider such a project? This is insanity! We need to conserve our water supply & not waste it on roofs of shopping centers. Consider native landscaping & drought tolerant landscapes

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Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: STUART CHESSER Email: [redacted]

Address: [redacted] Phone: [redacted]

COMMENTS:

What is shaddow pattern & how will affect ~~s~~ existing solar systems.
Will recycle water be used? ~~Water ban~~ Extra rain water collection. Electric car stations for 10% parking. Should have 50% renewable energy source. What ~~pests~~ pesticides will be used? native plants?
Impact of Traffic to nearby Schools
Bike Trails to/From site

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VALLCO SHOPPING DISTRICT SPECIFIC PLAN AND THE HILLS AT VALLCO PROJECT

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Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: JOHN BUENT Email: [redacted]

Address: [redacted] Phone: [redacted]

COMMENTS:

STRONG OPPOSITION TO HILLS PROJECT BECAUSE FOLLOWING POINTS:

1. PROJECT OF "VIRTUAL NATURE" OVERKILL IN OUR DIGITAL CULTURE (APPLE JUST DOWN THE STREET)
2. COSTLY PROJECT TO COMPETE WITH SANTANA ROW / STANFORD SHOPPING / WESTFIELD / MAIN STREET
3. INCREASED USE WATER IN FACE OF PROSPECT OF DROUGHT
4. ADDS TO FOCUSED TRAFFIC CONGESTION (APPLE / MAIN STREET)
5. OUT OF CHARACTER FOR CITY HISTORY / CHARACTER

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VALLCO SHOPPING DISTRICT SPECIFIC PLAN AND THE HILLS AT VALLCO PROJECT

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By Email: PiuG@cupertino.org *(please include "Vallco" in the subject line)*
Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: Xiaowen Wang Email: [redacted]

Address [redacted] Phone: [redacted]

COMMENTS:

1. The impact of massive office building on the next RSNA cycle. The increased employment will be factored in the ABAG's formula for [redacted] the RHNA calcalation. How such office allocation would result in the RHNA requirement?
2. The total enrollment of school due to the project should be calculated based on both ~~employee~~ housing and office on site.
3. The traffic study should be also include the sarrounding secondary road, such as, Blaney, Portal, Fantau, Estate, Finch.

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Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: Jennifer Griffin Email: [redacted]

Address:_____ Phone:_____

COMMENTS:

I thought the Specific Plan was going to be worked on by the public. This does not seem to be the case. The Specific Plan should be a plan worked on by the public.

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Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: _____ Email: _____

Address: _____ Phone: _____

COMMENTS:

Public not involved in the specific planning process. Current city process hasn't allowed public input.

The more I learn of the process & Hills Project, the more questions and concerns I have!!!

Some citizens have even suggest that the citizens of Cupertino vote to determine the viability of this ambitious building project.

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By Email: PiuG@cupertino.org *(please include "Vallco" in the subject line)*
Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: Hongwei Duan Email: [redacted]

Address: [redacted] Phone: _____

COMMENTS:

We are against the idea of
redevelopment of the Mall to
have more population.
It's a disaster for the residents
It's bad traffic. bad over-population

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VALLCO SHOPPING DISTRICT SPECIFIC PLAN AND THE HILLS AT VALLCO PROJECT

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By Email: PiuG@cupertino.org *(please include "Vallco" in the subject line)*
Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: Ruiwei Wang Email: _____

Address: [redacted] Phone: _____

COMMENTS:

We say NO to the re-building plan of Vallco Mall.
We worried about traffic, environment etc. We don't like to live in a over-populated place.

CC
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VALLCO SHOPPING DISTRICT SPECIFIC PLAN AND THE HILLS AT VALLCO PROJECT

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By Email: PiuG@cupertino.org *(please include "Vallco" in the subject line)*
Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: Ray Martin Email: _____

Address: [redacted] Phone: [redacted]

COMMENTS:

I would like a "Notice of Availibility of the Draft EIR" when availible

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VALLCO SHOPPING DISTRICT SPECIFIC PLAN AND THE HILLS AT VALLCO PROJECT

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By Email: PiuG@cupertino.org *(please include "Vallco" in the subject line)*

Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: _____ Email: _____

Address: _____ Phone: _____

COMMENTS:

We deserve Retail!! Toilets for retail vs housing/office

Shadowing to neighbors houses - NO SUN

Infastructure Water, electric, sewer, etc

Air pollution - cars, etc

Noise levels for neighbors

Impact on trees - already compromising trees -

killed trees at Main St on purpose

not taking care of them

Quality of life

Impact on neighborhood & city Infastructure

Where is water, electric going to come from

You are allowing this bldg - which is taking General Plan office + housing, for NEXT 20 Years in 1 project allotment

Buffer trees are suffering

Because of this project a new school on a very small site - back to back to another school - Build at Vallco instead let them build Impact on our neighborhood on all levels is awful

NO way out of our neighborhood

Talk about impact

Bcause of this project a new school on a very small site - back to back to another school - Build at Vallco instead let them build Impact on our neighborhood on all levels is awful

NO way out of our neighborhood

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VALLCO SHOPPING DISTRICT SPECIFIC PLAN AND THE HILLS AT VALLCO PROJECT

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By Email: PiuG@cupertino.org *(please include "Vallco" in the subject line)*
Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: Jennifer Griffin Email: [redacted]

Address: _____ Phone: [redacted]

COMMENTS:

Double row of ash trees on ~~West~~ east and west sides of Wolfe Road from Stevens Creek Blvd. to Homestead Road need to be protected as part of city infrastructure. Double row of ash trees along Vallco frontage on Stevens Creek Blvd. need to be protected as city infrastructure. Public expectations that the double row of ash trees will remain during any building will survive any building and be present for next 100 years or more as Cupertino Greenbelt / Public Infrastructure.

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By Email: PiuG@cupertino.org *(please include "Vallco" in the subject line)*
Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: Heather Dean Email [redacted]

Addres [redacted] Phon [redacted]

COMMENTS:

FIRST impression "Sounds to good to be true"; Observation that project starts one way and change dramatically during construction, what we hear tonite- how firm is it and how is it going to change away from what is good for Cupertino Community. As in everything in this area how will we move around because of traffic, traffic traffic!

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VALLCO SHOPPING DISTRICT SPECIFIC PLAN AND THE HILLS AT VALLCO PROJECT

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Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: Charles Cadeau Email [redacted]

Address: [redacted] Phone: [redacted]

COMMENTS: / QUESTIONS:

* What will be done to alleviate traffic jam?
* If drought conditions persist, would there be an alternate plan to replace the massive landscaping proposal?
* When is the next public meeting / forum?
* What will the make-up of the retail space be (i.e. restaurants, stores, "cultural stores")

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Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: Longching Yeh Email: [redacted]

Address: [redacted] Phone: [redacted]

COMMENTS:

I am concerned two things

①. The size & scale of the development of Vallco center is very large & aggressive enough that might impact the Cupertino community current situations, i.e. peaceful, rich of culture & safety of living. suitable but already worsen. traffic situation

② luther site can be a choice of new elementary school, not the Collins sites. Currently, in the morning, traffic in Portal Ave is heavy, I am concerned and Nan-Allen

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Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: Huang Email: _____

Address: [redacted] Phone: _____

COMMENTS:

We really are concerned for Environment that new or rebuilding will affect us.

Please stop damage our air, our place to live.

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Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: Martin Won Email: [redacted]

Address: _____ Phone: _____

COMMENTS:

1) Is there a safety barrier at the edge of the "green roof"?

2) What safety precautions are in place to prevent accidents and suicides that the height of the roof will attract?

3) How will the traffic change (wait times, average and/or worst-case travel times) in all surrounding streets, intersections, and all streets passing and feeding the Vallco development (taking Apple into account) including Stevens Creek Blvd, Homestead, Wolfe, 280 onramps and offramps, etc.

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Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: dianne stauffer Email: [redacted]

Address [redacted] Phone: [redacted]

COMMENTS:

What is ~~the time line for this project~~?
Are the residences for ownership or rental?
Is the developer of the Hills the same one involved in the shopping center? That project is at a stand still. Any guarantee the developers will not go bankrupt?

CC
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VALLCO SHOPPING DISTRICT SPECIFIC PLAN AND THE HILLS AT VALLCO PROJECT

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Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: Qin Pan Email: [redacted]

Address: [redacted] Phone: [redacted]

COMMENTS:

Today I tried to drop my kids at dance class at Happy Donut plaza, it take me 7 minutes get into the plaza, as the plaza is filled with Basiness related to kids activity.

This make me worried when Apple new campus and Hills at Valco ready, they are so close to each other How long it going to take me from my house to 280? or from 280 to my house after work? How Hills in valco enforce people using bike and walk?

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VALLCO SHOPPING DISTRICT SPECIFIC PLAN AND THE HILLS AT VALLCO PROJECT

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Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: HARRIS AU Email: [redacted]

Address: [redacted] Phone: [redacted]

COMMENTS:

800 ADDITIONAL RESIDENTIAL UNIT ARE WAY TOO EXCESSIVE. TRAFFIC AT PRESENT IS ALREADY VERY ~~CONGESTED~~ CONGESTED. WE DON'T WANT THIS PROJECT TO TURN CUPERTINO INTO A BIG PARKING LOT. THE MAXIMUM NO. OF ADDITIONAL RESIDENCE IS ~~BETWEEN~~ 100 UNITS. ~~100 — 200 300 TO 800~~ ~~UNITS.~~

Nov. 10, CC 23 OF 24

VALLCO SHOPPING DISTRICT SPECIFIC PLAN AND THE HILLS AT VALLCO PROJECT

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By Email: PiuG@cupertino.org *(please include "Vallco" in the subject line)*

Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: Carrie O'Leary Email: [redacted]

Address: [redacted] Phone: [redacted]

COMMENTS:

Please review these:

1. Parking spaces - are there enough for all the office workers AND all the shoppers at all times of the day?
2. What amount of time will the additional traffic add to Stevens Creek, Wolfe, 280 N+S between Magdalena & Winchester
3. How many cars will be added?
4. Why is Sandhill able to build Senior Housing now after claiming no expertise for Main St.
5. Why did the City Manager recommend the City [illegible] add 2 million sq ft of office space BEFORE negotiating with Sandhill?

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Online: www.cupertino.org/access *(please select "The Hills at Vallco" topic)*

Name: Caleb Lee Email: [redacted]

Address: [redacted] Phone: [redacted]

COMMENTS:

Need inform what is benefit of Cupertino citizen from The Hills at Valko Project. what is the most concern from the city of Cupertino? Revenue, welfare of cizizen, entertainment center, education, Shoping convinence, better place ~~to~~ live?
It seems an excellent project but there is not much awareness from citizen. It must be the most favable place Cupertinonean enjoy and proud.
Thanks

COMMENT CARDS TRANSCRIPTION
THE HILLS AT VALLCO
ENVIRONMENTAL IMPACT REPORT SCOPING MEETING
NOVEMBER 10, 2015

Comment 1 of 24

Hui-Ching Hsieh
[redacted]

We need more retail shops, restaurants not more office buildings.

Comment 2 of 24

Cathy Wandy
Cupertino
[redacted]

#1 Concern traffic
#2 Livability – lost small town feel.
#3 Sustainable?
#4 I want to stay here, retire (even after my two kids gone to colleges). Please do not ruin the city that we love.

Comment 3 of 24

Robert Bensaten
[redacted]

Regarding planned use vs needs & housing concerns comments re developer plans.

Comment 4 of 24

Anne Pflager
[redacted]

The developers are calling this the world's largest green roof? This appears to be an extremely water intensive project. We are experiencing increasingly severe multi-year droughts. How can you even consider such a project? This is insanity! We need to conserve our water supply not waste it on roofs of shopping centers. Consider native landscaping & drought tolerant landscapes.

Comment 5 of 24

Stuart Chessen
[redacted]
[redacted]

What is shadow pattern & how will affect existing solar systems. Will recycle water be used? Extra rain water collection. Electric car stations for 10% parking. Should have 50% renewable energy source. What pesticides will be used? Native plants? Impact of traffic to nearby schools. Bike trails to/from site.

Comment 6 of 24

John Buenz
[redacted]
[redacted]

Strong opposition to Hill project because following points:

1. Project of "virtual nature" overkill in our digital culture (Apple just down the street)
2. Costly project to complete with Santana Row/Stanford/Saratoga/Westlake/Main Street
3. Increased use of water in face of prospect of drought
4. Adds to focused traffic congestion (Apple/Main St)
5. Out of character for city history/character

Comment 7 of 24

Xiaowen Wang
[redacted]
[redacted]

1. The impact of massive office building on the next RSNA cycle. The increased employment will be factored in the ABAG's formula for the RHNA calculation. How such office allocation would result in the RHNA requirement?
2. The total enrollment of school due to the project should be calculated based on both housing and office on site.
3. The traffic study should also include the surrounding secondary road, such as, Blaney, Portal, Fantau, Estate, Finch.

Comment 8 of 24

Jennifer Griffin [redacted]

I thought the Specific Plan was going to be worked on by the public. This does not seem to be the case. The Specific Plan should be a plan worked on by the public.

Comment 9 of 24

No name
No address

No email
No phone

Public not involved in the specific planning process. Current city process hasn't allowed public input. The more I learn of the process & Hills project, the more questions and concerns I have!!! Some citizens have even suggest that the citizens of Cupertino vote to determine the viability of this ambitious building project.

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Hongwei Duan [redacted]
[redacted]

We are <u>against</u> the idea of redevelopment of the Mall to have more population. It's a disaster for the residents. Its bad traffic, bad over-population.

Comment 11 of 24

Ruiwei Wang
[redacted]

We say NO to the re-building plan of Vallco Mall. We worried about traffic, environment etc. We don't like to live in a over-populated place.

Comment 12 of 24

Ray Martin
[redacted] [redacted]

I would like a "Notice of Availability of the Draft EIR" when available.

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No name
No address

No email
No phone

We deserve retail!! Toilets for retail vs housing/office!
Shadowing to neighbors – NO SUN
Infrastructure water, electric, sewer, etc
Air pollution – cars, etc
Noise levels for neighbors
Impact on trees – already compromising trees – killed trees at Main St. on purpose not taking care of them… Buffer trees are suffering
Quality of life
Impact on neighborhood & city infrastructure
Where is water, electricity going to come from?
You are allowing this bldg. – which is taking General Plan office + housing allotment for NEXT 20 years in 1 project
Because of this project a new school on a very small site – back to back to another school – Build at Vallco instead. Let them build school at Vallco.
Impact on our neighborhood on all levels is awful
NO WAY out of the neighborhood
Talk about impact wow

Comment 14 of 24

Jennifer Griffin [redacted]

Double row of ash trees on east and west sides of Wolfe road from Stevens Creek Blvd. to Homestead Road need to be protected as part of city infrastructure. Double row of ash trees along Vallco frontage on Stevens Creek Blvd. need to be protected as city infrastructure. Public expectation that the double row of ash trees will remain during any building will survive any building and be present for next 100 years or more as Cupertino Greenbelt/Public Infrastructure.

Comment 15 of 24

Heather Dean
[redacted]

[redacted]

First impression "sounds too good to be true." Observation that project starts one way and change dramatically during construction. What we hear tonite- how firm is it and how is it going to change away from what is good for Cupertino Community. As in everything in this area how will we move around because of traffic, traffic traffic!

Comment 16 of 24

Charles Kippear [redacted]
[redacted]

Questions:

- What will be done to alleviate traffic jams?
- If drought conditions persist, would there be an alternate plan to replace the massive landscaping proposal?
- When is the next public meeting/forum?
- What will the make-up of the retail space be (i.e. restaurants, stores, “cultural stores”)

Comment 17 of 24

Long Ching Yeh [redacted]
[redacted]

I am concerned two things

1. The size & scale of the development of Vallco Center is very large & is aggressive enough that might impact the Cupertino community current situation, i.e. Peaceful, rich of culture & safety of living, suitable but already worsen traffic situation.
2. Luther site can be a choice of new elementary school, not the Collins and Nan-Allen sites. Currently in the morning traffic in Portal Ave is heavy. I am concerned about the safety of children if the site is selected for new school.

Comment 18 of 24

Huang [redacted]

We really are concerned for Environment that new or rebuilding will affect us.

Please stop damage our air, our place to live.

Comment 19 of 24

Martin Won [redacted]

1. Is there a safety barrier at the edge of the "green roof"?
2. What safety precautions are in place to prevent accidents and suicides that the height of the roof will attract?
3. How will the traffic change (wait times, average and/or worst-case travel times) in all surrounding streets, intersections, and all streets passing and feeding the Vallco development (taking Apple into account) including Stevens Creek Blvd, Homestead, Wolfe, 280 on ramps and off ramps, etc.

Comment 20 of 24

Dianne Stauffer [redacted]

Are the residences for ownership or rental?

Is the developer of The Hills the same one involved in the shopping center? That project is at a standstill. Any guarantee the developers will not go bankrupt?

Comment 21 of 24

Qin Pan [redacted]

Today I tried to drop my kids at dance class at Happy Donut plaza, it take me 7 minutes get into the plaza, as the plaza is filled with business related to kids activity.

This make me worried when Apple new campus and Hills at Vallco ready they are so close to each other. How long it going to take me from my house to 280? Or from 280 to my house after work? How Hills in Vallco enforce people using bike and walk?

Comment 22 of 24

Harris Au [redacted]

800 additional residential unit are way too excessive. Traffic at present is already very congested. We don't want this project to turn Cupertino into a big parking lot. The maximum no. of additional residence is 100 units.

Comment 23 of 24

Carrie Oleary
[redacted]
[redacted]

Please review these:

1. Parking spaces- are there enough for all the office workers AND all the shoppers at all times of the day?
2. What amount of time will the additional traffic add to Stevens Creek Wolfe, 280 N & S between Magdalena & Winchester?
3. How many cars will be added?
4. Why is Sandhill able to build Senior Housing now after claiming no expertise for Main St?
5. Why did the City Manager recommend the City Council add 2 million sq. ft. of office space BEFORE negotiating with Sandhill?

Comment 24 of 24

Caleb Lee
[redacted]
[redacted]

Needs inform what is benefit of Cupertino citizen from The Hills at Vallco project. What is the most concern from the City of Cupertino? Revenue, welfare of citizen, entertainment center, education, shopping convenience, better place to live? It seems an excellent project but there is not much awareness from citizen. It must be the most favorable place Cupertinoneans enjoy and proud. Thanks.

From: santorojj@ [mailto:comcast.net [redacted]]
Sent: Monday, June 29, 2015 12:22 PM
To: City Council
Subject: Growth

We are objecting to the new building height allowance being considered by the Cupertino City Council. No buildings one 5 story's. Make sure that a schools can handle the influx of new students - do they have the money or property to add new schools if the impact of these plans add too many new students. Schools are one of the top attractions when parents are looking for a good education for their children.

We want Cupertino to maintain its' suburban environment as much as possible.
Please consider our concerns when you vote on issues of growth in the near future.

Jerry and June Santoro
[redacted]
[redacted]

From: Better Cupertino [mailto:[redacted]]
Sent: Thursday, September 03, 2015 12:58 AM
To: City Council; City of Cupertino Planning Dept.
Cc: [redacted]
Subject: Portal Park Will Remain a Neighborhood Park

Dear Mayor and Council members,

The enclosed email has been sent to the CUSD-discuss google group to inform CUSD parents about the reality of the "new K-5" or K-8 school that Sand Hill is proposing on the tiny 3-acre lot on Nan Allan site. We are strongly against that proposal since Collins is already an overcrowded school with 700 students. The listed school lot size of Collins is 11.3 acres. And Collins should be expanded to include Nan Allan and TRC for the existing 700 students only. No more. If Sand Hill would like to donate a new school, Sand Hill should donate the entire school include a full-size lot of 13.7 acres for a school of 700 students.

We strongly oppose adding another school on top of an already overcrowded school.

If your plan includes annexing Portal Park as a part of the "new" school, be sure that you will face strong opposition from the North Blaney neighborhood. The very tiny Portal Park, already too small for the population of North Blaney neighborhood, is the only park in that area. The neighborhood already fought to protect the park when CUSD wanted to annex it into a middle school. The neighborhood would fight tooth and nails to protect our only park. The 30-acre sky park, which may or may not be realized, is no replacement for Portal Park.

And please do remind Sand Hill that Vallco should still provide the required 3 acres parkland per 1,000 residents in true parkland. It cannot be replaced by any area in their sky park.

Do not even allow partial access to Portal Park during the school day. Portal Park belongs to the neighborhood. Families with young children and seniors need access to the park during the day.

Many members of BetterCupertino are from North Blaney. If any one ever considers to take Portal Park away, BetterCupertino will fight against the proposal with full force with the North Blaney neighborhood.

Superintendent Wendy mentioned in McAuliffe PTF meeting that the City Council supports the "new K-5" school. This issue was never discussed in any council agenda. I assume that it was determined in closed meeting behind closed doors. And in a meeting without any community member or representative from the parent community of North Blaney neighborhood, the very neighborhood that's impacted by your proposal.

Please do involve the "community" in any discussion of "community benefits" or "voluntary community amenities" as you like to call it now. Any such private deals negotiated between elected officials and developers should be avoided for potential conflict of interest and violation of the Brown Act.

Sincerely,

BetterCupertino

---------- Forwarded message ----------
From: **Liang C** <[redacted]>
Date: Thu, Aug 27, 2015 at 6:46 AM
Subject: Exciting News about NEW K-5 School is NOT So Exciting
To: [redacted]

Everyone must have gotten the email from CUSD about the "exciting" new school. However, the truth is not so exciting. The proposal would essentially add 700 more students to the current (already crowded) site of Collins Elementary with a separate entrance on N. Portal and call it a "new school".

Mette asked me to post what I found about this "NEW K-5 School" to be funded by Sand Hill as a Community Benefits for Vallco redevelopment project.

The exciting news is

- Delivery of a newly constructed elementary school (K-5) at the former Nan Allan Elementary School site (located on N. Portal Avenue) which would accommodate 700 new students,

Here is a map of the Nan Allan Elementary School:
https://drive.google.com/file/d/0B7RMc9DXGhUAME9iY2sxWjJwUzQ/view?usp=sharing

Nan Allan (Nan Allen on the map) is the site currently released to Bright Horizon.

Here are some facts:

Nan Allan (Bright Horizon) = 1.5 acre
TRC (Teacher Resource Center) = 1.5 acre
Collins' Size (current in use) = 8 acres (including the green sports field)
Collins' Lot Size listed in Cupertino's General Plan = 11.8 acres
Capacity of Collins - 598 students
Current Enrollment = 700-720 students
Recommended Lot Size for 700-750 students = 13.7 acres. (According to "Guide to School Site Analysis and Development," published by The School Facilities Planning Division of the California Department of Education. -- Environment Impact Report of Cupertino's General Plan)

As you can see, the site for Collins Elementary is supposed to include Nan Allan and TRC to get to a total close to 11 acres. Yet, that's still below the State Guideline of 13.7 acres.

Now the "exciting" new K-5 school simply adds 700 more students to the 11 acre site, which is hardly even big enough for the current 700 students.

So, here is Sand Hill's contribution on "Community Benefits". Take a school that's already one of the most crowded. Double its number of students and then do some facelift. And that gives them a free pass to add 411 more housing units to the 389 units allocated by Cupertino Council.

If you haven't already, here is the "exciting" 30-acre sky-park proposed for Vallco.
http://www.bizjournals.com/sanjose/news/2015/08/26/vallco-plans-revealed-30-acre-sky-park-over.html

Except the cool green rooftop garden, which might end up to be a pile of yellow dirt either due to drought or bad maintenance, Sand Hill is still going to build 2 million square feet of office (add 10,000 to 12,000 people to rush hour traffic), 800 housing units (when Cupertino Council only approved 389 units) and 625,000 s.f. of retail (50% of the current retail space in Vallco).

So, the proposal still does not address important issues like traffic congestion and school overflow at all. The cool looking green rooftop does not make these other issues magically disappear unless Sand Hill thinks that Cupertino residents are easily fooled by a pretty "dress."

Liang

> ---------- Forwarded message ----------
> From: **CUPERTINO UNION ELEM SCH DIST** <email@blackboard.com>
> Date: Wed, Aug 26, 2015 at 12:00 PM
> Subject: Exciting News re: Cupertino Union School District
> To: [redacted]
>
> A message from CUPERTINO UNION SCHOOL DISTRICT
>
> August 26, 2015
>
> Dear CUSD Community:
>
> I'm about to step into a meeting where there will be an announcement of exciting news regarding the redevelopment project at Vallco Mall and the opportunities it presents for the students of the Cupertino Union School District. Before I step in I wanted to keep you informed as well.
>
> At the June 16th Board Meeting, the Cupertino Union School District Board of Education publicly entered into a Letter of Intent (LOI) with Sand Hill Property Company (Sand Hill) in order to continue exploring ways to enhance the quality of education for students within our District. Although signed, the LOI is contingent on the City of Cupertino approving *"The Hills"* at Vallco redevelopment project.

As a school district, we do not govern redevelopment projects as that power falls under the jurisdiction of the City of Cupertino. However, as stewards of the District, it is our obligation to properly plan for redevelopments that may be approved by the city. The obligation of the developer is to pay only state mandated developer fees.
In wanting to keep the community informed, this letter will provide you with a synopsis of the LOI and what was approved by our Board of Education to ensure quality education for our students.

At the core of our negotiating, we, both the District and Sand Hill, were driven by the idea that the proposed redevelopment should not impact any of our schools. The developer fees for the future Vallco redevelopment would likely total approximately $2 million. With that in mind, we began the process of securing commitments from Sand Hill that, over time, evolved into a package worth a total of $20 million.

In the event the City of Cupertino approves *"The Hills*" at Vallco redevelopment, here are a few highlights of the benefits the District would receive:

- Delivery of a newly constructed elementary school (K-5) at the former Nan Allan Elementary School site (located on N. Portal Avenue) which would accommodate 700 new students,
- Replacement of portables with permanent buildings at Collins Elementary School
- Enhancement of the play fields between Collins Elementary School and Nan Allan Elementary School.

Additionally, we secured a $1 million donation from Sand Hill to fund an endowment to help support our annual 8th grade Yosemite experience, a tremendously valuable educational program and tradition our students look forward to every year.

As Superintendent, you have my commitment that if the LOI becomes effective, the District will embark on a community engagement process in order to actively seek public input on the potential new school.

This effort represents unprecedented collaboration between the District and property owners. The new and improved schools will not only accommodate students from *"The Hills"* at Vallco and provide space for hundreds of existing students, but also provide space for future students and relieve pressure from existing schools. If approved, *"The Hills"* at Vallco will not only protect, but improve and strengthen our schools.

Regardless of what direction the City of Cupertino takes with Sand Hill's project, this agreement is a testimony that we are a District whose sole focus is on creating opportunities that will enhance every aspect of the student experience. That mission is what makes me proud to be a part of the Cupertino Union School District family.

I thank you for your time. If you have any questions, feel free to contact my office.

Sincerely,

Wendy Gudalewicz

Superintendent

File attachments:
Vallco Mall Redevelopment Project Update 08.26.15.pdf
This e-mail has been sent to you by CUPERTINO UNION SCHOOL DISTRICT. To maximize their communication with you, you may be receiving this e-mail in addition to a phone call with the same message. If you no longer wish to receive email notifications from CUPERTINO UNION SCHOOL DISTRICT, please click here to unsubscribe.

From: MaryAnn [mailto:[redacted]]
Sent: Monday, October 05, 2015 4:07 PM
To: City of Cupertino Planning Dept.
Subject: Cupertino Hills and other area developments

As I luckily drive the reverse commute and look at the parking lot on 280 at 3:45 on a Monday I'm reminded to send in this inquiry.

Although the project of the Hills at Cupertino looks progressive and innovative I have to ask the Cupertino Planning department as well as other local Planning departments if they have required funding for VTA line development from these organizations and development companies that will be making an excessive amount of profit on these projects, while creating a nightmare on our roadways.

We all know the gridlock that has been created yet all the cities in the region continue to be enticed by the profits from these developments and organizations. The same funding question should be asked regarding those businesses being built on 237. The highway infrastructure cannot accomodate what currently exists let alone the development that is already visible.

An easy way to quickly develop a feasible and efficient VTA infrastructure is to require these companies to fund a portion of the line for light rail before they can open their doors. This would enable the local cities to quickly build a practical, connected infrastructure that residents might see as a faster, convenient mode of transportation. If this funding hasn't been required as of yet, Council should consider this for any current developments underway, as well as any future developments planned. If I need to attend a planning session please advise.

I moved here 15 years ago because the area was amazingly beautiful. Unfortunately greed and capitalism have now made it gridlock quickly approaching that of LA. In time this will likely hurt the value of homes, certainly the environment, and even the overall culture of the residents, both social and collaborative which makes Silicon Valley thrive.

Until the highway interchanges are reasonably widened to accommodate the current load (i.e. 280/85; 85/237) and a solid alternative infrastructure is developed, similar to that of the New York subway station, residents will continue to drive their cars because, although they might live next to a light rail, they won't work next to one or shop next to one or attend school next to one. It is currently a failed plan that won't see even a slight impact for at least a decade.

Leveraging quick funding from these organizations would be a great way to advance progress for the betterment of the communities at large vs only a select corporate few.

I'm happy to speak at a session as needed.

MaryAnn Sullivan
Cupertino Resident
[redacted]

From: paulette altmaier [mailto:[redacted]
Sent: Wednesday, October 07, 2015 9:28 AM
To: City Council
Subject: Hills at Vallco - Scott Herhold's column in the Merc on vision vs reality

Dear Cupertino City Council,
I had previously emailed you very enthusiastic about the Hills at Vallco. But after reading Herhold's column I have serious doubts about how this project might morph.

I am also concerned about the City Council's role in permitting projects to gradually morph into something very different from what residents were promised.

Before I support this project, I would want to know what guarantees the developer will provide this time around, in particular that the gardens will actually be built.

And I would also want to understand why the Council approved so many changes to Main St Cupertino, and why we should trust that this project will not also change gradually but unmistakably to something much different from what is being marketed to us now.

Paulette Altmaier
[redacted]
Cupertino

From: Better Cupertino [mailto:[redacted]
Sent: Saturday, October 10, 2015 11:32 AM
To: City Council; City of Cupertino Planning Dept.; City Clerk
Subject: The Performance of Shopping Malls are Improving Nationwide

[Please put this on record for community comments for Vallco.]

Dear Mayor, Vice Mayor, Councilmembers and Planning Commissioners,

Shopping Malls are on the decline? That's a myth spread by peopling looking at only one piece of the puzzle with a ulterior motive. Some shopping centers are closing due to neglect or a reduction in population or a change in local economy. Some retailers are not doing well as they restructure and adjust. But overwhelmingly more retailers are doing better and better.

This CNBC report shows that shopping centers in US are doing even better than before and continue improving.

Malls outperforming the shopping center industry, March 30, 2015
http://www.cnbc.com/2015/03/30/malls-outperforming-the-shopping-center-industry.html

Forget all those images of abandoned malls filled with snow. As the shopping center industry consolidates from weaker properties shuttering their doors, rents, occupancy rates and productivity are all on the rise.

According to data released Monday by the International Council of Shopping Centers, an industry trade group, occupancy rates ended 2014 at 92.7 percent, the highest since the throes of the recession in second-quarter 2008.

For the often-dragged-through-the-mud mall segment, occupancy rates reached a level not seen since fourth-quarter 1987, of 94.2 percent.

Base rents at shopping centers increased 6.5 percent on the year, their third-straight year of gains. Base rents at malls grew 17.2 percent, representing the strongest annual gain since ICSC and the National Council of Real Estate Investment Fiduciaries began tracking the data in 2000.

Net operating income at shopping centers and malls also saw the highest annual growth rate since the organizations began compiling data.

"The 2014 data paints a very strong picture of the shopping center industry for the year ahead, and is especially promising in the mall segment," ICSC spokesperson Jesse Tron said in a news release.

That's not to say that things are running smoothly throughout the entire sector. Retailers from RadioShack to Sears are either filing for bankruptcy or closing hundreds of stores to stay relevant in an era of digital price comparisons and online ordering.

Similarly, malls across the U.S. that were neglected by their owners, located in an area where there's been a large population shift or exodus, or lost shoppers to a new, better-run property have been

demolished or otherwise forgotten.

A recent study by FBIC analyst Deborah Weinswig, citing data from CoStar, found that among seven troubled retailers, including J.C. Penney and Kmart, the majority of the endangered locations are in smaller markets with less population and income density, or in an economically distressed region.

Even healthy retailers such as Macy's have begun pruning their store fleets as more shoppers make purchases online, causing a steady slide in traffic.
In an interview earlier this month, Tron downplayed the impact of the Internet on store closings.

"Stronger retailers stay, weaker retailers go, and it's been that way forever," he said.

From: [redacted] On Behalf Of Chris Hastings
Sent: Saturday, October 17, 2015 11:35 AM
To: City Council
Subject: The Hills at Vallco

Please allow new housing in Cupertino so that rent prices don't skyrocket. There are many young professionals like me who are getting started in non-technical careers in the Bay/Silicon Valley area that can't afford the rent spikes that are likely when Apple's new facilities open.

From: Yan Yu [mailto:[redacted]]
Sent: Monday, October 19, 2015 9:38 PM
To: City Council
Subject: Re: Concerns about the Vollco project: We would like to help and please let us help!

Dear Cupertino Council member,

I would like to clarify one sentence included in my previous email:

"I am interested to know more details about this project, for example, how many people of various types would it bring in?" By various types, I meant whether these people will become the new residents living in Vallco, or work in the new office spaces in Vallco, or transient shoppers. The first two types would not only add daily commute traffic, but also impose much higher demand on other city and community services as well.

I apologize for the confusion in my previous email, and thank you for attention!

Best,

yan

On Mon, Oct 19, 2015 at 1:27 PM, Yan Yu <[redacted]> wrote:

Dear City council officers, Happy Monday!

I am very concerned about the Vallco project. I would like to ask this correspondence to be included in the public records

High density living brought by the Vallco project shall have direct and indirect impacts on health and wellbeing of residents living in and near the Cupertino Area. Direct impacts include air quality, climate, water quality, noise, insufficient capacity from existing Cupertino city and community service infrastructure. Indirect impacts affect more distal determinants of health, such as social connections, access to services and restricted physical activity imposed by high density living. Among residents of all ages, children and older people are particularly impacted by and vulnerable to these detrimental effects. For example, seniors and children are particularly vulnerable to traffic accidents and increased crimes brought by high density living. I am wondering whether the Cupertino city or Vallcos developers have a concrete plan to address those issues satisfactorily before any Vallco rebuilt plan can be approved by the city?

I heard that the vallco project includes 800+ residential units, which would imply a few thousands (up to five thousand) new residents to Cueprtino, which is up to significant 8% (5000/60000 based on 2013 data) of existing Cupertino population.
I am interested to know more details about this project. For example, how many people of various types would it bring in? how much more rush hour traffic and non-rush hour traffic it would incur? How many more school-aged kids it would incur to increase load on the

already strained school system. How much more demand it would put on the existing service infrastructure, e.g., fire/police department, library, community service, school system, transportation system, etc.

If we need to boost up existing city infrastructure to meet greatly increased demand, who is going to pay for the infrastructure and staff upgrade? Is the developer going to pay for this? Or it comes from existing property tax and sale tax? Cupertino residents and tax payers have rights to know all the developmental implications and details to make sure that Cupertino city is still a desirable livable city. The reason that I bought a house in Cupertino is because I thought Cupertino is a nice place to live. However, I start to have serious doubts on this now with many recent high-density developmental plans. The new Apple building already increased office space and local traffic dramatically, I hope the city could be cautious, responsible and hold accountable on any new future development plan. At this point, as a very concerned and responsible Cupertino resident, I object to any vollco rezoning plan that involves increasing residential or office space.

If the city needs help in understanding and researching the issue, I am very happy to help. I would love to be present in any such future planning meeting. Please let me know how can I help.
Best,
yan

PS. I hope city could hold regular town hall meetings at a convenient hour (e.g., evening or weekends as opposed to midnight) to educate and address the concerns from Cupertino residents on this issue, and make concerned residents part of the decision process since any decision would greatly impact their lives in many years to come.

From: stacy wilson [mailto:[redacted]]
Sent: Monday, October 19, 2015 5:12 PM
To: City Council
Subject: please look over these comments from Cupertino residents about rezoning of Vallco

Dear Mayor Sinks and other City Council members, I thought that you should see some of the discussion that has been going on in our community about the potential rezoning of Vallco to accommodate a developer's wishes. There are other NextDoor threads discussing this issue. I appreciate the time you will take to look through this (which was copied from Nextdoor.com), and I hope some of the sentiment will be presented in a balanced discussion of the issue tomorrow night. As you read, I believe you will see that many citizens have lost faith in your willingness to represent us, but you can change that by taking the concerns seriously and making a determined effort to work with the community you represent.

Please note that this poll collected over 330 votes and the clear majority do not want Vallco rezoned at all.

Stacy Wilson voter, long-time resident of Rancho Rinconada, Cupertino

Shared with Rancho Rinconada + 14 nearby neighborhoods in General
Thank 34 Reply 432

Vivek, Chris, Carrie, and 31 others thanked Eric

From: Atul Tulshibagwale <[redacted]>
Date: Oct 20, 2015, at 9:31 AM
Subject: Vallco shopping center development suggestion
To: Rod Sinks <[redacted]>

Hello Mayor Sinks,

I'm simultaneously excited and concerned about the new proposed development at Vallco site. Most of the criticism to the plan seems to be coming from the reputation of the builder and whether the builder will actually deliver on what they're promising. I have a suggestion about this:

Since the green roof of the proposed construction is so important to the citizens and possibly not so important to the builder, to avoid the possibility of the builder not delivering on it, is it possible to ask the builder to submit a bond that will be released only when the green roof is fully constructed?

Thanks,
Atul Tulshibagwale
Seven Springs, Cupertino resident.

> From: Rod Sinks <[redacted]>
> Date: Tue, Oct 20, 2015 at 10:10 AM
> Subject: Re: Vallco shopping center development suggestion
> To: Atul Tulshibagwale <[redacted]>
> Cc: "<rsinks@cupertino.org>" <rsinks@cupertino.org>
>
> Hi Atul,
>
> Your idea is certainly worth considering and will pass it in to Staff.
>
> There are various ways we can use to ensure we get project elements that have high value to the community. For example, at Main Street, our entitlement terms dictate that most of the retail be built before the office can be occupied, and we limited the period of the entitlement to a fairly short window to avoid a half-built project.
>
> I have no doubt that if the City of Sunnyvale could wind back the clock on their entitlement of downtown Sunnyvale, they would have put in some means to prevent or at least abbreviate the legal lockup that went on for years. The problem started when the financing dropped out during the 2008 financial crisis, which of course stalled many projects worldwide, but downtown Sunnyvale could have been resolved much sooner with a better agreement.
>
> Rod Sinks
>
> Sent from my iPhone

From: Eric Ho [mailto:[redacted]]
Sent: Friday, October 23, 2015 11:44 AM
To: City of Cupertino Planning Dept.
Subject: Please reconsider rezoning Vallco Hills for office

Dear Council members and Staff,

I'm writing to petition to delay the re-zoning of Vallco Hills for office and residence.
I petition on the delay until we have a firmer picture on how additional traffic will impact the city once Apple Campus 2 and Main Street come on line.

Sand Hill is proposing a big chunk of space to offices. The additional employees will add even more traffic to our already congested roads.

In addition, the additional office space means that we will be forced to build more high rise housing in the city in the future, per ABAG rules. This in turn will negatively impact our schools. And a whole chain reactions will follow from that..

It would be much better to allocate more space for retail, at least as much space, if not more, as Santana Row / ValleyFair. This is because a thriving retail needs to have a certain size geographically for it to thrive. Case in point, witness downtown Sunnyvale. It is now pretty dead on a typical Sat afternoon.

<eric>

From: Victoria [mailto:[redacted]]
Sent: Saturday, October 24, 2015 2:37 PM
To: Karen B. Guerin; Savita Vaidhyanathan; Gilbert Wong; Darcy Paul; Barry Chang; Rod Sinks; City of Cupertino Planning Dept.; City Council
Subject: Regarding Rezoning of Vallco (November 10th meeting)

Please include my letter among the public records regarding the Vallco development project.

I am NOT in support of rezoning Vallco into a mixed use site. As a resident of the eastern part of Cupertino, we will be impacted directly from the traffic, overpopulation in schools and parks. I am frankly disappointed and angry that the city council (or majority of) seem to be only concerned with benefiting the developers instead of the city's residents. We want a shopping area, not the massive amount of office space and apartment housing that Sand Hill is trying to hide in its ad slicks.

We want the city council to be realistic and sensitive to the fact that we have no space for so many additional students in our schools, which is by the way, the reason why we poured our life savings into buying a home in this city...for its top notch schools. We also don't want to sit in traffic on city streets for over 15-20 minutes. Our roads and freeway entrances are not meant for this big of an influx of residents and workers! A shuttle and a "new school" on an existing campus does NOT help alleviate all the problems that this push to over build Cupertino will create. Many residents that I have spoken with are very aware of what is being shoved down our throats and we don't plan on sitting idly by while our city is destroyed. Please see that what is proposed and what the council is trying to sneak into our city is not beneficial in the long run.

Victoria Lau
Cupertino Resident

Sent from my iPhone

From: judy wang [mailto[redacted]]
Sent: Saturday, October 24, 2015 3:06 PM
To: City of Cupertino Planning Dept.
Subject: One more comment about Vallco

Dear Planning Chairman:

I would like to add to the wonderful design of the new Vallco with so much green space which also include community garden (vineyards and an horticulture). It is sure to be another award winning design.

I suppose however people can have more access too. Is it possible to move the street bike lanes and some of the pedestrian sidewalk to be diverted to a more safe route inside this green walkway?

Buses, cars, and perhaps other transport vehicles (future rails) could have a more "adult", passenger oriented walkway; not for elder movement, handicapped or children running around. I suppose it does not look safe to have a mix of bikes, walking pedestrians and cars using the same road.

Perhaps it is the current partition of the public transportation authority, but schools, parents, and children might be concerned about quite a few safety issues.

Cordially yours,

Judy.

From: Robbie Mister [mailto:[redacted]]
Sent: Saturday, October 24, 2015 4:57 PM
To: City of Cupertino Planning Dept.
Subject: Comment on The Hills at Vallco

We strongly object the Hills at Vallco. There's no way Cupertino can accommodate so many more residents. The traffic is already at its limit on 280 and 85. Schools are full.

From: fan jiao [mailto[redacted]]
Sent: Saturday, October 24, 2015 7:00 PM
To: City of Cupertino Planning Dept.
Subject: env review of Vallco project

Hello,

We visit Vallco almost every weekend. The main concern is still the traffic. The city should take an overall review with this new traffic pattern together with that of Apple new campus.

--
Cheers,

Fan

From: Alison Mathias [mailto:[redacted]]
Sent: Saturday, October 24, 2015 8:51 PM
To: City of Cupertino Planning Dept.
Subject: Cupertino: The Hills at Vallco

You have received this link to the Cupertino from:
Alison Mathias [redacted]>

http://www.cupertino.org/index.aspx?page=1365

Dear Sirs,

We have been so proud of the Cupertino Culture. A space for two mice and we are going to put 20 mice. Over-development, what do you mean "Environmental Impact"? Please let Cupertino be Cupertino. Just like Yosemite be Yosemite. There are so many other spaces in a short driving distance, they can develop and easily keep an environmental balance. And we can go appreciating the HUGE project at weekends. We do not want to be bought out.
Sincerely,

Alison Mathias

Alison Mathias

From: susan jaybes [mailto[redacted]]
Sent: Sunday, October 25, 2015 9:52 AM
To: City of Cupertino Planning Dept.
Subject: The Hills at Vallco

To the Department of Community Development of Cupertino:

I submit my general concerns regarding the proposed development at The Hills at Vallco. While I find the proposed area to contain much green space, which will offer a peaceful and serene setting for work and life from within the development, outside of the development the traffic and congestion will be just the opposite. Like others living in Cupertino and the Bay Area, the increase and abundance of economic development in the area has provided opportunities but also poses great strains on traffic and congestion and therefore quality of life. Within The Hills at Vallco, it seems all well and good, but there is a responsibility to others in the area shouldering the burden of the development. The current and future green-lit projects will further stress the area's traffic to greater degrees than it already is today - I ask that you seriously consider this in your planning approval process. Many residents feel that the intense development of Silicon Valley must stop at some point, or at some point, governmental bodies must step forward to provide alternatives to some of these issues that we face today - namely housing prices as well as traffic. The time is now.

The developers stand to profit handsomely from this endeavor, but it will be the people who already live and work in Cupertino and surrounding areas who will feel the burden and a decrease in quality of life. Please urge for an extremely scaled down version of the residential and extensive office development for The Hills at Vallco or reconsider the project altogether.

Respectfully submitted,
Susan Jaynes

From: Prakash Sripathy [mailto:[redacted]
Sent: Sunday, October 25, 2015 8:16 PM
To: City of Cupertino Planning Dept.
Subject: The Hills @ Vallco...

Mayor. Vice Mayor and Council members,

It has been heartening to see mindless initiatives being pushed forward time and again in our city with no end to it. I am not sure how many of you live in Cupertino city and have children still attending Cupertino schools. Perhaps not.

Main Street and Apple campus are not up, but we could already see downsides of all new apartments and condo developments around valco mall neighborhood. The traffic is a mess and so is environmental pollution. You could name any street, be it weekend or weekday, it is extremely scary to walk or bike in the street unless you are living in home confinement. Parents are increasingly worried with their children biking to school, so am I. Our work and commute time to home has already gone up by 30%. We as a community are opposed to bringing in any more housing development in this neighborhood and rezoning. Is the council listening to the community or business? Our over crowded high schools are becoming sub standard fitting within lower band in the nation though we claim ours as best in state. Our students are constrained on what classes to choose because of size of the student population. We hear that the promoter of Hills is naive enough to propose another elementary school next to Collins. Why are they not proposing a school in the Hills development if they care for the community? Having a park on the roof top is just a mere joke to keep the neighborhood green.

I would propose that we take this up in next general election as a measure. This project is not super critical and it could wait until next year. i am pretty sure this project doesn't have legs to pass.

Please save our community, you could do it. Together, we will rebuild green and great Cupertino that it used to be.

Thanks,
Prakash

From: Sanjay Gupta K [mailto:[redacted]
Sent: Wednesday, October 28, 2015 10:54 PM
To: City of Cupertino Planning Dept.
Subject: STOP Hills at Valco
Importance: High

I OPPOSE the HILLS at Valco. I have spoken to many residents around me and they are all alarmed at this development.

The traffic situation on 85 and 280 freeways has become really bad. In addition, main Cupertino streets such as De Anza Blvd & Stevens Creek Blvd is become very bad.

I am getting so many mails about redevelopments in Cupertino. The rampant development in the city of Cupertino MUST stop. Our quality of life in this city is degrading.

With Apple mega-campus not yet even complete, there is only so much development this city can take. Please stop this.

Sanjay Gupta

_____

[redacted]

From: Wilson [mailto:[redacted]]
Sent: Wednesday, October 28, 2015 9:14 PM
To: rmoulds@shpco.com; dyoung@irvinecompany.com; cmarsh@irvinecompany.com; applecampus2@apple.com; David Stillman; SAbbas@sunnyvale.ca.gov; colin@bikesiliconvalley.org; mark@bikewalk.org; perry.woodward@ci.gilroy.ca.us; board.secretary@vta.org; paula.bawer@dot.gov
Cc: Tiffany Brown; Piu Ghosh; ken.alex@gov.ca.gov; City of Cupertino Planning Dept.; Reed Moulds; commute@apple.com; Mark.Rosekind@dot.gov; Community.Outreach@vta.org; info@walkfriendly.org; prevent@preventioninstitute.org
Subject: Prioritizing Pedestrian, Bicycle and Public Transit Access in Cupertino, CA

Reed Moulds
Managing Director
Sand Hill Property Company, Vallco

Daniel Young
Community Development
Irvine Company, The Hamptons

Chris Marsh
Apartment Development
Irvine Company, The Hamptons

Edith Sandoval
Project Coordinator
Apple Inc., Apple Campus 2

Tiffany Brown
Piu Ghosh
Project Managers
City of Cupertino

David Stillman
Senior Civil Engineer
City of Cupertino

Shahid Abbas,
Traffic and Transportation Manager
City of Sunnyvale

Colin Heyne
Deputy Director
Silicon Valley Bike Coalition

Mark Plotz
Program Manager

The National Center for Bicycling & Walking

Perry Woodward
Office of the Board Secretary
Santa Clara Valley Transportation Authority

Alex Ken
Director
Governor's Office of Planning and Research

Paula Bawer
Program Manager
National Highway Traffic Safety Administration

Dear All,

My family has lived in Cupertino for the past 15 years and we are excited for the billion dollar developments being planned, particularly the Apple Campus 2, The Hills at Vallco and The Hamptons apartments. Interestingly, these three projects have in common a close proximity to N Wolfe Road and the ramp exit to Interstate 280. Hence, a coordinated effort by all involved to minimize traffic congestion and ensure the safety of pedestrians and bicyclists is crucial. [please see “3 projects on Wolfe.jpg” and “280 entrance.png” below]

http://thehillsatvallco.com
http://www.hamptonscupertino.com

To that end, it is commendable that both The Hills and The Hamptons will offer additional residential units, which is critical in establishing a city where people can live in close proximity to their workplace, thus minimizing vehicle traffic. Integrating housing with business development is smart design, and it will ensure that Cupertino remains a community rather than a business park filled with parking lots. More diverse housing options are clearly needed, and home ownership increased, to create a stable community.

But in order to really integrate large development projects into the neighborhoods nearby, pedestrian and bicycle paths need to be widely and safely available.

As you may be aware, a large number of people who live and work in Cupertino walk or use bicycles. Apple’s bicycle sharing program alone means that thousands of employees are cycling on the roads, and with the construction of Apple 2, thousands more will be added. The area around Apple’s campus 1 near N De Anza Blvd is often filled with pedestrian and bicycle traffic, including children on their way to and from school.

https://www.apple.com/environment/pdf/Apple_Facilities_Report_2013.pdf
http://www.bizjournals.com/sanjose/news/2013/06/05/cost-of-getting-apple-employees-out-of.html

Ensuring that sidewalks and bike paths are part of all neighborhoods in Cupertino must, therefore,

be a top priority.

There should be sidewalks and bike lanes on both sides of N. Wolfe Road so that employees and residents from the surrounding neighborhoods can walk or bike to The Hills at Vallco and nearby businesses for dining, shopping or entertainment. Not including safe pedestrian and bike paths will necessarily mean more car traffic and will cause a segmentation of Cupertino that is not conducive to community living. We hope that installing sidewalks and bike lanes on N. Wolfe Road can be done without building an unsightly and massive highway that would discourage people – be it an elderly couple, a mother with a stroller, a child with a dog, a person in a wheelchair – from using N Wolfe Rd without a car. For this reason, keeping N Wolfe Rd close to the existing size would be ideal. Hopefully the addition of public transportation by VTA in the form of more frequent buses and shuttles will also aid in keeping N Wolfe Rd close to its existing size and 280 less congested. Perhaps just the addition of a crosswalk button and lights that allow pedestrians to cross the entrance to 280 safely, as well as better marked bike lanes, will be enough. [please see “280 cross.jpg” below]

In addition to ensuring that pedestrians and bicyclists can access The Hills at Vallco and beyond via N. Wolfe Rd, another path should be created for non-car traffic by opening the wall along Perimeter Rd. and Amherst Dr. to allow people on foot or on bicycles from nearby neighborhoods to safely reach the Vallco shopping area. [please see “Amherst Dr wall.jpg” “Perimeter & Amherst Dr.png” and "Amherst & Perimeter Rd.png” below]

A great model for this is the discrete opening along the wall at the east end of Greenleaf Dr. that separates residences from Bandley Dr. and Mariani Avenue, where many businesses, including Apple offices, schools, bus stops and restaurants are located. Because of this wall opening, many students and employees can access these areas safely, quickly and without a car, while blocking car traffic preserves the peace and tranquility of the residential areas. [please see “Greenleaf & Mariani & Bandley.jpg” and “Greenleaf & Bandley Dr.png” below]

Literally connecting all new construction projects to existing neighborhoods via sidewalks and bike paths will make Cupertino more environmentally friendly, more cohesive and safer. Not only because the infrastructure will be there to discourage single occupancy car traffic that creates congestion and isolation, but because a real community will be formed by allowing people to meet their neighbors on the sidewalk, to do their shopping on foot, to exercise outdoors, to walk to restaurants or entertainment, to walk or bike to work or bus terminals, and to form a human presence on the street that discourages burglaries and robberies.

A walkable, bike friendly and interconnected Cupertino will promote a "small town feel" that increases quality of life and well being for all. Currently many streets do not have sidewalks or marked bike paths. Please invest in building and maintaining these vital resources, which are made even more essential by new construction projects.

http://preventioninstitute.org/component/jlibrary/article/id-345/127.html

Thank you very much for your time and consideration.

Sincerely,

Dr. and Mrs. Wilson
Cupertino, CA

<3 projects on Wolfe.jpeg>
<280 entrance.png>
<280 cross.jpeg>
<Amherst Dr wall.jpeg>
<Perimeter & Amherst Dr.png>
<Amherst & Perimeter Rd.png>
<Greenleaf & Mariani & Bandley.jpeg>
<Greenleaf & Bandley Dr.png>

<280 entrance.png><3 projects on Wolfe.jpeg><Amherst Dr wall.jpeg><280 cross.jpeg><Amherst & Perimeter Rd.png><Perimeter & Amherst Dr.png><Greenleaf & Bandley Dr.png><Greenleaf & Mariani & Bandley.jpeg><Walkability.Final.2.pdf>

On Oct 29, 2015, at 4:32 PM, GEOFFREY PAULSEN [redacted] > wrote:

Dear Dr. & Mrs. Wilson.

Thank you very much for your thoughtful email regarding bike access to Vallco.

From: Wilson [mailto:[redacted]]
Sent: Tuesday, November 03, 2015 10:10 PM
To: GEOFFREY PAULSEN
Cc: [redacted]; Cupertino Recreation and Community Services; City of Cupertino Planning Dept.; David Stillman; [redacted]; barry@railstotrails.org; [redacted]; Piu Ghosh; Tiffany Brown; rmoulds@shpco.com; dyoung@irvinecompany.com; commute@apple.com; general.manager@CupertinoHilton.com; Melissa.vela@marriott.com; Customer.care@Marriott.com; Barry Chang; Rod Sinks; Board.Secretary@vta.org; so.website@sheriff.sccgov.org
Subject: Re: Prioritizing Pedestrian, Bicycle and Public Transit Access in Cupertino, CA

Dear Mr. Paulsen,

Thank you for your very informative reply. We certainly support and thank you for your efforts to increase bicycle and pedestrian access throughout Cupertino, and are saddened to learn that there has been opposition to this worthy endeavor. However, because increasing bikeways and walkways is clearly in the best interest for the future of Cupertino, the current Bicycle Plan must be amended regardless of the opposition for the following reasons:

1) Openings around Vallco's perimeter wall would mainly be used by residents of Cupertino, since "out-of-towners" would most likely drive or use public transportation from nearby cities. Hence, the wall openings are for the benefit of our neighbors. They allow all residents the opportunity to reach major shopping and restaurant areas in three different forms of transportation. But without the openings around Vallco's perimeter wall, some residents are forced to take much longer and inconvenient paths, which are deterrents, or use cars, which add pollution and congestion to our streets. Clearly many more residents lose out without the perimeter wall openings, which means that the City of Cupertino loses out since someone in a car may easily travel outside the City to other shopping and dining destinations.

2) Foot and bicycle pathways allow community members to become the "eyes and ears" of the City, which helps with crime prevention: "Paths intended for day and evening use are more secure if located near residences, which provide passive surveillance" [please see the attached document "nmtguide.doc"]. "People using a designated space for a legitimate activity (ie: pedestrians in a neighborhood, people in a park, etc.) These people offer natural surveillance, which increases the likelihood that criminal activity will be observed. Criminals are more likely to commit their crimes in an environment where they can get away with it unobserved" [please see the
website: http://www.muni.org/Departments/police/ComAffairs/Pages/cpted.aspx]. If residents near the wall are concerned about crime, a security guard that monitors the wall could be added.

3) Cupertino is on its way to becoming a world-class city and a major tourist attraction because it is at the heart of Silicon Valley, which serves as a beacon for people worldwide interested in advanced technology that brings wealth and prosperity to many. Walking and biking tours can become part of the City's growing economy if the infrastructure is put in place. Moreover, the "promenade," where large numbers of people can walk and shop leisurely, is a standard architectural feature in destination cities like Vienna (http://youtu.be/NsvFt5ZTYXI) and Paris (http://youtu.be/csJupEA1lCI). All roads, from small alleys to major roads, lead to these large pedestrian zones. The area around Vallco and "Main Street" is capable of becoming Cupertino's promenade. In fact, the existing perimeter wall likely is a contributing factor in Vallco's decline, since it boxes out casual shoppers and impedes the "window shopping" experience that leads to purchases. The wall effectively makes the mall disappear, which certainly contributes to its inability to draw in the number of shoppers needed to make it viable for popular retailers like Apple to open stores there. To ensure a natural flow that can help new ventures succeed, it is of utmost importance that bikeways and walkways reach major shopping areas like these, which will also minimize the intrusion of cars and the dangers that they pose. If residents near the perimeter wall are concerned about people driving to their neighborhoods to park close to the mall and then use the wall opening, then the car entrances to Vallco need to be more attractive to drivers than side streets near the mall by making sure that there are enough parking spaces easily available at the mall.

4) Having the openings around the perimeter wall allows people on foot or on bikes to be on quieter, safer, streets, rather than being forced to share one major road with all vehicles. This will decrease the probability of fatalities due to motor vehicle collisions. Again, for the physical safety and wellbeing of the majority of the residents of Cupertino, the perimeter wall should be opened to pedestrian and bicycle traffic.

5) The segmentation of Cupertino by blocking residents from reaching central zones on foot or on bike is an impediment to community development. Encouraging residents to do their shoppings and dining on foot or on a bike is not only healthier to their physical wellbeing and that of the environment, but also for the wellbeing of the community, because it allows neighbors the chance to meet each other on the street and form a “small town” community within a large, prosperous and cosmopolitan city. In other words, this type of infrastructure is capable of promoting better physical, environmental and mental health, which is the responsibility of government to support. Moreover, all outdoor commercial areas, particularly those that encompass residences and restaurants, should be smoke free zones. We also urge you to create an anti-smoking ordinance like California Labor Code 6404.5 in Cupertino:
http://www.lafd.org/smoking-ordinance

Lastly, regarding pedestrian and bike access on N Wolfe Rd that reaches the Vallco area and crosses the exit to 280, we would like to advocate for our neighbors at the Hamptons apartments, the Arioso Apartments, the residential area bounded by Heron Avenue and Linnet Lane, the residential area along Homestead Rd, as well as the visitors that stay at the Hilton Garden Inn and the Marriott Courtyard Hotel. All the people geographically represented here deserve walkways and pathways to major shopping and dining areas like Vallco and Main Street that are safe and inviting, which may be easily accomplished by adding a crosswalk button and lights to the exit to 280 on N Wolfe Rd. Similar crosswalks exist on N De Anza Blvd and 280 near the Apple Campus 1 , which makes walking and biking around this area possible [please see “crosswalk 280.jpg” and "crosswalk 280 DA.jpg" below]. Currently around N Wolfe Rd and the 280 exit, it is very intimidating and dangerous to cross traffic. Fixing this for residents as well as visitors and employees working at or near the Apple Campus 2 will lead to a walkable and bike-able Cupertino that encourages community and commerce.

In sum, the neighborly thing to do, the safer thing to do, and the best investment in Cupertino’s future is to make pedestrian and bicycle access widely available. To not do so because a small group of residents oppose change in any form is not reasonable. Balancing any opposition against the clear benefits of increased walkway and bikeway connectivity makes it obvious that acquiescing to nondescript fears will have a negative impact on Cupertino’s future and all of its residents. With smart planning the changes that must come in order to accommodate growth will be positive for Cupertino. It would be irresponsible to ignore the reality that Cupertino is at the nexus of a booming global industry. Business grows here and that is why so many want to live here. The City of Cupertino does not have the option to ignore its

new role on the world stage. However, in order to maintain a high quality of life for its residents, Cupertino needs to invest in walkways and bikeways urgently.

The research is in and cities like New York, Boulder and Portland that have incorporated walkable neighborhoods have seen tremendous benefits [please see the links below]. Simply put, walkable cities increase the well-being of residents. Cupertino must not delay in implementing the best practices, particularly at this exciting time when decisions will shape the future of the City.

Janette Sadik-Khan, Commissioner New York City Department of Transportation:
https://youtu.be/diVUmYc2ZWo

Jeff Speck, City Planner, Walkability:
https://youtu.be/uEkgM9P2C5U

Kent Larson, MIT Media Lab:
https://youtu.be/yKCJ2qzYEtI

Attractive City:
https://youtu.be/Hy4QjmKzF1c

Thank you once again or your time and consideration.

Best wishes,

Dr. and Mrs. Wilson
Cupertino, CA

DO NOT ENTER
WRONG WAY
Existing crosswalks
N De Anza Blvd and 280
N De Anza Blvd

From: Shaupoh Wang [mailto:[redacted]]
Sent: Friday, October 30, 2015 3:45 PM
To: City of Cupertino Planning Dept.
Subject: No to Hills at Vallco

Hi,

I am strongly against the Vallco project proposed by Sand Hill Property for two reasons:
(1) The area simply does not have the traffic system to handle the traffic of 650,000 square feet of shops, 800 apartments and 2 million square feet of office, in addition to the new 3.5 million square feet office of Apple HQ. Running bus is no solution, for few people will take it.
(2) Sand Hill Property does not have the successful track record of managing large and complicated development project. The company over promised in the main-street project and fell short of delivering the sport club and senior housing as promised. More significantly, the company defaulted in a 100-million loan in 2009.

Regards,
Shaupoh Wang

From: Jing Lin [mailto:[redacted]]
Sent: Saturday, October 31, 2015 9:24 PM
To: City of Cupertino Planning Dept.
Subject: comments for Environmental Impact Report for The Hills at Vallco

Hi,

I lived in Cupertino and am very concerned about the future increase of needed school capacity. Please include this in the impact report.

Thanks

From: The Yuens [mailto:[redacted]]
Sent: Saturday, October 31, 2015 2:48 PM
To: City of Cupertino Planning Dept.
Subject: Vallco Project

I am concerned about the parking plans for the new Vallco project.
The project will conform to what the city requires. I would like to see parking spaces large enough for the many minivans in Cupertino. Many of the parking spaces in the city are too small for me to maneuver out of...for example, the parking behind Panera and Peet's the lane is so narrow that I hate to go to these venues. I hope the city will "require" larger parking spaces for my minivan.

There have not been enough spaces for the retail areas - Panera, Marukai, Trader Joe's, all of the parking areas in Cupertino have been too small. I believe that the proposed project will have 9000 parking spaces. This is the same number as Valley Fair. Valley Fair does not have any office space, hotel, or residential spaces. The office space will have regular employees. There is not any close alternatives for any overflow parking. I am concerned about having adequate parking. I understand that the residential spaces will have their own parking. I understand that in the past the city had considered only 1.5 parking spaces per unit. This equation would mean that for 6 units, there would only be 9 parking spaces. This seems woefully inadequate if the residences are designed for families. You would probably have 12 cars fighting for the 9 spaces.....or for the 800 units, 1200 spaces for the probably 1600 cars so those extra 400 cars and any guests will be using other parking spaces.

Thank you for your consideration and your effort to make Cupertino a wonderful livable community.
Warm Regards,
Ione Yuen

From: Kent Vincent [mailto:[redacted]]
Sent: Monday, November 02, 2015 10:57 AM
To: Rod Sinks; Barry Chang; wong@cupertino.org; Savita Vaidhyanathan; Darcy Paul; City of Cupertino Planning Dept.
Subject: THE NUMBERS: WHY THE COUNCIL MUST VOTE NO ON THE HILLS AT VALLCO

THE NUMBERS: WHY THE COUNCIL MUST VOTE NO ON THE HILLS AT VALLCO

Dear Councilmember,

This letter is to present the Council with compelling traffic and greenhouse gas impact numbers, CEQA job-housing imbalance lawsuit exposure and significant revitalization failure risks that demand the Council disapprove rezoning Vallco for the proposed Hills at Vallco office build; and place a moratorium on all rezoning within the city that increases office space.

The 2M sf of office build proposed for The Hills at Vallco will increase the total number of employees who work in Cupertino and commute from other cities to over 47,000, nearly doubling the population of Cupertino every work day and making Cupertino's growth imbalance one of the primary causes of traffic congestion, transportation infrastructure cost and air pollution in the Bay Area. The exhaust from these commuter's vehicles alone will produce 700 tons of CO_2 greenhouse gas daily. 20,000 new commute vehicles will converge on Wolfe Rd. from Apple Campus 2 and the Hills at Vallco office space, alone. The Hwy 280 interchange at Wolfe even when doubled in ramp lanes will only be capable of handling 1400 to 3600 of these vehicles per hour during commute hours, meaning the vast majority of the new commute traffic will be directed into the neighborhoods of Cupertino and Sunnyvale. The severe nature of this is owing to the unnecessary office build at the Hills at Vallco. Adjusting the General Plan to accommodate the Hills office build and its 10,000 new office jobs without a counter-balancing increase in housing exposes Cupertino to the same court mandated job-housing balance imposed on the City of San Jose's General Plan Amendment this year, where the court mandated one home for each office space job created. Given the enormous office build at Apple Campus 2, any mixed use revitalization of Vallco should be retail-residential only not retail-office and be incented to housing Cupertino-based employees, particularly at Apple Campus 2, to reduce traffic congestion in the city. I am proposing a method to accomplish this.

TRAFFIC NUMBERS – IMPACT OF 2M SF OF OFFICE SPACE

The proposed Empire State Building equivalent OFFICE SPACE FOR THE HILLS AT VALLCO WILL LIKELY ADD 10,000 OR MORE COMMUTE VEHICLES TO WOLFE RD. This is based on the Silicon Valley standard 200 sf (square feet) and one commute vehicle per employee. The Empire State Building (2.1M sf) is the second largest office building in the U.S. following the Pentagon. It houses 1000 businesses collectively employing 23,000 workers[1].

To visualize the traffic impact, note that 10,000 commute vehicles parked in two lanes of Hwy 280 with 5 feet gridlock spacing extends 20 miles on its own (one car each lane every 21 feet), the distance between Wolfe Rd. and Crystal Springs Reservoir. Add another 10,000 commute vehicles from the adjacent new Apple Campus 2 and the two-lane congestion doubles to 40 miles, the

distance from Wolfe Rd. to San Francisco. THIS 40 MILES IN TWO LANES OF NEW COMMUTER VEHICLES WILL ENTER AND DEPART THE CITY OF CUPERTINO AT WOLFE RD. DURING COMMUTE HOURS EVERY WORK DAY, ABHORRENTLY ADDING TO THE TRAFFIC CONGESTION THAT ALREADY EXISTS.

The Hwy 280 interchange at Wolfe Rd. is woefully incapable of handling the added commuters, even if onramps are doubled from one to two lanes. The State of California sets its metering lights to allow 350-900 vehicles per hour to enter a freeway per onramp lane[2]. The rate depends on freeway traffic congestion. Assuming the state expands the onramps in each direction to two lanes, the Wolfe Rd. interchange will only be capable of releasing 1400 to 3600 vehicles per hour onto Hwy 280 when metering lights are on. Apple Campus 2 will need all of this to handle its 10,000 vehicles over the 4 – 7 pm commute period, excluding all other existing traffic and eventual new traffic from Main Street and Vallco retail. ADDING 10,000 COMMUTE VEHICLES FROM THE PROPOSED HILLS AT VALLCO OFFICE SPACE WILL REQUIRE 5.5 – 14 HOURS TO VACATE THE PARKING LOTS OF JUST THE APPLE CAMPUS 2 AND HILLS AT VALLCO OFFICES ONTO THE FREEWAY ALONE DEPENDING ON METERING. Obviously, this isn't going to happen. THE BULK OF THE 40 MILES OF TWO-LANE NEW COMMUTE VEHICLES WILL BE DISTRIBUTED THROUGH THE STREETS OF CUPERTINO AND SUNNYVALE, CONSUMING AND GRIDLOCKING EVERY NEIGHBORHOOD THROUGHWAY AS COMMUTERS SEEK FASTEST COMMUTE ROUTES. The increased congestion on Stevens Creek Blvd., De Anza Blvd. and Homestead Rd. in concert with the doubling of traffic flow entering the 280 onramp lanes at Wolfe Rd. will certainly back southbound Hwy 280 traffic from the current backup point near the Hwy 85 interchange into Los Altos Hills on the southbound home commute. THIS WILL MAKE FOOTHILL EXPRESSWAY THE NEW LOGICAL FIRST FREEWAY RELIEF POINT OFF-RAMP FOR SARATOGA, LOS GATOS AND CAMPBELL COMMUTERS, as the currently free right-hand exit-only lane leading to De Anza Blvd on 280, will be fully immersed in the extended 280 congestion zone. THIS WILL CONGEST FOR THE FIRST TIME STEVENS CANYON RD. AND THROUGH STREETS SUCH AS MCCLELLAN RD, BUBB RD., LINDA VISTA DR., HYANNISPORT DR., SANTA TERESA AVE, WILKENSON AVE, COLUMBUS AVE, TERRACE DR., REGNART RD., MONROVIA AND BYRNE AVE IN THE WEST OF BUBB NEIGHBORHOOD.

MASS TRANSIT – NOT A MITIGATING FACTOR

The fully decentralized, fully suburban and vast area in which Silicon Valley homes and workplaces are located make mass transit a non-factor in fighting traffic congestion. THE SOUTH BAY'S LIGHT RAIL AND BUS MASS TRANSIT SYSTEMS OPERATE VIRTUALLY EMPTY BECAUSE THEY PROVIDE NO FIRST MILE / LAST MILE COMMUTE SOLUTION FOR THE VAST MAJORITY OF COMMUTERS. It is inconceivable that such a system could have stops within three blocks of both homes and workplaces for enough commuters to have a measureable impact on traffic. Such mass transit is only feasible for highly urbanized cities such as San Francisco. THERE IS NO FEASIBLE MASS TRANSIT ALTERNATIVE TO MITIGATE THE TRAFFIC CONGESTION PRODUCED BY THE PROPOSED OFFICE SPACE BUILD AT THE HILLS AT VALLCO. Sand Hill's mention of shuttles and VTA traffic mitigation is simply placatory for a problem that has not been addressed and is insolvable through mass transit.

ENVIRONMENTAL IMPACT – CEQA AND ABAG EXPOSURE

BY VIRTUALLY ANY STATE OR REGIONAL ENVIRONMENTAL METRIC, THE CITY OF CUPERTINO SHOULD NOT BE AUTHORIZING ANY REZONE TO OFFICE SPACE, NOW OR INTO THE FORESEEABLE

FUTURE. THE COMPLETION OF APPLE'S CAMPUS 2 WILL PUT CUPERTINO'S JOBS-HOUSING RATIO COMPLETELY OUT OF BALANCE. Of the 31,800 people employed in Cupertino only 5100 live here[3], meaning 84% OF CUPERTINO'S WORKFORCE, 26,700 EMPLOYEES, COMMUTE HERE EVERY WORK DAY FROM OTHER CITIES. IN CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) AND ABAG TERMS, CUPERTINO'S GROWTH IMBALANCE IN OFFICE DEVELOPMENT IS A MAJOR CAUSE OF THE COUNTY'S TRAFFIC CONGESTION, TRANSPORTATION INFRASTRUCTURE COSTS AND AIR POLLUTION. With the projected growth of 14,600 Apple employees AT THE COMPLETION OF CAMPUS 2, CUPERTINO JOBS GROWTH WILL SOAR TO NEARLY 46% OVER A 2-3 YEAR PERIOD DURING A PROTRACTED PERIOD WHEN CUPERTINO HOUSING IS GROWING ONLY 1.4% ANNUALLY[3]. Using the same statistics Cupertino-based employees commuting from other cities at that time will reach at least 39,000.

THE PROPOSED OFFICE SPACE AT THE HILLS AT VALLCO IS EQUIVALENT TO NEARLY A QUARTER OF ALL OF THE OFFICE SPACE IN THE ENTIRETY OF DOWNTOWN SAN JOSE[4]. If the 2M sf Hills At Vallco office space is approved and using the 84% statistic, THE NUMBER OF CUPERTINO-BASED EMPLOYEES FROM EXISTING, APPLE CAMPUS 2 AND HILLS AT VALLCO OFFICES COMMUTING FROM OTHER CITIES INTO CUPERTINO EACH WORK DAY WOULD BE EXPECTED TO EXCEED 47,000, A FLAGRANT CEQA AND ABAG IMBALANCE. IF WE PARKED THAT NUMBER OF VEHICLES ON HWY 280 IN TWO LANES, AS IF THOSE COMMUTING FROM OTHER CITIES WERE WAITING AT A GATE TO ENTER CUPERTINO EACH MORNING, THE VEHICLE BACK-UP WOULD EXTEND 94 MILES, THE DISTANCE FROM WOLFE RD. TO ROUGHLY SANTA ROSA! Assuming an average roundtrip commute of 25 miles and a standard 1.22 lbs CO_2 emissions per mile[5], THE TOTAL CO_2 EMISSIONS FROM THOSE CUPERTINO-BASED EMPLOYEES COMMUTING FROM OTHER CITIES WILL BE OVER 700 TONS DAILY, 150 TONS DUE TO THE APPROVAL OF THE HILLS OFFICE SPACE ALONE.

<u>CCEC V. CITY OF SAN JOSE AND ITS GENERAL PLAN – JOBS-HOUSING IMBALANCE LAWSUIT</u>

The City of Cupertino cannot afford to ignore the environmental impact and job-housing imbalance issues incurred in the community and region by its General Plan and its development projects. In April of this year, a CEQA suit by the California Clean Energy Committee against the City of San Jose successfully over-turned its General Plan for failing to address the jobs-housing imbalance of its planned office space development. THE COURT FAULTED SAN JOSE FOR NOT PLANNING ENOUGH HOUSING TO ACCOMMODATE THE JOBS CREATED BY ITS GENERAL PLAN, PUSHING HOUSING AND TRAFFIC INTO OTHER COMMUNITIES TO ACCOMMODATE THOSE JOBS. THE COURT ORDERED SAN JOSE TO INCREASE ITS HOUSING UNIT ALLOCATION BY THE ENTIRE JOBS-HOUSING IMBALANCE SHORTFALL (109,000 HOMES) AND TO PAY THE ENTIRETY OF THE $300,000 SUIT LEGAL COSTS[6,7]. The proposed Hills At Vallco project and accommodating Cupertino General Plan Amendment exposes Cupertino to the same jeopardy. The city of Cupertino, its schools, infrastructure and lack of available land cannot accommodate the housing needed for the jobs that will be created by the Hills at Vallco, let alone Apple Campus 2. Environmental advocacy groups, such as the California Clean Energy Committee, make it their business to discover and force city jobs-housing balance to minimize regional traffic and pollution. It is inconceivable that the highly publicized and massive office build of the Apple Spaceship campus and The Hills At Vallco proposal / General Plan Amendment are not on the radar screen of these advocacy groups.

<u>ENVIRONMENTAL IMPACT – IS CUPERTINO WORKING ON THE WRONG ISSUES?</u>

THE MOST IMPORTANT TRAFFIC MITIGATING ENVIRONMENTAL IMPACT STATISTIC FOR CUPERTINO IS THE PERCENT OF ITS RESIDENTS WHO WORK IN CUPERTINO. If affordable housing and rents were the primary determinants then one would expect a reasonable number of highly paid engineering professionals at Apple to live here, at least rent. The fact is only 10% do, the same as live 40 miles away in San Francisco[8]. Obviously, other factors play an important role for where people hired in Cupertino opt to live.

Cupertino has long been a one-trick pony community that's main attraction is its excellent schools. Outside of the schools, Cupertino has very few standout features and several significant deficits, most importantly no downtown and the total lack of a social environment for the singles and millennials that compose the majority of the Apple and new Silicon Valley workforce. The significant disconnect between the demographics and lifestyle needs of the workforce of Cupertino, its residents and city offerings is certainly a major reason why Cupertino-based employees choose not to live here. VALLCO STANDS AS THE LAST HOPE FOR CUPERTINO TO CORRECT THIS PROBLEM. IDEALLY, THE REVITALIZATION OF VALLCO SHOULD BE CENTERED ON ATTRACTING THE YOUNGER GENERATION OF SINGLES AND MILLENNIALS WHO WORK HERE WITH THE BEST AND MOST ABUNDANT IN VALLEY OFFERING OF TRENDY AND FULLY ONLINE RESTAURANTS, COFFEE SHOPS, NIGHT CLUBS, SOCIAL MEETING POINTS, RETAIL SHOPS AND ENTERTAINMENT WITH COORDINATED URBAN HOUSING DESIGNED SPECIFICALLY FOR AND EQUALLY ATTRACTIVE TO THE TECHNOLOGY, ACTIVITIES AND LIFESTYLES OF THIS GENERATION…THE MOST COVETED PLACE TO LIVE (AND WALK TO WORK) FOR YOUNG APPLE EMPLOYEES. A vibrant retail center such as this would attract a healthy clientele weeklong and over longer hours, attracting also older generations and families who prefer "happening places" for entertainment and shopping as well. SAND HILL'S CURRENT PLAN TO REPLACE THE BULK OF THE RETAIL SPACE AT VALLCO WITH HIGH DENSITY OFFICE SPACE TOTALLY DEFEATS THIS POSSIBILITY AND CEMENTS, PERHAPS FOREVER, CUPERTINO'S INABILITY TO REVITALIZE THE CENTER AND INCREASE THE NUMBER OF ITS RESIDENTS WHO WORK HERE.

RISKS THAT OFFICE BUILD WILL PREVENT REVITALIZATION OF VALLCO

The risk factors against a successful revitalization of Vallco through the proposed Hills at Vallco development are extensive, obvious and underscore Sand Hill's inexperience in building and managing such a project. First, there is HIGH RISK THAT BOTH SHOPPERS AND RETAILERS WILL FIND THE HILLS AT VALLCO UNATTRACTIVE DUE TO VASTLY REDUCED RETAIL EMPHASIS (NO LONGER "DESTINATION RETAIL CENTER"), INCUMBERED ACCESS DUE TO HEAVY TRAFFIC CONGESTION AND EXCESSIVE MIXED USE COMPETITION FOR PARKING. These risks are underscored in the letter sent October 9, 2014 to Paul Brophy, Cupertino Planning Commission, by Sears' attorney Ivor Samson in which Sears analysis of the Hills at Vallco proposal forecast lower Sears revenue due to these factors[9]. Indeed, the proposed Hills retail space (discounting that allocated for concert area, public areas and innovation center) is far less than half of the current Vallco retail, and LESS THAN A QUARTER OF THE RETAIL SPACE OF ITS REGIONAL COMPETITOR AT WESTFIELD VALLEY FAIR[10,11,12]. THE HILLS AT VALLCO IS NOT A 'REVITALIZATION OF VALLCO' AS A RETAIL CENTER BUT A TRANSFORMATION TO AN ENORMOUS OFFICE COMPLEX MATCHING IN OFFICE SPACE THE ENTIRE RETAIL SPACE OF VALLEY FAIR, BOTH 2M SF.

Shared parking is a significant and well documented risk for failure of mixed use developments and the risk at The Hills is particularly onerous. THE 10,000 HILLS OF VALLCO OFFICE WORKER VEHICLES REQUIRE MORE PARKING SPACES THAN THE ENTIRETY OF THE WESTFIELD VALLEY FAIR MALL,

INCLUDING THE NEW FIVE STORY PARKING STRUCTURE CURRENTLY UNDER CONSTRUCTION. THERE IS MAJOR RISK THAT COMPETITION FOR CONVENIENT, QUICKLY FOUND PARKING SPACE WILL DETRIMENTALLY FRUSTRATE THE HILLS AT VALLCO SHOPPERS. Assuredly, many of the retail parking spaces will be more convenient to office workers than the least convenient multi-story office parking spaces, assuming they are separated and designated as such. IT IS INCONCEIVABLE THAT RETAIL SHOPPERS WILL BE GATE-CHECKED OR GIVEN A PASS TO ENTER ANY RETAIL SHOPPING PARKING AREA TO DISTINGUISH THEM FROM OFFICE WORKERS WHO WILL TAKE THE MAJORITY OF HILLS PARKING SPOTS ON WEEKDAYS PRIOR TO THE OPENING OF MOST RETAIL SHOPS. THERE IS SIGNIFICANT RISK, THEREFORE, THAT WEEKDAY SHOPPERS WILL SUFFER CHRISTMAS-LIKE PARKING FRUSTRATION THROUGHOUT THE YEAR AT THE HILLS BECAUSE OF THE CO-EXISTENCE WITH 2M SF OF OFFICE SPACE. THIS ASSUREDLY WILL DECREASE RETAIL TRAFFIC AND POTENTIALLY DOOM THE RETAIL REVITALIZATION OF THE SITE.

Sand Hill Properties has no experience in building or maintaining the environmentally attractive 30 acre green toupee of The Hills at Vallco. Park maintenance will be a very expensive, budget-draining proposition. A small army of full-time gardeners, landscapers, arborists and other specialists must be employed year around to maintain the nearly 23 football fields of meadows, vineyards, orchards, organic gardens, children's play areas, walking and jogging trails promoted by Sand Hill. There is foreseeable risk that crew cutbacks during any challenging economic time would convert this centerpiece of the project to the area's greatest elevated eyesore. There is risk also that office businesses will find it unattractive or unbearable to have office windows that receive no natural sunlight due to the covering. Like the senior housing scenario at Main Street, THERE IS REASONABLE RISK THAT SAND HILL PROPERTIES WILL DISCOVER A NECESSITY TO DROP THE SIGNATURE PARK-LIKE COVERING OF THE HILLS EXPOSING THE UNATTRACTIVE 2M SF OF HIGH DENSITY OFFICE AND ITS PARKING STRUCTURES THAT LIE BENEATH.

A final risk is funding. BANKS CONSIDER MIXED USE DEVELOPMENTS RISKY for all of the reasons stated above. And THIS DEVELOPMENT IS MORE COMPLEX AND RISKY THAN MOST MIXED USE DEVELOPMENTS. When retail, office and residential units go vacant developers have trouble making loan payments. THERE IS REASONABLE RISK THAT SAND HILL PROPERTIES WILL NOT BE ABLE TO SECURE THE ENORMOUS LOAN REQUIRED TO CONSTRUCT THE HILLS AT VALLCO <u>AS PROPOSED</u>, ESPECIALLY GIVEN THE MAJOR ISSUES INTRODUCED BY THE ENORMOUS OFFICE SPACE COMPONENT, TRAFFIC, SHARED PARKING AND CONSEQUENT RETAIL SURVIVAL RISKS.

<u>SAND HILL'S DECEPTIVE MARKETING AND POLLING</u>

Sand Hill Properties has undertaken a significant and highly deceptive marketing campaign aimed at getting the bulk of Cupertino residents to submit written postcard mail-in support for the project. Undoubtedly, a statistic will be presented to the Council by Sand Hill showing vast resident support when the critical vote for rezoning is taken. The problem is that Sand Hill has not disclosed in its very seductive mailers, Hills at Vallco website and town meetings the fact that the bulk of Vallco revitalization, 2M sf, will be office space filled with 10,000 employees who will commute to Cupertino every work day. Such disclosure, of course, would kill the project by triggering a whole set of resident concerns including marginalization of the new shopping center, abhorrent traffic, added housing requirement and their collective impact on schools. Within my network, residents who've discovered the omission are furious over the deception, especially after having given their written

support of the project. Any resident approval statistic submitted by Sand Hill Properties should be dismissed by the Council.

WHY DEVELOPER'S PUSH OFFICE SPACE IN CUPERTINO– CITY OF PALO ALTO MORATORIUM

Why are we seeing so many developer proposals to rezone Cupertino retail to office space (Vallco, The Oaks)? CUPERTINO IS A MAJOR DEVELOPER TARGET IN SANTA CLARA VALLEY FOR CONVERSION DUE TO THE WINDFALL ANOMALY THAT OFFICE LEASE RATES HERE ARE NOW OVER 40% HIGHER THAN RETAIL LEASE RATES AND 40% HIGHER THAN OFFICE, RETAIL AND RESIDENTIAL LEASE RATES IN GENERAL IN SANTA CLARA VALLEY[13]. The current office lease rate in Cupertino is $42.90 /sf/yr and skyrocketing at +24.3% annually, while the lease rate for retail is $30.20/sf/yr and growing at less than half the office rate. The county average lease rate is about $30 /sf/yr for both retail and office space. The applicable square footage is multiplied through multi-story office construction, making it far more profitable than single street level retail. THIS BRINGS SAND HILL PROPERTIES' MULTI-STORY OFFICE CENTRIC 'REVITALIZATION' DESIGN FOR VALLCO, ITS UNADDRESSED TRAFFIC AND ENVIRONMENTAL IMPACT PLANNING, ITS OFFER TO BUILD A FREE-TO-THE-CITY SCHOOL AND INNOVATION CENTER IN EXCHANGE FOR REZONING, IT'S EXPENSIVE AND DECEPTIVE MARKETING AND SURVEY CAMPAIGN INTO TOTAL FOCUS. SAND HILL'S REVENUE FROM JUST OFFICE SPACE LEASING AT THE HILLS ALONE SHOULD EXCEED $100M ANNUALLY, MUCH MORE THAN IF 'REVITALIZED' TO THE INTENDED SHOPPING CENTER. The mission of a company is to be maximally profitable and THE HILLS AT VALLCO IS EXACTLY WHAT ONE MIGHT EXPECT FROM A DEVELOPMENT COMPANY DOING THE DESIGN.

Faced with similar growth and traffic issues and loss of retail space, the City of Palo Alto passed an emergency ordinance in May prohibiting the rezoning of ground-floor retail space into office. The move was made to preserve the City's "slow-growth residential philosophy" and "protect its resident's health, safety and welfare" [14]. A similar philosophy and action is desperately needed in Cupertino.

A BETTER APPROACH TO VALLCO REVITALIZATION

In my opinion, the revitalization of Vallco should include two critical elements: First, an innovative, game change shopping destination sustainably competitive with Valley Fair, other regional successful shopping centers and downtowns; and second, integrated urban residential units designed, structured, regulated and incented to house within easy walking distance or inter-city shuttle the millennial and subsequent generations of Apple and other Cupertino-based employees who work at Campus 2, other Apple and Cupertino employee campuses. This design approach provides several most important city benefits. First, it CREATES THE 'REVITALIZED' VALLCO THAT RESIDENTS DESIRE. Second, it REDUCES COMMUTER TRAFFIC AND CARBON FOOTPRINT within Cupertino and the Bay Area. Third, the residential units and total lack of included office space will REDUCE ABAG, CEQA AND OTHER ENVIRONMENTAL ADVOCY GROUP PRESSURE FOR MORE HOUSING AND ITS CONSEQENT EFFECT ON SCHOOLS AND TRAFFIC. Fifth, regulated to omit children, the residential element will have ZERO IMPACT ON SCHOOLS. Sixth, the high density residential units will provide an ATTRACTIVE PROFIT COMPONENT FOR THE DEVELOPER AND REZONE LEVERAGE FOR THE CITY TO MAKE SURE THE DESIGN IS DONE TO MEET THE NEEDS OF THE CITY AND ITS RESIDENTS.

The retail component should first include favorable numbers, quality and types of shops, including anchor stores like Macy's, and attractive ambience to create a "shopping destination" sustainably competitive to its primary competitor at Valley Fair. For the single and millennial generation, the mix should also include trendy restaurants, best in area sports bars and night clubs with evening bands and entertainment, theatres, sports stores, coffee shops and mobile centric eateries that provide nutritional, good value meals that can be ordered and paid ahead via mobile device by the young "don't-want-to-cook" residents for pick up on the walk home from work. A game change addition would include complete mobile device connection with every shopper, providing such things a locations of available parking, directions from current location to specific shops, shop search for desired retail items, shop information, sales and mobile coupons, mobile food and item ordering, show times and ticket ordering… all available on a center-specific mobile ap that fully enriches the shopping experience. The center should contain Apple's flagship store, due to its next door location to the Apple Spaceship HQ. The mix of extensive retail and urban millennial housing provides a most attractive business environment with far fewer risk factors for attracting and retaining the best and most popular retailers.

The design of the residential component needs to be prioritized on two basic elements: first, its unparalleled appeal to young single and millennial Cupertino-based employees and, second, its full access integration with the retail center. Features should include built-in and upgradable mobile device home functionality, built-in secure Wi-Fi, wall-mounted flat panel TV, gas insert fireplace, in-suite dining and entertainment areas and street level bicycle lockers. Rents for Cupertino-based employees should be discounted and include perks like free or discount gym membership within the center. Some units should be furnished to attract new college hires.

In this scenario, the Apple Spaceship HQ and adjacent revitalized Vallco center will highlight the innovation of Cupertino, both in technology and green growth solutions.

I encourage the City of Cupertino to vote against rezoning Vallco and thereby disapprove of the proposed mixed retail-office Hills at Vallco design. The enormous office component is unnecessary, will only benefit the developer, will force enormous detrimental traffic impact on the city and neighboring communities and expose the City of Cupertino to potential CEQA litigation over gross jobs-housing imbalance. THE COUNCIL SHOULD KEEP IN MIND THAT WHILE AN AVERAGE CUPERTINO RESIDENT MAY BENEFIT FROM THE HILLS AT VALLCO REVITALIZATION TWO OR THREE TIMES PER MONTH ITS OFFICE SPACE WILL SUBJECT EACH RESIDENT TO DEBILITATING TRAFFIC EVERY DAY. An alternative retail-residential mixed use approach as outlined above is far better for Vallco revitalization. It offers far less risky development that lowers traffic congestion and the City's jobs-housing exposure. In short, the City should send Sand Hill Properties back to the drawing board. When you complete reading this letter, I would appreciate your replying to the email (e.g. received, thank you) to let me know that it's been received and read.

Best regards,

Kent Vincent
Cupertino

[1] Wikipedia, Empire State Building
[2] *Ramp Management and Control Handbook*, Federal Highway Administration, US Dept. of

Transportation
[3] Cupertino General Plan Amendment Market Report Feb. 2014
[4] *The Problems with the Hills at Vallco*, San Jose Mercury News Oct. 3, 2015
[5] *Rolling Carbon: Greenhouse Gas Emissions from Commuting in New York City*. Transp. Alternative, Oct. 2008
[6] *San Jose's general plan imperiled by greenhouse gas lawsuit*. Silicon Valley Business Journal, March 24, 2015
[7] *San Jose's Traffic-Intense General Plan Held Unlawful*, California Clean Energy Committee, May 7, 2015
[8] Jason Lungaard, State and Government Affairs, Apple
[9] https://drive.google.com/file/d/0B7RMc9DXGhUAUVhTQ1B1UU9tSVU/view?pli=1
[10] *The Hills at Vallco*, Cupertino.org
[11]Vallco 1.3M sf. The Registry, Bay Area Real Estate, August 27, 2015
[12] Wikipedia, Westfield Valley Fair
[13] LoopNet, Sept. 2015
[14] *Palo Alto passes emergency law to protect ground floor retail*, Silicon Valley Business Journal, May 12, 2

From: Mark Satter [mailto:[redacted]
Sent: Tuesday, November 03, 2015 3:42 PM
To: Rod Sinks
Subject: SMALL BUSINESS OWNERS

Rod G. Sinks
Tel: 408.777.3194
Email: rsinks@cupertino.org

Mr, Rod

I like to bring it to your kind notice that Mr Peter pau the new owner of the mall is creating to many problem.

They want kick us out for no reason, first they say they will pay for relocation and now they are forcing us to close our businesses.

We have been there for almost twenty years we build goodwill and invested around 200K.

Please help us small business owners Vallco Mall

Regards

Moe Satter
[redacted]

From: Liang C [mailto:[redacted]]
Sent: Thursday, November 05, 2015 12:34 AM
To: City Council; City of Cupertino Planning Dept.; David Brandt
Subject: City has Policy Power over Properties - Palo Alto fines Sand Hill $1,000 per day for violation

Dear Mayor Sinks, Vice Mayor Chang and Counncilmembers,

How much right does a city have on private properties?

The city in fact could be quite powerful as long as you are willing to assert your right.

The property owners do not have a right to do whatever they want with their property. That's the basics of Land Use law. The City Council should know that and practice that. The general plan, master plans and specific plans in every city can specify the height, setback, density, even architecture, materials used, what type of retail shops or business in a commercial property, and even what type of occupants in a residential property. **The City has police power on all properties in the city to ensure health, safety and welfare of the City**. For the welfare of the residents, access to affordable retail shops is essential. **Please do not use the property owner's right as an excuse to benefit Sand Hill or any other developer at the expense of health, safety and welfare of the residents.** Please exercise the City's police power to protect the City and the residents.

The City should look into ways to require a minimum percentage of operational retail space for the current or future Vallco or other mixed use projects. Otherwise, a developer who wants to turn any retail space into office could simply intentionally not find a good tenant to rent the space out.

Palo Alto is able to fine Sand Hill $1000 per day just because a store is not occupied by a grocery store, promised as a public benefit.

"The Land Use 101, a field guide" by cacities.org states
"Virtually every reference guide on Municipal Law begins with the premise that **a city has the police power to protect the public health, safety and welfare of its residents**. See Berman v. Parker , (1954) 348 U.S. 26, 32 - 33."

"The ability to enact ordinances to protect the health, safety and welfare is important in the land use context because it confers very broad rights to adopt regulations that implement local land use vision and values,..."

"Land use an d zoning regulations are derivative of a City's general police power... This power allows cities to establish land use and zoning laws which govern the development and use of the community.....The police power is not confined to elimination of filth, stench and unhealthy places. It is ample to lay out zones where family values, youth values, and the blessings of quiet seclusion and clean air make the area a sanctuary for people."

"One seminal land use and zoning case underscoring a city's police power was Wal - Mart Stores Inc. v. The City of Turlock , (2006) 138 Cal. App. 4 th 273, 303 where, in response to concerns over the

impacts of big box stores, particularly Wal - Mart, the City o f Turlock adopted an ordinance prohibiting the development of discount superstores."

"The court found the **police power allows cities to "control and organize development within their boundaries as a means of serving the general welfare**."

This article lists the many violations of Sand Hill just at Main Street alone, which the Planning Department, and thus the City, have chosen to ignore. The city did not exercise your police power. http://bettercupertino.blogspot.com/2015/08/many-voilations-at-main-street-sand-hill.html

Below (end of the email) are some references to Sand Hill's violations in Palo Alto. **Palo Alto is able to fine Sand Hill $1000 per day** just because a store is not occupied by a grocery store, promised as a public benefit.

Sand Hill is now forcing Vallco to become vacant before the Vallco redevelopment project is even approved. This should not be allowed. Vallco mall provides a service to the City, just as the grocery store in Palo Alto provides the service to their community.

Could the City investigate a way to request Sand Hill to keep Vallco operational? At least Sand Hill should not intentionally kill it. The mall provides retail services that's essential to the welfare of the residents. Before the redevelopment project is approved, Sand Hill should be required to keep the mall operational. Or at least 50% of the mall.

If the City couldn't put enforcement according to the current code, the City should look into ways to require a minimum percentage of operational retail space for the future Vallco or other mixed use projects. Otherwise, a developer who wants to turn any retail space into office could simply intentionally not find a good tenant to rent the space out.

In fact, this is the trick the previous Vallco owner and the owners before that have been playing. As long as Vallco doesn't do well, the City would turn Vallco into a more profitable office park. What incentive is there for any mall operator to provide the much needed retail service to Cupertino residents? None.

The property owner doesn't have a right to do whatever they want with their property. That's the basics of Land Use law. The City Council should know that and practice that. The general plan, master plans and specific plans in every city can specify the height, setback, density, even architecture, materials used, what type of retail shops in a commercial property. **The City has police power on all properties in the city to ensure health, safety and welfare of the city**. For the welfare of the residents, access to affordable retail shops is essential. **Please do not use the property owner's right as an excuse to benefit Sand Hill or any other developer at the expense of health, safety and welfare of the residents.** Please exercise the City's police power to protect the City and the residents.

Sand Hill's violations in Palo Alto:

- 2013: knocking down a historic building that they are supposed to preserve:

http://www.mercurynews.com/news/ci_24262337/developer-fined-942k-by-palo-alto (2013-10-08)

    - A developer will have to pay $94,200 for knocking down one of two historic buildings that were supposed to be rehabilitated as part of a project to overhaul Edgewood Plaza in Palo Alto.

- 2015: violation for empty grocery store http://www.paloaltoonline.com/news/2015/10/07/edgewood-plaza-developer-faces-growing-fine-for-grocery-vacancy

- The developer of Edgewood Plaza is now facing a fine of $1,000 per day for not replacing the vacant grocery store formerly occupied by Fresh Market, which departed on March 31.
- In August, the City Council added pressure on Sand Hill Property Company to replace Fresh Market by the end of September **by imposing a fine of $500 per day. That fine increased to $750 on Oct. 1 and $1,000 each day after Oct. 1 until the property is brought into compliance** with an ordinance that requires the continued operation of a grocery store at the once-dilapidated Edgewood Plaza, located at 2080 Channing Ave.
- The grocery store is a key component of a "planned-community" zone change that the city granted to Sand Hill in 2012. The zone change allowed the developer to construct a development that, in addition to the grocery store, includes two commercial buildings and 10 homes.

Sincerely,

Liang Chao

From: Liang C [mailto:[redacted]]
Sent: Thursday, November 05, 2015 12:49 AM
To: City Council; City of Cupertino Planning Dept.; David Brandt
Subject: Re: City has Policy Power over Properties - Palo Alto fines Sand Hill $1,000 per day for violation

Here is the video from last night's oral communication. Please watch it again to remind yourself their testimonies.
https://youtu.be/TF24T7G3jck

These people may not be Cupertino residents, since they cannot afford to buy a house here. They are long-time small business owners of Cupertino. They have paid their business license fees and earned sales taxes for Cupertino in the past 20 to 30 years. They have served Cupertino residents in the past 20 ro 30 years.

Please treat them with the same respect and courtesy that you would for large and wealthy business owners. These small business owners are also stakeholders of Cupertino. Their stake is even bigger since their whole life saving is on the line here.

Please do not let an out-of-town developer who have only profited from Cupertino to drive these people away and walk all over their right and dignity.

Thank you.

Liang

From: Liang C <[redacted]>>
Date: November 10, 2015 at 11:19:33 PM PST
To: Piu Ghosh <PiuG@cupertino.org<mailto:PiuG@cupertino.org>>
Subject: Fwd: City has Policy Power over Properties - Palo Alto fines Sand Hill $1,000 per day for violation
Reply-To: [redacted]>>

Please forward this email to the Vallco EIR consultant team, Sand Hill people and anyone involved with Vallco project.

In the EIR scoping session, one of the consultants said "The property owner has a right to develop their own property." That's wrong. The city has the police power to decide what and how any property owner can develop their property for the public health, safety and welfare.

I hope that the EIR consultant does not make such incorrect statement to mislead the public any more. If the EIR consultant does not know the very basic of land use law 101, they should consultant their land use attorney and get the basic facts straight.

If they disagree, I would appreciate if they can point out any law that state otherwise.

Thanks.
Liang

From: Kent Vincent [mailto:[redacted]]
Sent: Thursday, November 05, 2015 6:55 PM
To: Rod Sinks; Barry Chang; Savita Vaidhyanathan; Darcy Paul; City of Cupertino Planning Dept.; Gilbert Wong
Subject: San Jose's Traffic-Intense General Plan Held Unlawful

Dear Councilmember,

I have forwarded to you on two occasions without response my letter detailing highly compelling reasons why the Hills at Vallco rezone request should be rejected by the Council. Here is one of the reasons: the Cupertino General Plan Amendment is likely unlawful as recently ruled in the case against the City of San Jose.

Kent Vincent
Cupertino

...

San Jose's Traffic-Intense General Plan Held Unlawful

Posted on May 07, 2015

The California Clean Energy Committee has successfully over-turned the City of San Jose General Plan due to the failure to adequately analyze impacts resulting from a lack of housing for people employed in the city. The City's recent update of its general plan would require 109,000 additional housing units to be built elsewhere in the region for employees working in San Jose.

The Association of Bay Area Governments (ABAG) described the effect of that kind of planning in its 2007-2014 Regional Housing Needs Plan—

In the Bay Area, as in many metropolitan areas, cities with employment centers have historically planned for insufficient housing to match job growth. This lack of housing has escalated Bay Area housing costs. Unmet housing demand has also pushed housing production to the edges of our region and to outlying areas. San Joaquin, Stanislaus, and San Benito counties have produced much of the housing needed for Bay Area workers. People moving to these outlying areas has led to longer commutes on increasingly congested freeways and inefficient use of public transportation infrastructure and land. Negative impacts on health, equity, air quality, the environment and overall quality of life in the Bay Area also result.

The City conceded that it is “very apparent” in the Bay Area that “it is the physical relationship between the location of housing and jobs . . . that significantly contributes to several of the primary impacts of concern in the region, particularly air pollution and the excessive consumption of energy and land resulting from an inefficient sprawling land-use pattern.”

In short, the proposed general plan update means more sprawl, more traffic, more costly regional transportation projects, more noise, more land consumed by transportation structures, greater contributions to climate disruption, more maintenance obligations for stretched government

budgets, more air pollution, more transportation expense for individuals, more time consumed sitting in traffic, and less time for family and leisure.

Moreover, the City has no plan in place to pay for the costs of dealing with the traffic its plan would produce.

The City exhausted an innovative set of planning tools just trying to keep pace with the impacts from new traffic generated by its general plan update. Despite those efforts, the City still fell considerably short of even holding off new adverse impacts.

According to the City, "Traffic and the environmental effects of traffic, such as air pollution, noise, and greenhouse gases resulting from induced population growth in other jurisdictions will result in significant environmental impacts."

The California Legislature has enacted legislation in an effort to this kind of local planning and to ensure that communities are designed to reduce the amount of driving that people need to do to carry on their daily activities. (See Sustainable Communities and Climate Protection Act of 2008.) The California Air Resources Board has set a target, calling for a 4 percent reduction in per capita vehicle miles traveled (VMT), to be achieved through improved local planning. The City of San José now proposes to head dramatically in the opposite direction. Its proposed general plan would increase daily vehicle miles traveled (VMT) from 19.8 million to 34.8 million by 2035. (See Final Program EIR at 882.)

Even if the effect of population growth is factored out, the City's general plan update still represents a dramatic 32% increase in per capita VMT.

The City, relying on faulty advice from the Bay Area AQMD, failed to disclose the impact on GHG emissions resulting from lack of adequate housing and increased traffic.

The California Supreme Court has made it quite clear that ignoring such impacts "results in an 'illusory' comparison that 'can only mislead the public as to the reality of the impacts and subvert full consideration of the actual environmental impacts,' a result at direct odds with CEQA's intent."

(*Communities for a Better Environment v. South Coast Air Quality Management District* (2010) 48 Cal.4th 310.)

From: Scott Ding [mailto:[redacted]]
Sent: Friday, November 06, 2015 3:34 PM
To: City of Cupertino Planning Dept.
Subject: The problem with The Hills at Vallco

Dear members of the city planning committee,

Sand Hill Property has sent us many flyers about the plan called "The Hills at Vallco". The more I look at them, the more issues I can think of with this project. I don't have to wait any reports come out to tell, just use my common sense.

It is a very bad idea to replace current 1.2 million square foot Vallco shopping mall with 2 million square foot office space + 800 residential units. I like the place is still mainly be a shopping, entertainment, and recreation center. Not a huge office space and housing hub.

Not mentioning current heavy traffic at Wolfe and 280, the new Vallco project and newly built Apple Campus 2 would create tons of traffic. This is going to be nightmare for the residents around Vallco area.

I have not received any details of solutions in addressing this huge traffic problem. I don't think there are any.

This project is not a win-win, it is only one win, which is the developer.

I found this article for your reference. Sometimes, an outsider's view can tell something we don't know about.

Herhold: The problems with the Hills at Vallco

Herhold: The problems with the Hills at Vallco

There's much that is seductive about Sand Hill Property's plan for remaking the Vallco shopping center in Cupertino as "The Hills at Vallco," essentially a new urba...

View on **www.mercurynews.com**

Preview by Yahoo

Scott Ding
[redacted]

From: [redacted]
Sent: Friday, November 06, 2015 4:32 PM
To: City of Cupertino Planning Dept.
Subject: Vallco - Request for Comments

I think a refreshed Vallco would be great. I like the idea of new stores, restaurants, and nicely landscaped walking paths. I do not, however, like anything about the proposed plan for Vallco. I think it is designed for the ego of the developer, not for the citizens of Cupertino who have worked hard to live in a very nice community.

I don't care what seismic engineering assurances are in the proposal - would you want your child inside Vallco under that "hilltop" roof in an earthquake?

Cupertino vehicle traffic is already becoming very difficult. I carefully plan my route and time of day just to go to Safeway. You are adding cars on the road with the Apple building(s) and Main Street. Just do the math - how many condos and offices at Vallco will create how many more cars on the road? The developer's promise of a shuttle is laughable. I am not going to take a shuttle to go from my home to CVS, Home Depot and Sprouts. Improving the Wolfe/280 exit will not fix traffic on Stevens Creek, De Anza Blvd., Homestead, Stelling, and all the other current traffic jam areas.

Perhaps most important - our schools are the crown jewel of Cupertino. We are proud of our exceptional students, and many of us are pleased with the associated property values. Overcrowding our excellent schools so we can have a shopping center like the one being proposed would be a shame.

It is my hope that the Cupertino decision makers will make thoughtful, moderate choices to maintain our pleasant environment.

From: Walter Li [mailto:[redacted]]
Sent: Friday, November 06, 2015 5:20 PM
To: City of Cupertino Planning Dept.
Subject: Cupertino: The Hills at Vallco

You have received this link to the Cupertino from:
Walter Li [redacted]

http://www.cupertino.org/index.aspx?page=1365

The following are my comments regarding The Hills at Vallco:
1. With the upcoming release of Apple Campus 2 and The Main Street, plus proposed new Apple campus near Wofle / Central Expwy, my major concern for The Hills is with traffic mitigation. With such a large project such as The Hills, I cannot see how Cupertino can approve it unless a very satisfactory traffic plan is to be in place. Otherwise, The Hills should not be approved in its currently proposed scale.

2. I am also concern about such a large project dragging on with development / construction delays, or worse, with cost over run / law suits, etc., thus affecting the traffic and normal functioning of City of Cupertino even more Cupertino must demand a guarantee with penalties from the developer(s) if the project cannot complete in time.

Thank you.

Walter
[redacted]

Walter Li

From: Joel Adam [mailto[redacted]
Sent: Friday, November 06, 2015 8:49 PM
To: City of Cupertino Planning Dept.
Cc: Joel Adam
Subject: input for Vallco EIR

Hello,

I will not be able to make the scope meeting for the Vallco IER so I wanted to provide my input in an email. I would like the EIR to cover the following topics:

- Impact on traffic in the Vallco area. Make sure this takes into account traffic due to the new Apple campus and expansion plans for the Hamptons
- Impact on schools due to the new residential units planned for Vallco: Eaton, Collins, Lawson, Cupertino High. Make sure this takes into account that all of the new units are planned to be rentals which will result in no increase to tax base of city and no additional money for schools from the special assessments attached to property taxes. Would like to see some portion if not all of the residential units be converted from rental to ownership to increase tax base and revenues for schools.
- Air quality impact during to construction
- Odors from restaurants once the new Vallco is built. Make sure the restaurants have filters in place to make sure the smells from the kitchens do not reach the surrounding neighborhoods. I live behind the Elephant Bar. For many years, smells from the kitchen of the Elephant bar could be smelled in the neighborhood surrounding Wilson Park. This was fixed by the addition of filters. Now, there are smells from the trash from the Marukai supermarket …

Thanks,

Joel Adam
[redacted]

From: Gary Jones [mailto[redacted]
Sent: Saturday, November 07, 2015 7:02 AM
To: City of Cupertino Planning Dept.
Subject: The Hills EIR Comment

Will the EIR take into consideration the fact that the Mall was once a thriving center with substantial traffic and the area has been without that traffic for decades?

As to traffic, aren't we really talking about a differential traffic impact with the Hills from what the area was at one time, and what was originally planned for the area?

Gary Jones, Resident

Sent from my iPhone
Gary

From: Barbara Hurd [mailto:[redacted]
Sent: Saturday, November 07, 2015 12:15 PM
To: City of Cupertino Planning Dept.
Subject: Hills at Valco

Concerned the project is too big for area. Traffic and parking will be a nightmare. Cannot be solved with shuttles and encouraging bikes/walking.

Barbara Hurd
[redacted]

From: Mona Schorow [mailto:[redacted]
Sent: Saturday, November 07, 2015 2:28 PM
To: City of Cupertino Planning Dept.
Cc: Joan Lawler
Subject: LIMIT Development: The Hills at Vallco

Unfortunately, I'm unable to attend the upcoming meeting and feel strongly that additional development in Cupertino must be limited. Completion of the Apple campus and Main Street will increase the traffic; traffic already gridlocks some parts of the day. I don't live in the immediate area but the current gridlock makes parts of Cupertino inaccessible to me at commute times. Danger to pedestrians and cyclists grows. Cupertino doesn't have the infrastructure (subways, trains, buses) to effectively alleviate the traffic, parking, and density problems.

Smart growth. Not rampant overgrowth.

We need to deal with the current issues before exacerbating them.

Sincerely,

Mona Schorow

[redacted]

[redacted]

From: Michael Gor [mailto:[redacted]
Sent: Sunday, November 08, 2015 1:54 PM
To: City of Cupertino Planning Dept.
Subject: Regarding Vallco Mall project

With regarding to the proposed Vallco Mall Residential & office project. I am concern about the number of residential units and its impact on the school, traffic and character of the city. The number of residential units should be minimized.

michael gor

Be kinder than necessary, for everyone you meet is fighting some kind of battle.

From: Sue Coatney [mailto:[redacted]
Sent: Sunday, November 08, 2015 3:19 PM
To: City of Cupertino Planning Dept.
Subject: Comments on Hills at Vallco

Hello -

This email is in response to card received in the mail requesting environmental impact feedback on the proposed The Hills at Vallco project.

This project will have significant negative impact on the surrounding community and neighborhoods to Vallco.

There will be significant traffic impact of this project - there are 800+rental units planned for this project. With 2 cars per unit, that's an additional 1600 cars on the road, which will jam are already over-crowded streets. In addition, there is significant office space which is planned for this project - that also translates to even more cars. The traffic will increase the surrounding communities stress level, but it's also more air pollution, more car exhaust fumes, etc.
Yes, even if there is additional mass transit options, we all know that few people will actually take the bus.

There is also a huge issue of water. The rental & business units will all need water, not to mention the huge grass area they are planning. We already do not have enough water - we've all been asked to let our lawns die, take 5min showers, and to not flush the toilet. The Cupertino area just does not have the additional water resources to support huge grassy area or the 800+ rental units.

There is also an impact to the Cupertino schools, which in turn impacts the value of the existing Cupertino home-owners. Due to the units being rental units and thus only 1 land parcel, there will be no additional revenue from property taxes to support the schools, which will have an influx of additional students from the rental units. Declining school quality will have a negative impact on the Cupertino community as a whole.

Please vote against this project and protect both Cupertino and the surrounding neighborhood and communities.

Thanks,
Sue Coatney
[redacted]

From: Ruby Mitchell [mailto:[redacted]
Sent: Sunday, November 08, 2015 5:52 PM
To: City of Cupertino Planning Dept.
Subject: Hill of Vallco Project Proposal

Planning Commission,

As a 43 year resident of Cupertino my concerns re: proposed Hills of Vallco Project are as follows: Before any project is considered the following impacts should be weighed and put before the profit of developers at the cost of the quality of life of the residents of Cupertino.

Consider the total impact any project has on our environment including the following: Availability of Emergency Services such as, Ambulance, Fire, and Law Enforcement Crowding of Facilities such as Library, Parks, Retail, Restaurants, Schools, Senior Center, and Sports Fields Noise Pollution Parking Availability Quality of Air Sewage Traffic Congestion and Pollution Transit Availability Water Availability And more!

I believe absolutely no further building of any housing or office space in Cupertino should be approved and allowed until the current and any projected problems have been solved and dealt with successfully. That means such problems as the traffic congestion has been solved and schools built and ready BEFORE approval of any project and BEFORE any building starts. It doesn't seem responsible to continue to put the cart before the horse on any further projects such as councils have allowed in the past. No changes should be allowed to any project, such as the loss of senior housing and increase in office space in City Center, once that project has been approved.

We also currently need more retail, increased parking facilities, and well planned and executed bike lanes in Cupertino before any new projects that increases the population of residents and businesses should be considered.

Thank you for your time and consideration.

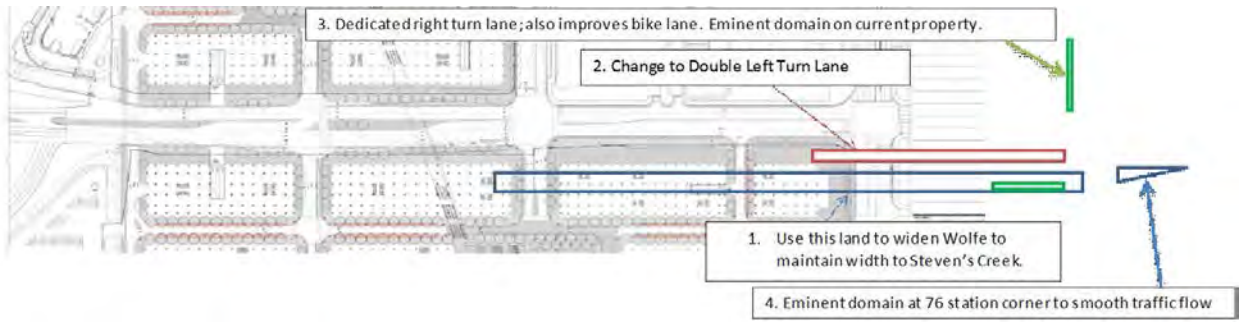
Please do the right thing for the residents of Cupertino.

Ruby B. Mitchell
[redacted]

From: Urs Mader [mailto:[redacted]]
Sent: Sunday, November 08, 2015 6:01 PM
To: City of Cupertino Planning Dept.
Subject: Suggestion to improve Traffic for Vallco EIR

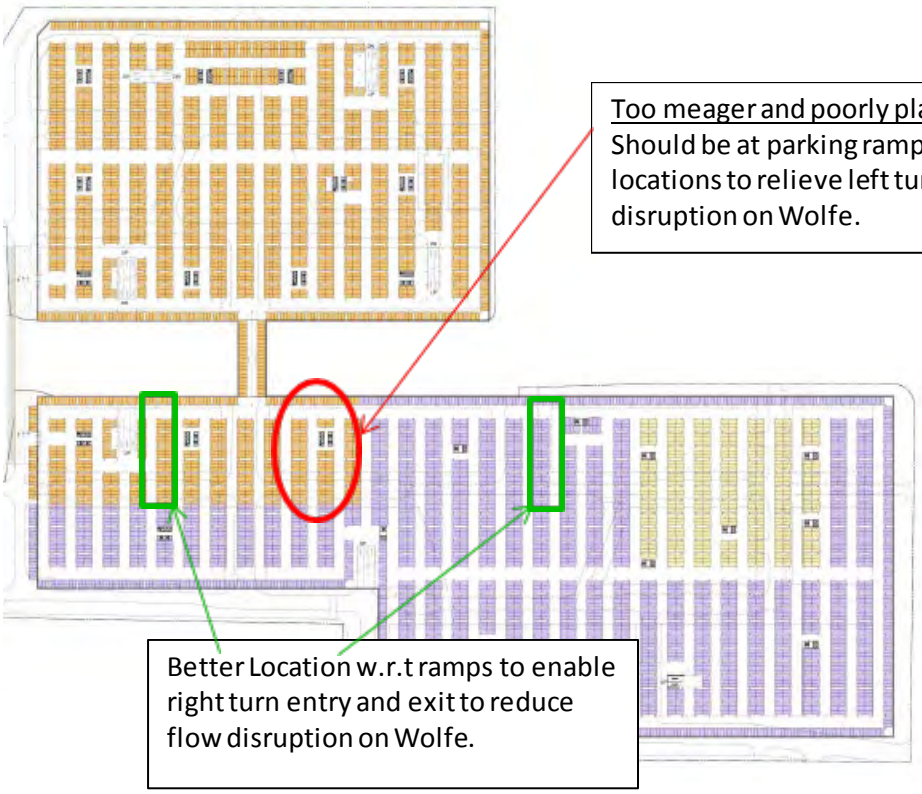
I have two Suggestions:

Improve the Wolfe/Steven's Creek Interchange:
Please consider asking the developer to alter the section of Wolfe leading up to Steven's Creek by widening Wolfe leading into Steven's Creek. The Wolfe/Steven's Creek Interchange needs help already. Problem is that left turn lane onto Steven's Creek East backs up significantly. West-Bound Steven's Creek right turn also backs up and currently crowds the bike lane on Steven's Creek heading north.



I realize that this is not the primary artery in and out of "The Hills", but this is already a problem. Perhaps Sand Hill could foot the bill for the land needed at the 76 and the Kaiser building since there will be some amount of increased traffic due to their development.

Improve the Parking Tunnels under Wolfe to enable Entry/ Exits for Right Turn Traffic Flow:
I like the fact that "The Hills" has multiple entrance and exits from the garage to smooth traffic in and out of the property. This traffic will likely still affect through traffic across the property however and maintaining Wolfe's full width along the entire length hopefully will help with this. In this regaurd, it may help if Sand Hill's development relies more on "right turn" entrance and exit by providing a wider connecter underneath Wolfe to facilitate this:



Urs Mader
Distinguished Member of Technical Staff IC Design
Office: +1 (408) 601-5878
Maxim Integrated | www.maximintegrated.com

From: Delores [mailto:[redacted]]
Sent: Monday, November 09, 2015 8:12 AM
To: Rod Sinks; Barry Chang; Gilbert Wong; Darcy Paul; Savita Vaidhyanathan
Subject: Valco

Dear Cupertino Mayor Sinks and City Council Members,

I sincerely hope you are not putting the city of Cupertino at financial risk with this, what could be a Pie-in-the-Sky plan for San Hill Property Co. to build up Valco. Their litigation issue, their not so good standing with banks, this unbelievable risk during a drought...what are you thinking?

I have not attended meetings. I do not plan to attend meetings. My sincere feeling about the Council is/has been that the Public is listened to but not believed.

I think it would be wonderful if Cupertino has this attraction (Much like the Mall of America which attracts customers worldwide,) but, this plan appears as a Fantasy.

Cupertino is not Hollywood Land and I see this plan being partially done, as in Sunnyvale, and our city being left with an expensive eyesore citizens paid for.

I've seen no publication that tells me where the money is to come from. Why? Are you afraid that would really bring out a storm of protests?

Sincerely, Delores Carson, [redacted]

From: E Yee [redacted]
Sent: Monday, November 09, 2015 8:51 AM
To: City of Cupertino Planning Dept.
Subject: The Hills at Vallco - EIR Scoping Meeting

Please include traffic, parking, pollution, water, city services (i.e. library, police, fire department) usage impact in the Hills at Vallco EIR.

Thank you

From: Better Cupertino [mailto[redacted]
Sent: Monday, November 09, 2015 12:18 PM
To: City of Cupertino Planning Dept.; City Council
Subject: Vallco project does not qualify for relaxed CEQA requirement.

Dear experts in the Planning Department,

The PDA (Priority Development Area) identified by VTA (never confirmed by the City Council, by the way) identifies commercial areas along Stevens Creek and De Anza as PDA, which would allow development projects to be approved with relaxed CEQA requirement.

The Vallco site is not within PDA. We would like to confirm that the Vallco project would NOT qualify to use relaxed CEQA requirement, per SB743.

Thanks.

Legislative Changes to CEQA Ease Requirements for Urban Infill Projects
http://realestatecounsel.net/2013/09/27/legislative-changes-to-ceqa-ease-requirements-for-urban-infill-projects/

- SB 743 would allow projects to be built even if environmental impacts are significant and unavoidable. These are highlighted in the article.
    - Inadequate parking and aesthetic impacts cannot be used to challenge a project under CEQA if the project is "on an infill site within a transit priority area.
    - New guidelines will be developed to determine the significance of transportation impacts of projects in transit priority areas.
    - Automobile delay, "as described solely by level of service or similar measures of vehicular capacity or traffic congestion," shall not be considered a significant impact on the environment under CEQA.
    - The adequacy of parking for a project shall not support a finding of significance.
    - Residential, employment center, or mixed use development projects in a specific plan area in which a prior environmental impact report ("EIR") was prepared are eligible for a new CEQA exemption.
    - Review of "environmental leadership projects" returns to the superior court, as well as appellate court, but both rounds of review must be completed within 270 days.
    - Certain streamlining provisions to CEQA were added for the benefit of a planned entertainment and sports center project in the City of Sacramento.

From: Cailan Shen [mailto:[redacted]
Sent: Monday, November 09, 2015 12:40 PM
To: City of Cupertino Planning Dept.
Cc: City Council; citystaff@cupertino.org
Subject: Concerns Regarding Vallco EIR from a Registered Voter of Cupertino

Dear Planning Commission and City Council members,

I am writing to you to express my concerns of the proposed Vallco project.
-- I would like the upcoming EIR to study traffic issue if there are 2 million sqft office at Vallco.
-- I would also like the upcoming EIR to study the possibility of keeping Vallco retail only.

Thanks for your consideration and please put this correspondence on public record.

Cailan Shen

From: Steve Kelly [mailto:[redacted]
Sent: Monday, November 09, 2015 5:36 PM
To: City of Cupertino Planning Dept.
Cc: Sean Devaney
Subject: Re: The Hills at Vallco

RE: The Hills at Vallco-

Cupertino has a great opportunity to avert a **monumental rent increase** on tenants near the new Apple Campus by adding the needed housing in the Vallco Re-development project. Cupertino **must find room** for the 14,500 new or relocating Apple employees and all the new Vallco office employees. To do this it will require a change in the Retail, Office, and housing mix in the Vallco project.

As a housing expert, I would highly recommend Cupertino require a quadrupling in the housing from 800 rental units to 3,200 units and a reduction in office jobs from 8,000 to 2,000 jobs. This will stabilizing local rents and reduce the traffic impact.

Now my plan would also require Cupertino Union re-open 1 or 2 closed school sites and a phasing in of housing as local school capacity is increased. Parents will like this change as walking distant to many local schools will be reduced.

If the needed housing is not added expect far worse **Traffic and Rental Rates to Soar!! Teachers, City Workers, The Elderly and young adults will see their rent to rise 35 to 50 %.**

Sincerely,
Steve Kelly
Home Owner & Real Estate Broker
[redacted]

From: Sujuan Cai [mailto:[redacted]
Sent: Monday, November 09, 2015 9:49 PM
To: planning@cupertino.orf
Cc: City Council
Subject: regarding Vallco EIR

Dear Planning Commission and City Council members,

I'm writing to you to express my concerns of the proposed Vallco project.

I would like the EIR to study following issues if there're 2 million sqft office at Vallco,
1. Traffic issues.
2. The possibility of keeping vallco retail on site
3. The possibility of build an on-site middle/high schools at Vallco.

I don't think the idea shuttle buses is realistic if there're 10,000 people working at Vallco. Could EIR include any further research?

Thanks for your consideration and please put this correspondence on public record.

Best regards,
Sujuan Cai
[redacted]

From: RUI LI [redacted]
Sent: Tuesday, November 10, 2015 12:07 AM
To: City of Cupertino Planning Dept.; City Council; City Clerk
Subject: Re: Vallco EIRDear Planning Commission and City Councils

Hello,

As a local resident here in Cupertino area with my kids going to CHS, I'm writing to you to express my concerns of the proposed Vallco project. I would like the upcoming EIR to study the impact of Vallco development on local school as the schools are already overcrowded. Furthermore, the impact on the local roads going to be horrendous as both Apple new campus and Vallco will be adding tremendous burden on our local roads.

I strongly advocate to have Sand Hill Development to build a new high school onsite at Vallco to compensate and mitigate the negative impact it has on our local community and our children.

Thank you for your consideration and please put this correspondence on public record.

Rui Li

From: Amy Liu [mailto:[redacted]
Sent: Tuesday, November 10, 2015 12:09 AM
To: City of Cupertino Planning Dept.; City Council; City Clerk
Subject: Vallco EIR

Hello,

As a local resident here in Cupertino area with my kids going to CHS, I'm writing to you to express my concerns of the proposed Vallco project. I would like the upcoming EIR to study the impact of Vallco development on local school as the schools are already overcrowded. Furthermore, the impact on the local roads going to be horrendous as both Apple new campus and Vallco will be adding tremendous burden on our local roads.

I strongly advocate to have Sand Hill Development to build a new high school onsite at Vallco to compensate and mitigate the negative impact it has on our local community and our children.

Thank you for your consideration and please put this correspondence on public record.

Amy Liu

From: Cathy Helgerson [mailto[redacted]]
Sent: Tuesday, November 10, 2015 8:28 AM
To: Piu Ghosh; Cathy Helgerson; Liang C; Peggy Griffin; City of Cupertino Planning Dept.
Subject: EIR Vallco

Hello,

These are my comments Piu Ghosh please e-mail me and let me know if you received them.

Cathy Helgerson
CAP - Citizens Against Pollution

As an attached Word document…

TO: City of Cupertino, Community Development, Attn: Piu Ghosh – Senior Planner

From: Cathy Helgerson

Regarding: Vallco Shopping Center EIR – The Public's right to comment as follows:

The Vallco Shopping Center consists of the District Specific Plan and the Hills at Vallco Project.

I am against the 30 acre green roof as follow:

1) The weight of the water on the building grass, trees and plants when it rains and when it is watered we are in a drought this water even thou it is recycled can be used someplace else. The weight of the dirt and what will this all do to the structure of the building can it withstand all of the weight what about the wear and tear over the years how will all of it hold up?

2) Water that is stationary breed's mosquitos we were just sprayed with poison to kill off the mosquitos in Cupertino so how will this garden grow?

3) Kids playing in the water and on the wet grass problem with slipping and falling will the Vallo owners pay for any accidents and incidents this project is a safety hazard in more ways than one. How about people falling or jumping off the building all kinds of things could happen when people are up on top of building people jump off bridges and building all the time. Will the owner higher a guard and will he be able to stop any problems on this roof top?

4) The expense of replacing the trees, plants and grass as time goes on this money can be used for more important things even if the owner is paying for it. It is ashamed that this use of money to put this green roof could not be used to feed the hunger and homeless people that live in Cupertino and the surrounding areas.

5) Where will this recycled water come from and how will it be brought up to the roof water is water it has to come from some place even recycled water who will monitor that? I suspect that the builder will use regular water and will not worry about the expense if no one is watching.

6) Drainage who will monitor the amount of water held up on the roof what if we do have rain in future a great deal of rain will the drainage be sufficient?

List of titles given on EIR and Comments as follows:

Aesthetics: Yes, definitely building mass, and height, lighting, and possible glare to adjacent land use of course there will be problems of all kinds in these areas I am totally opposed to this project because of all of these adverse environmental effects. I feel very sorry for the people that will be living around Vallco because of the problems above and also I am sure more problems that will come up.

Air Quality: The Silicon Valley has terrible air quality and things for sure are not going to get any better ever unless we make sure that where there is or could be a problem or problems are looked at and resolved. The Vallco Projects as a whole will create air, water and soil pollution on land and in the sewer areas. Water recycled over and over has great problems and how will this water be treated as so not to cause a health problem. Children will play in water no matter where it is and it will be a health hazard and problem. The air pollution why would you really want to put people on top of a building with the poor air quality out there the higher you get the worse it is this will cause many health problems and even death. Staying inside on especially spare the air days are a must so why put people outside on top of buildings. The soil is polluted already because of Lehigh Southwest Cement and Quarry and their operations they do not even close down during spare the air days and are causing the pollution we have to live with. The BAAQMD does very little to really control the pollution from Lehigh Cement and Quarry and they will not be able to control the air pollution coming from the construction of the Vallco projects. The underground garage will also cause air pollution and there should not be any underground garages because of air pollution and also because of earth quakes.

Biological Resources – Trees and nesting birds – It is very important that the City keep trees of all kinds and also we must consider the nesting birds in these trees. We must have the City water the trees in order to keep them alive. Pollution contaminates not only people but trees Lehigh Southwest Cement is contaminating the trees and birds as well as humans and animal alike chopping down trees at a glance is no way to keep the population healthy remember that. Historical – Not sure how that will be a factor in the EIR but if there is any historical value of any kind I am for it save it for our future and our children.

Geology and Soils – Seismic (Earth Quakes) yes, I believe that any building or additional weight on the ground needs to be looked at and considered in regards to Earth Quakes. We live near the San Andres fault line and other fault lines that any real disturbances including Lehigh Southwest Cement and Quarry and the Steven Creek Quarry with a new pit and mining could cause the next major earth quake. More building and higher buildings with more weight on the ground does cause earth quakes.

Hazardous Soil Conditions – The soil should be tested to make sure that there is no hazards related to the soil of any kind this should be a given. If there is any contamination and I am pretty sure that there could be especially with lead on the soil it needs to be taken out and disposed of. The tearing up and new construction could be a serious hazard if not looked into regarding lead and other pollutants that could become air born and hurt the public health wise.

Underground Garages – Problem first with air pollution cumulating underground which will hurt humans and animals alike. The problem with a possible earth quake I do not think we should build underground garages at all in Cupertino and California.

Greenhouse Gas Emissions – the increase of people businesses and cars will bring more pollution and with that pollution goes health problems. The contribution of this pollution is helping to cause the drought here in the valley, the US and the world we need to stop polluting the air, water and soil.

Hydrology and Water quality – Whenever tearing down structures there is concrete to deal with and other building materials these are hazardous pollutants to the workers and to the neighborhood. It is well known that air pollution can fly for miles so it is well to say that concrete has Mercury in it and that this will poison, contaminate and pollute the public. Read the information given on a package of concrete that you or a contractor my purchase it mentions the hazardous warning on the label package so this must be considered when any property is under new construction. The rain water or any other water used to keep down the dust will wash into our groundwater and this will put a great impact on our water quality.

Land use - Tree conservation is important and Cupertino has already lost way too many trees and counting and this is due to the drought and also due to the new building and parking lot construction going on all over the city. It is very important that the City understand that planting new small tiny trees take time to grow and it will take years in the meantime we have lost the benefits that the trees bring. More people moving into an area will bring more pollution on all levels noise pollution, traffic problems and construction problems will cause hazards of all kinds for months and probably years.

Noise and Vibration – there will be a long period of time that the public will have to endure this problem traffic will have to be rerouted around the building project on Steven Creek and Wolf Rd. this will cause problems on other streets as well. The backup of traffic on 280 alone will be and absolute nightmare how will the City handle this problem only time will tell we need to know what the City plans.

Transportation – With 280 Wolf Exit and Street improvement this will close down 280 which will put a terrible impact on De Anza Blvd and the Lawrence Street entrance to the freeway on Steven Creek again how will the City of Cupertino handle this? The traffic we must remember will always be a great problem more people means more traffic problems.

Utilities and Service – Sanitary sewer, storm drain, water, and solid waste services will be tested to their limits and the question still remains is there enough resources provided by the Cupertino Sanitation Department and the SJ Water Treatment Plant? I for one am not so sure this project needs to be submitted to the Cupertino Sanitation Department for approval if there is not enough lines or space they can refuse the project all together I want proof that there is enough space and I want it in writing submitted with this EIR. This information should be provided by both the Cupertino Sanitation Department and also the SJ Water Treatment Plant before any building of this project takes place and it should be available to the public.

Summary – The people of Cupertino want what is best for all parties concerned and we are very worried that projects of this magnitude can cause undue suffering to the public therefore we would like a very clear and a justified review of all of the hazards of all kinds that could take place. It is up to the City of Cupertino to make clear decisions with all of the precautions that must take place to insure our safety and the safety of our families this should not go unnoticed. Please review my comments and take them into consideration. Thank You.

From: RD J [mailto:[redacted]]
Sent: Tuesday, November 10, 2015 8:47 AM
To: Rod Sinks; Barry Chang; Gilbert Wong; Savita Vaidhyanathan; Darcy Paul
Cc: Varsha Joshi
Subject: Fw: Hills At Vallco

Resending this to the entire city council as I did not get a reply from Mr. Sinks. In addition, I note that the 800 or so units would pay a single parcel tax (ie less than most residents in the city). So how is this development a positive for anyone including schools? Please dig deeper and don't approve the environmental study tonight! Let's kill this before it becomes a bad idea for the city.
Rajeev Joshi

> On Oct 5, 2015, at 1:06 PM, RD J [redacted] > wrote:
>
> Dear Mr. Sinks:
>
> As a long time Cupertino resident (>20 yrs) living in the Vallco neighborhood, I have seen the change at the Vallco mall going from bad to worse. The current project - Hills at Cupertino is an example of the "worse". It is a very poorly conceived idea for a number of reasons.
>
> 1. We don't need the extra 800 multi family housing especially when it adds to the congestion in the Miller - Stevens Creek corridor especially when the Apple Campus ramps up. Just a few months ago, to cover the distance from Miller to Lawrence took 5 mins, now it takes 20 mins with traffic lights at every 100 feet or so with the retail space in front of Tantau has yet to be constructed fully to add to the congestion.
>
> 2. That particular developer has a poor history of development projects with similar projects either unfinished or tied up in litigation - we would not want such a stigma in our city.
>
> 3. I am very surprised that the city council held meetings beyond midnight to pass these projects- don't you want to have these forums attended by the residents to voice their opinions and discuss them live?
>
> 4. Please don't show statistics that several people "overwhelmingly" support this project- for relevance please take a poll of residents within a 5 block radius of the project and see what their views are- they should have the heaviest of all votes.
>
> 5. The idea of having another elementary school near Collins is ludicrous- where will the children play? In Portal park- which will get annexed by the school (thus depriving the neighborhood of a park), not to speak of the congestion during school hours.
>
> 6. The idea of office space equivalent to the empire state bldg. in New York is absurd - this was supposed to be a bedroom community, please keep it so.
>
> I clearly see my quality of life rapidly eroding if this project comes to pass.

Finally, I urge you and your leadership team of Cupertino to act responsibly - please stop the project NOW and not commission any environmental studies as we cannot afford those frivolous expenses- the residents in the nearby community have and will act again to overturn any decision you may make to support this project.

Sincerely,

Rajeev Joshi
[redacted]

From: Abu Wawda [mailto:[redacted]]
Sent: Tuesday, November 10, 2015 9:26 AM
To: City of Cupertino Planning Dept.
Cc: City Council; Rod Sinks; Barry Chang; Darcy Paul; Gilbert Wong; Savita Vaidhyanathan; Karen B. Guerin
Subject: Comments about The Hills at Vallco - EIR Scoping

Hi,

As a resident of Cupertino, I would like to comment on the Hills at Vallco rezoning proposal. I have huge concerns with the project. In particular I do not believe that rezoning Vallco for high-density housing (~800 apartments) is in the interest of the city and its residents. Here are my specific concerns:

1. Increased traffic and congestion due to additional residents. The argument that a lot of these apartments will be resided by Apple employees (and hence can just walk to work) is ridiculous. I work in the tech industry and most employees at companies like Apple do not want to live in apartments but rather end up buying houses. Also in the tech industry, there's a lot of turnover. Engineers frequently move from company to company. Traffic along Steven Creek between Lawrence and De Anza is already terrible.

2. Impact to local schools. I hear that Sand Hill Properties wants to build a new elementary school but what about middle school and high school? Cupertino High School is already crowded! There's no plan to address this.

3. Sand Hill Properties does not have a good reputation. Quite simply, I don't trust them. Look at their reputation with Sunnyvale. Did you see the article that was posted in the Mercury News regarding the project? Please see: http://www.mercurynews.com/scott-herhold/ci_28916780/problems-hills-at-vallco

4. Deceptive marketing. The Hills at Valco has been sending out information to the community regarding the project but there's no mention about the increase in office space and the new apartments!

While I do think it would be great if Vallco gets a makeover (it's certainly a sore eye), the answer is not by rezoning the mall for high-density housing and office space.

Thanks,

Abu Wawda
[redacted]

From: bchalam@yahoo.com [mailto[redacted]]
Sent: Tuesday, November 10, 2015 2:51 PM
To: City of Cupertino Planning Dept.
Subject: Hills-at-Vallco EIR Scoping Comments

Hi

I would like to put the following on record in the city of cupertino.

Our concerns are

1. Cupertino Resident quality of life will suffer due to increased noise, traffic and pollution
2. Reduction of Retail income for City of Cupertino.
3. Delay in Reaching emergency services at Kaiser due to increased traffic
4. Lack of transparency to cupertino residents due to intentional early morning or late night approvals.
5. Sandhill has a bad reputation as he promised senior center in Main street and once the approval was given he walked all over the council members to do what he wants.
6. Overcrowding in Cupertino.
7. Lack of water supply for the new residents.
8. Traffic congestion at the school time.

Thanks
Balaji Seshachalam
[redacted]

From: Joe Cleaver [mailto:[redacted]
Sent: Tuesday, November 10, 2015 3:42 PM
To: City of Cupertino Planning Dept.
Subject: Vallco Environmental Impact Study

Dear Planners:

Attached to this message is a letter focused on the planning of the Vallco renovation study.

Hope it is not too late.

Joe and Ann Cleaver

Attached as a Word document…

Joseph Cleaver
[redacted]

November 7, 2015

To: Cupertino City Council Members

Re: Environmental Study of Vallco Property

My wife and I have been residents of the city for over 35 years. We recognize its charm as others have: "Money" magazine listed it as one it its "Best Places To Live"; Cupertino was listed as one of 'America's Best Small Towns"; It has ranked 7th in the list of the "Happiest" suburbs in the U.S. These are fine accolades. Nevertheless, we are very aware of the rampant population growth it has experienced within its narrow 11 ¼ square mile boundaries. From 34,300 in 1980 to 60,700 in 2014. This growth has put increasing strains on the city's school and street infrastructure. The population density today is 5,200 per square mile which compares to our neighbor's, Saratoga at 2,400 and Los Altos at 4,500.

Two factors have led to this growth. First, its excellent schools have attracted national and international attention, and families seeking the best for their children have come to Cupertino seeing it as a good stepping stone to higher education. Second, Cupertino has a unique proximity to the high technology job market. Neither of these factors show any signs of slowing down. What concerns me is that the increasing urban density brings with it pollution, noise, security, crime and an overall declining lifestyle. In point of fact, after 38 years of zero crimes, our neighborhood street has had 3 burglaries this past summer.

Now comes the "Hills of Cupertino" with its glamorous promotional literature that portends a nightmare to the already overcrowded intersections at 280 and Wolfe Rd, De Anza Blvd and

Lawrence. I don't see this as something the public has been asking for. Rather it appears to favor only the landlords who can profit from the high prices the land can offer and the developers who can combine office, retail space, multi-storied parking garages and greatly expanded housing. Much of this is unnecessary. Our city, as originally planned, has many neighborhood parks and has added the Stevens Creek Trail.

In my opinion, the green, grass covered hillside Sand Hill promises. is nothing more than a marketing vehicle to make us feel we're getting something we want. I am opposed to the Sand Hill Property's proposal and see it as an environmental nightmare.

Sincerely,
Joseph Cleaver

From: Peggy Griffin [mailto[redacted]]
Sent: Wednesday, November 11, 2015 3:48 PM
To: City Council; City of Cupertino Planning Dept.; Aarti Shrivastava; Piu Ghosh
Cc: City Clerk; City Attorney's Office
Subject: Nov. 10, 2015 The hills at Vallco - EIR Scoping Meeting - PUBLIC MISINFORMED BY CITY!

Dear City Council, Planning Commission and City Staff,

PLEASE SUBMIT THIS INTO THE PUBLIC RECORD AND AS AN EIR SCOPING COMMENT FOR THE VALLCO SPECIFIC PLAN AND THE HILLS AT VALLCO PROJECT.

I attended last night's EIR Scoping Meeting at Community Hall on Tuesday, November 10, 2015 from 6:30-7:30 and later pm and I was appalled for these reasons:

1-MEETING SHOULD BE AT BEGINNING OF PROCESS-This meeting was 3 weeks into the process! This meeting and a "How to" meeting should have been done at the beginning or just prior to the beginning of this process!

2-MEETING FORMAT NOT PUBLICIZED-The format of the meeting was not discussed so expectations were that people could come and comment orally and also to ask questions and get answers.

3-**CITY REP MISINFORMED THE PUBLIC!!!** The people "running the show" should have been experts or at least qualified to answer questions. Instead, "Rick" (the man who let some people ask questions) misinformed the public. I was told he was the City Information Officer (not sure). He told the public that they could submit comments like "I am worried about the 2M sq. ft. of office". This is not true. Piu and Aarti tried to get him to be quiet!

The public does not trust the process. They left angry, frustrated **and misinformed** as a result of this meeting. Misinforming the public is WRONG! It negates this process and should be corrected immediately!

SUGGESTIONS TO CORRECT AND IMPROVE THE PROCESS:

1. **Extend the comment period deadline by 4 weeks to allow**
    a. An EIR information meeting where you tell people what the EIR will study (very quickly presented last night). Cover:
        i. What part of the project you look at i.e. finished project, during construction, what about the 2 other parcels owned by other companies?
        ii. What topics you look at
        iii. How they should phrase/write their comment so it will be addressed.
            1. Give examples of good comments
            2. Give examples of inappropriate comments
        iv. What alternatives you look at; how many; how can someone describe/suggest an alternative.

v. Allow questions and answers – just let people line up and ask 1-2 questions then go back to the end of the line.

b. Post information online
   i. comment examples (good and bad),
   ii. brief list of areas covered
   iii. slide presentation

2. **(VERY IMPORTANT) POST COMMENTS RECEIVED ONLINE-as you receive them!**
   a. This will build confidence in the process.
   b. People are worried their comments will be "lost". Waiting for the Draft EIR to find out they never made it in is not acceptable.
3. **POST RESPONSES TO EACH COMMENT AS THEY ARRIVE**
   a. Responses should be to EVERY comment so that the person can find out the answer.
   b. Responses should be posted as they are received.
4. **Use someone who is knowledgeable on the EIR details to "handle the crowd".**

Peggy Griffin
[redacted]

From: Lisa Warren [mailto:[redacted]
Sent: Wednesday, November 11, 2015 6:00 PM
To: Piu Ghosh; City of Cupertino Planning Dept.; Aarti Shrivastava; David Brandt
Cc: City Clerk; City Attorney's Office; City Council
Subject: Re: The Hills at Vallco - Notice of Preparation and Notice to sign up!!

Piu,
I did not receive an email from you today to let me know that the presentation slides and materials from last night had been uploaded anywhere on the city's website.
I just looked
here http://cupertino.org/index.aspx?page=26&recordid=1416&returnURL=%2findex.aspx but nothing has been added. There was nothing here
either: http://cupertino.org/index.aspx?page=26&recordid=1402&returnURL=%2findex.aspx

Would you please tell me if the requested/promised items can be found anywhere on the city's website?
The request was for all Scoping Meeting's power point slides as well as for contact information for the gentleman who presented on behalf of David J Powers Associates - I am sorry, I don't have his name with me.

There are people who would like this information so that the comments that they submit can be better thought out.
With comments due by end of business day next Monday, November 16, we need access to this information as soon as possible.

Thank you.

Lisa Warren

From: Bryan Lanser [mailto[redacted]
Sent: Wednesday, November 11, 2015 6:25 PM
To: City of Cupertino Planning Dept.
Subject: The Hills At Vallco

Unfortunately I am unable to attend the EIR meeting tonight, but I want to make sure that my concerns have been taken into consideration.

I do not believe that Sand Hill Properties is being forthright with the realities that The Hills will impose in terms of traffic that that area.

Every night I drive 280 heading West and observe bumper to bumper traffic on 280 heading East near the Wolfe Road interchange. It is stop and go for the time period fro about 5PM to well after 7PM. And all of this is BEFORE THE NEW APPLE CAMPUS OR MAIN STREET CUPERTINO HAS OPENED.

I want to see a comprehensive traffic and parking plan that covers the following:

1. Traffic flow on an hour by hour basis along the 280 corridor on a typical weekday for not only the 10,000 workers who could potentially occupy the 2 million square feet of office space at The Hills along with the parking plan for upwards of 6,000 cars for workers.

2. Overlay on to this the additional 13,000 workers who will be populating the new Apple Campus once it is opened (approximately 8000 vehicles).

3. Overlay to this the additional X thousand RESIDENTS who will live at The Hills AND at Main Street Cupertino. Please show the parking plan for the residents vehicles (average 1.5 vehicles per residential unit).

4. Overlay to this the hundreds if not thousands of workers and customers who will be patrons of The Hills retail shops, as well as shopping at Main Street Cupertino both retail shops AND the office space there.

5. Overlay to this current residents and workers for the Stevens Creek / Wolfe Road gateway area.

I wish to be assured that the anticipated traffic in this area will not cause extended or total gridlock on 280. I don't care how many busses Apple plans to run, I want to see a car-based culture plan that alleviates this potential quadrupling of current traffic in this area.

I look forward to seeing these comprehensive traffic studies. I also ask that they be published in the Mercury News as well as the Cupertino Courier as this has the potential to affect the ENTIRE SOUTH BAY COMMUTE along the 280 corridor.

I highly suggest this project be put up to public vote as the impact will be large, and any negative impacts will likely be permanent.

Thanks very much for your attention to this matter.

Bryan Lanser (and others)

From: Liang C [mailto[redacted]]
Sent: Wednesday, November 11, 2015 7:03 PM
To: City Council; City of Cupertino Planning Dept.
Subject: 30-acre rooftop park is not even big enough for 10,000 workers

Dear Councilmembers and Planning Commissioners,

The Hills at Vallco claims to provide 3.8 miles of trails on the rooftop. (Note that the rest of the 30-acre park is not accessible like a regular park. Only designated areas are accessible.)

3.8 miles equals 6.1 km = 61,000 meters.

Line up the 10,000 workers from the 2 million square feet of office. **Each person has to be 60 cm apart to just take a stroll at lunch on the-3.8 mile-long trail.** There is little room to just take a leisurely walk on the rooftop even for the 10,000 employees of The Hills at Vallco. No more room for the 2,400 residents of Vallco.

Let alone any room for Cupertino residents, even if the rooftop is built as promised.

Will these 10,000 workers and 2,400 residents compete for the limited parkland available in the area and the limited gym facilities in Cupertino?

Liang

From: Liang C [mailto:[redacted]]
Sent: Wednesday, November 11, 2015 7:31 PM
To: City Council; City of Cupertino Planning Dept.
Subject: Can Vallco compete with Valley Fair and even surpass it?

[Please include this in Vallco EIR comment.]

Dear Councilmembers and Planning Commissioners,

In order to revitalize Vallco successfully, we need to understand why Vallco has been struggling in the first place.
This article below compares the history between Vallco and Valley Fair to shed some light on the difference: Vallco has been operated by a string of inexperienced owners or owners who would prefer to turn it into something else more profitable to them.

As Greensfelder said in the Retail Strategy Report done in March 2014 for GPA:
"...while its competitors renovated...Vallco languished with incomplete development, defaults from prior ownerships, prolonged and unrealized redevelopment plans, management changes and other setbacks."

Does Sand Hill has the ability to revitalize Vallco? Or would Sand Hill just be another one of those inexperienced owners who have no idea how to run a successful shopping center?

The following article appears in Oct. 23 Cupertino Courier/Silicon Valley Community Newspaper.
(a scan of the paper)
https://drive.google.com/file/d/0B7RMc9DXGhUAcUlyUmdGODJvcU9EYkZsMm9MNWE3WTBWLXpR/view?usp=sharing

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Can Vallco compete with Valley Fair and even surpass it?

The location? Similar access to freeways.

The size? Similar. 1.3 million square feet versus Valley Fair's 1.5 million square feet.

Average household income? Vallco sits closer to more affluent communities in the west. The economy is among the strongest in the nation with a growing population. Shopping malls around Vallco are booming.

It is impossible to revitalize Vallco without learning the true causes behind Vallco's struggles.

The reason Vallco has floundered is because it had a string of inexperienced owners who do not know what it takes to operate a successful shopping center. Some are developers more interested in building housing or more profitable alternatives. Others either suffered financial troubles, unrelated to Vallco, or simply neglected it.

Can Sand Hill Properties (SHP) break the cycle? Given that SHP defaulted on a loan of merely $108 million dollars in Sunnyvale Town Center. Given that the retail space of most SHP's projects are no more than 150,000 square feet.

Comparing and contrasting the list of owners of Vallco and Valley Fair, one can easily see that the two malls have dramatically different fates. One is an abused and neglected orphan and the other is a well-invested, well-maintained and cherished child.

Valley Fair has had two owners since 1986, The Hahn Company and Westfield Corp, both specialize in operating shopping centers. Westfield Corp. operates 38 shopping centers in the United States and abroad. They actively manage the centers by attracting top retailers and eliminating underperforming ones. They host concerts, fashion shows, festivals, and other events to attract customers. They continue to invest hundreds of millions of dollars to renovate the malls they operate.

Meanwhile, Vallco has bounced from from one inexperienced owner to another. One renovation attempt in 2005 started out by closing the lower level of the mall and ended with 24 percent occupancy. Some retailers claimed rent was raised and many shops were driven out.

Around the same time, the 2005 General Plan was amended and residential and hotel uses were added to the Vallco area, most likely under the influence of developers. Then, a part of Vallco was rezoned for-- condominiums. In 2006, a citizens' referendum—Measure D—overturned the rezoning. Soon after, Vallco was sold off in 2007 and the new owner went bankrupt in 2008. In 2009, Son Son Co., a Vietnamese food processing company, bought Vallco with $64 million cash. No more investment since 2009, according to Vallco's management.

Vallco is an ill-nourished and even abused child, who has the potential to shine with the care of an experienced operator of retail centers. SHP has a unique chance to reinvent Vallco as a one-of-a-kind state-of-the-art successful regional shopping center to surpass Valley Fair and Stanford Shopping Center. Vallco could not only become one of the best shopping centers in the Bay Area, but also bring in millions of sales tax dollars to diversify the tax base in Cupertino.

From: Liang C [mailto[redacted]]
Sent: Wednesday, November 11, 2015 8:15 PM
To: City Council; City of Cupertino Planning Dept.
Subject: Brand New Shopping Center Only Costs $350 Million Dollars to Build

[Please include this in Vallco EIR comment.]

Dear Councilmembers and Planning Commissioners,

I hope to share with you a wonderful brand new shopping center just built in Southern California: Village at Westfield Topanga.

It costs only $350 million to build and it also provides many community amenities, including a swimming pool, a gym, basketball court and a community center. And it's anchored by Costco.

We don't need a humongous office park in order to revitalize Vallco. As one friend in commercial real estate told me, if a shopping center is built as a fringe benefit for a project, it is a guaranteed failure.

Would Vallco Shopping District live up to its name as a part of The Hills at Vallco?
Does Sand Hill have any strategy or experience operating a shopping mall?
Would Sand Hill be able to attract upscale shops as promised?
Has Sand Hill been able to furnish Main Street with upscale and vibrant shops that they've promised as the downtown of Cupertino?
What strategies are they using to attract shops to Main Street?
Would the same strategies apply to Vallco?
Would those strategies be able to operate and sustain a shopping center for the long run?

If I am allowed to dream, Village at Westfield Topanga, just opened on Sept. 11, 2015 is the kind of shopping center, I wish for. An Outdoor garden with a creek running through it and anchored by Costco. It has a swimming pool, a gym with a view, basketball court and a community center.

The best part. Guess how much it costs to build? $350 million dollars.

Nice renderings here:
http://www.malls.com/us/malls/the-village-at-westfield-topanga.html

More detailed description here:
http://www.4-traders.com/COSTCO-WHOLESALE-CORPORAT-4866/news/Costco-Wholesale--Village-at-Westfield-Topanga-An-economic-driver-and-downtown-for-the-Valley-21031856/

...Just some points that I like:
+ The Village's main anchor tenant is Costco, on the south side of Victory at Owensmouth. The warehouse retailer that sells everything from fine wine to prescription drugs opened Saturday.
+ The new retail area consists of about 80 stores grouped into 11 categories ranging from restaurants to health and wellness, plus some service providers.

+ A clinic affiliated with UCLA Medical Center is part of the latter, as is a sprawling 24 Hour Fitness that anchors the south end of the property.
+ That three-story building has a large swimming pool on the second floor with windows that look onto a ridge line to the west, and the third-floor weight room offers a panoramic view of the Valley. There is also a basketball court.
+ The Village also has five health and fitness retailers, eight beauty and wellness retailers, five home furnishing stores, six jewelry and accessories stores, 11 clothing retailers, three electronics stores and financial firms and 12 specialty retailers.
+ This is also a bocce ball court, long birthday table that can be used for parties and a book exchange area.
+ Lighted areas will be available for events and entertainment day or night, including exhibits by local artists and year-round music performances.
+ Pets are welcome, and bike racks and lockers are available for free. There are also showers available for people who bike to work and need to freshen up before heading to the office or store.
+ According to another article, it also includes a 8,000-square-foot community center with catering facility.

We don't need a humongous office park that doesn't benefit anyone.
With the green toupee peeled off, the Hills at Vallco is simply San Francisco downtown transported to Cupertino with some ramps to connect to rooftop.
Any glimpse of green is at 8-story tall (except when viewing from Perimeter Road).
We don't want and we don't need a $3-billion-dollar project.

I would rather that Sand Hill focus on how to design a shopping mall that people asked for (as their flyer shows). I would rather that Sand Hill does not spend so much money and time to pretend that they are building a shopping mall. They are building cell-block after cell-block of something, which appears to be downtown in a metropolitan area. Certainly not a cute downtown like Saratoga or Los Gatos.

We don't need a downtown in Cupertino. We need a true shopping center.

Sincerely,

Liang Chao

From: Liang C [mailto:[redacted]]
Sent: Wednesday, November 11, 2015 9:30 PM
To: City Council; City of Cupertino Planning Dept.
Subject: Fwd: Vallco is 9-story tall. And the "green" rooftop park is mostly at roof of the 8th or 9th floor.

[Please include this in Vallco EIR comment.]

Dear Councilmembers and Planning Commissioners,

Did you know that Vallco will be as tall as 9-story buildings at 114 feet, which is even a bit taller than Cypress Hotel at the Corner of Stevens Creek and De Anza.

Not only that. Most of the 30-acre rooftop park will be at the roof of 8th floor of the 9th floor, according to the Parking Drawing.
From the street level, you can hardly even see a glimpse of the "greenery" at that height.
And the height right next to the single-family homes near Perimeter Road will be 7 stories.

That's how massive The Hills at Vallco is. I hope you comprehend what kind of project you are going to approve in Cupertino, in place of the only remaining shopping center in Cupertino.

Here is the Parking Drawing. It gives a good overview of the building mass.
There are 11 pages. One for each floor. It goes from B1, B2, 01 (street level), 02... 09 (top floor).
https://s3.amazonaws.com/the-hills-at-vallco/Parking-Drawings.pdf

For orientation. The bottom is the west side near Perimeter road (Joanne Fabric). The left side is near 280. The right side is Stevens Creek.

Go to Page 11 for diagram P-0809 (9th floor).
You see the grey part with trails. That's the rooftop park.
Go to Page 10 for diagram P-0808 (8th floor).
Go to Page 9 for diagram P-0807 (8th floor). => Most of the grey part is gone, except near Perimeter Road and over Wolfe.

This shows that most of the "green" roof is on the roof of the 8th floor or 9th floor.
Cypress Hotel at the corner of Stevens Creek & De Anza is a 9-story building.
So, the entire 53-acre site of Vallco will be covered with buildings as tall as Cypress Hotel. The "green" rooftop would be barely visible at that height.

Single family homes adjacent to Vallco will be right next to a 9-story building with some green covering starting from 7-story tall.
There is barely any buffer.

Only the bottom side right next to Perimeter Road has some green at lower elevation.

So, it won't look like a "hill". We won't see much of the "green" rooftop unless you are in a helicopter.

Just imagine you are in San Francisco downtown with tall buildings all around you. Paint the rooftop of those buildings green. And that's The Hills at Vallco for you.

From: Kent Vincent [mailto:[redacted]]
Sent: Wednesday, November 11, 2015 10:03 PM
To: City of Cupertino Planning Dept.
Subject: Vallco EIR

Re: My letter to the City: "The Numbers: Why the Council Must Vote No on the Hills at Vallco"
November 11, 2015

MIXED USE PARKING AT HILLS AT VALLCO

At last night's EIR public meeting I heard a City perception that mixed parking would not be an issue at The Hills at Vallco because office parking and retail parking will be on opposite sides of the complex by design, office parking nearer the centroid of office build, retail parking nearer Stevens Creek Blvd. I want to dispel that this purposeful design will mitigate the very serious mixed use parking issue.

As mentioned in my letter, Wolfe Rd., its Hwy 280 interchange and office parking lots at Apple 2 and the Hills are going to be greatly impacted by the congestion of their collective 20,000 new daily commute vehicles that enter and depart Wolfe Rd. each work day during the relatively narrow 7-10 am and 4 – 7 pm commute hours. The Hills office commuters will naturally seek parking alternatives that shorten the commute time between their home and office desk. In many cases, this will involve taking the longer walk between their desk and intended retail parking spaces which have direct Stevens Creek Blvd. access. The rear and front parking areas will appear to office workers simply as alternatives just as rear and front parking areas do at Valley Fair. Keeping in mind that the 10,000 office workers at Vallco will consume more parking spaces than offered at the entirety of Valley Fair, the enormous parking demand by Vallco office workers will consume a detrimental portion, if not all, of the parking spaces intended for shoppers before retail stores open, which will make The Hills at Vallco unattractive as a retail center and risk its failure.

Respectfully,

Kent Vincent
Cupertino

From: Liang C [mailto:[redacted]
Sent: Wednesday, November 11, 2015 10:12 PM
To: City Council; City of Cupertino Planning Dept.
Subject: Vallco Specific Plan - density, heights, setbacks and building planes

[Please add this to Vallco EIR comment.]

Dear Councilmembers and Planning Commissoners:

Since the public was never given a chance to comment on Vallco Specific Plan, I assume that now is the chance to comment.

Cupertino should consider updating its Municipal Code to govern density, heights, setbacks and building planes for mixed use projects when it is next to lower density residential homes or apartments.
This is in fact suggested by the ABAG guidelines. But Cupertino General Plan or Municipal Code did not follow it.

Please consider adopting an ordinance to govern mixed use zoning, since many sites in Cupertino are already zoned for mixed use.

All parcels along Stevens Creek and all parcels along De Anza are all zoned for mixed use already. Therefore, it is important to regulation mixed use zoning since many more future projects will be mixed use projects.

Other cities use FAR (Floor-area-ratio) to define how dense a mixed use project could be. But Cupertino has no such standard. The only limit is height, which in some way encourages developers to fill up a mixed use site with cell block buildings to maximize their usable square footage and result in unattractive designs.
Nineteen800 is one such cell-block type building and Marina is another. The Hills at Vallco consists of many blocks of rectangular cell block buildings, which is found only in downtown of big metropolitan areas. Certainly The Hills at Vallco doesn't fit to be a downtown of a small suburban city like Cupertino.

I would suggest that

- **Vallco Specific Plan to set a limit of FAR at 1.0.** Such a limit would encourage more open space as the building height increases and more attractive design with staggered building heights.

I would suggest that Vallco Specific Plan follows similar guidelines used in Palo Alto Municipal Code for their mixed use zoning (called Planned Community Zoning or PC Zoning). Specifically,

- **the maximum height within one hundred fifty feet of any R1, R2, or other residential zoning or P zoning with residential use shall be thirty-five feet.** (The same standard as Palo Alto's)

- **The minimum setback should be at least 10 feet and a solid wall or fence or landscaped buffer between 5 and 8 feet in height shall be constructed and maintained along the common site line**. (The same standard as Palo Alto's)

Palo Alto Muni Code 18.38 (Planned Community Zoning) contains:
18.38.150 Special requirements.
Sites abutting or having any portion located with one hundred fifty feet of any RE, R-1, R-2, RM, or any PC district permitting single-family development or multiple-family development shall be subject to the following additional height and yard requirements:
(a) Parking Facilities. **The maximum height shall be equal to the height established in the most restrictive adjacent zone district.**
(b) All Other Uses. **The maximum height within one hundred fifty feet of any RE, R-1, R-2, RM, or applicable PC district shall be thirty-five feet;** provided, however, that for a use where the gross floor area excluding any area used exclusively for parking purposes, is at least sixty percent residential, the maximum height within one hundred fifty feet of an RM-4 or RM-5 district shall be fifty feet
(c) Sites sharing any lot line with one or more sites in any RE, R-1, R-2, RM or applicable PC district, a minimum interior yard of 10 feet shall be required, and a solid wall or fence between 5 and 8 feet in height shall be constructed and maintained along the common site line. Where a use in a PC district where the gross floor area, excluding any area used exclusively for parking purposes, is at least sixty percent residential, the interior yard shall be at least as restrictive as the interior yard requirements of the most restrictive residential district abutting each such side or rear site line. The minimum interior yard shall be planted and maintained as a landscaped screen.
(d) On any portion of a site in the PC district which is opposite from a site in any RE, R-1, R-2, RM or applicable PC district, and separated therefrom by a street, alley, creek, drainage facility or other open area, a minimum yard of 10 feet shall be required. Where a use in a PC district where the gross floor area, excluding any area used exclusively for parking purposes, is at least sixty percent residential, the minimum yard requirement shall be at least as restrictive as the yard requirements of the most restrictive residential district opposite such site line. The minimum yard shall be planted and maintained as a landscaped screen, excluding areas required for access to the site.
(e) Sites sharing any lot line with one or more sites in any RE, R-1, R-2, RM or any residential PC district shall be subject to a maximum height established by a daylight plane beginning at a height of ten feet at the applicable side or rear site lines and increasing at a slope of three feet for each six feet of distance from the side or rear site lines until intersecting the height limit otherwise established for the PC district; provided, however, that for a use where the gross floor area excluding any area used exclusively for parking purposes, is at least sixty percent residential, the daylight planes may be identical to the daylight plane requirements of the most restrictive residential district abutting each such side or rear site line until intersecting the height limit otherwise established for the PC district. If the residential daylight plane, as allowed in this section, is selected, the setback regulations of the same adjoining residential district shall be imposed.
(Ord. 3683 §§ 12, 13, 1986: Ord. 3465 §§ 40, 44, 1983: Ord. 3418 §§ 2 and 3, 1983: Ord. 3130 §§ 11, 25(f), 1979: Ord. 3108 § 9,

Sincerely,

Liang Chao

From: Liang C [redacted]
Sent: Wednesday, November 11, 2015 11:41 PM
To: City of Cupertino Planning Dept.
Subject: Fwd: Vallco Architecture Drawing next to the single family homes by the "wall"

[Please add this to Vallco EIR comment.]

Below is the architecture drawing of The Hills at Vallco. It shows a 7-story building will be erected right next to single family homes within about the same distance as the next single-family homes. The impact on aesthetic view and privacy for homes within 500 feet of the property line, within a visible range, should be studied.

Whether or not these factors might affect the decisions on project approval, the impact of a 7-story or even a 9-story building on the surrounding neighborhoods should be studied and documented.

Please study:

- At what angle these homes can see the moon coming up before The Hills at Vallco is built?
- At what angle these homes can see the moon coming up after The Hill is built?
- How much of the ridge line would be blocked by The Hills?
- As the Sun comes up each morning, how much shorter the gardens of these single-family homes would be exposed to morning sunshine?

Since the very tall commercial building will be as close to the single-family homes as the next door neighbor, the invasion of privacy on these single family homes should be studied.
Please study:

- The range of sight of any visitor on the rooftop park during day time into the direction of single-family homes.
- The range of sight of any visitor on the rooftop park during night time into the direction of single-family homes.
- The range of sight of any maintenance worker on the rooftop park during day time into the direction of single-family homes.
- The range of sight of any maintenance worker on the rooftop park during night time into the direction of single-family homes.
- The range of sight of any visitor of the 7-story commercial building during day time into the direction of single-family homes.
- The range of sight of any visitor of the 7-story commercial building during night time into the direction of single-family homes.
- The range of sight of any maintenance worker, such as window cleaner, of the 7-story commercial building during day time into the direction of single-family homes.
- The range of sight of any maintenance worker, such as window cleaner, of the 7-story commercial building during night time into the direction of single-family homes.

As the commercial building might be lighted at night all night long as many other commercial buildings do for security reasons, please study:

- the impact of light pollution from the commercial buildings on single-family homes at night.
- the impact of light pollution from the additional street lights installed The Hills.
- the impact of the ability to observe stars from the gardens of single-family homes at night.

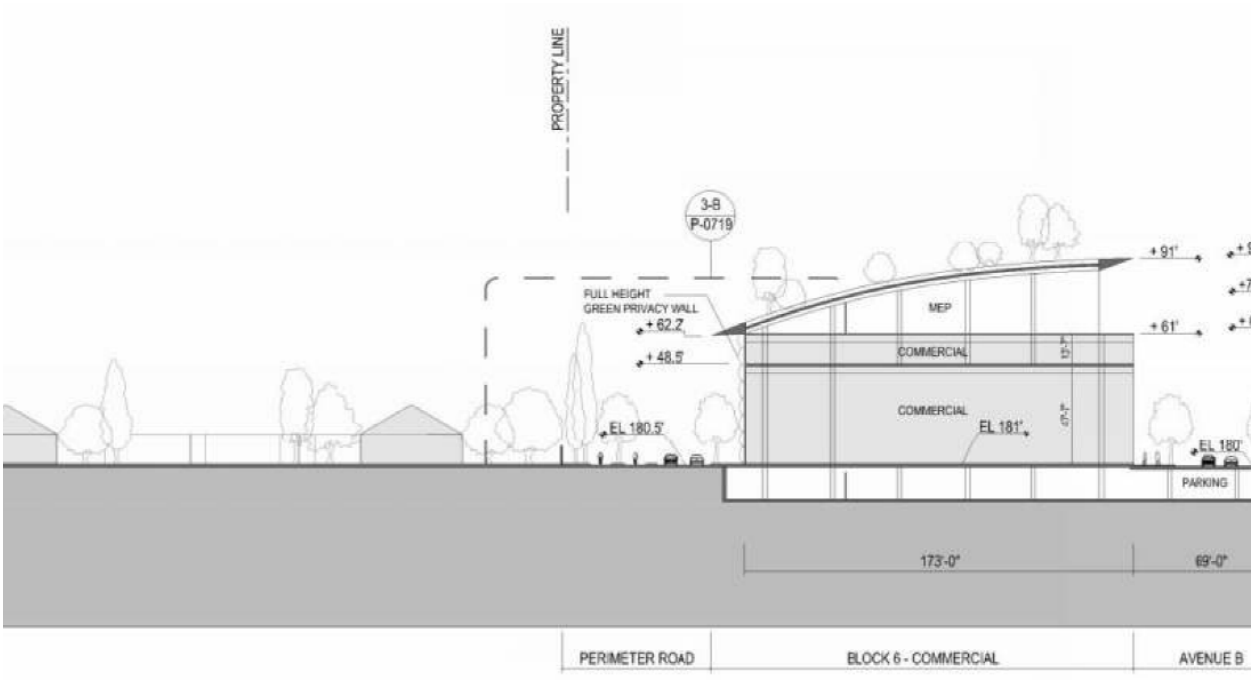
Also, during the construction of The Hills at Vallco, the following should be studied:

- the privacy of the single-family homes within visible range by construction workers.
- noise levels of construction equipment or digging equipment for underground garage.
- pollution from dust of digging or construction materials.

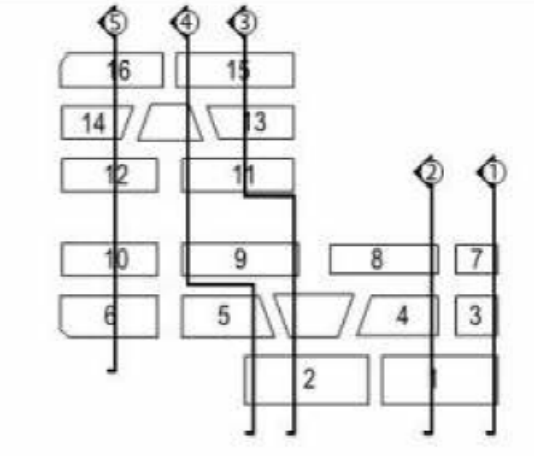
Thank you.

Page 13 of the Architecture Drawing: https://s3.amazonaws.com/the-hills-at-vallco/Architecture-Drawings.pdf

Slice view 5: (below section is the leftmost side of Slice view 5)
The Vallco building (Building 6) will be as far as the house of their nextdoor neighbor.
And it will be as tall as 90 feet, gradually increasing from 65 feet.
With 10-12 feet per floor, that's about 5 to 7 stories tall.



Slice view 5: (Left is North. Stevens Creek is on the right. So, Slice View 5 shows the height next to single-family homes, next to the wall).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From: Liang C [mailto:[redacted]]
Sent: Thursday, November 12, 2015 1:13 AM
To: City of Cupertino Planning Dept.
Subject: Options to Study - sizes of shopping centers, operators, separate or integrated, housing and office

RE: Comments for Vallco EIR Scope

Please evaluate the option of renovating Vallco as a regional shopping center with 1.2 million square feet of space for retail, dining and entertainment, like the Village at Westfield Topanga, just opened in September 2015 and cost only $350 million to build.

And please evaluate the option of Vallco Shopping Center, operated by expert shopping mall operators, like Westfield, Simon Property, General Growth Properties (GGP), Federal Realty, Taubman Centers, Rouse Properties, Macerich, DDR Corp., Starwood Retail Partners, Caruso Affiliated, just to name a few.

Specifically, please study:

- Vallco rebuilt as a regional shopping center (1.2 million square foot) and operated by one of the expert shopping mall operators. (Assuming that such arrangement is possible. For example, Simon Property leases the land of Stanford Shopping Center from Stanford University by paying a leasing fee and 25% of net income.)
- Vallco rebuilt as a regional shopping center (1.2 million square foot) and operated by other non-expert shopping mall operators, such as Sand Hill or previous Vallco manager.
- Vallco rebuilt as a lifestyle center (625,000 square foot) and operated by one of the expert shopping mall operators.
- Vallco rebuilt as a lifestyle center (625,000 square foot) and operated by other non-expert shopping mall operators, such as Sand Hill or previous Vallco manager.
- Vallco renovated, but keeping the existing structure and footage and operated by one of the expert shopping mall operators.
- Vallco renovated, but keeping the existing structure and footage and operated by other non-expert shopping mall operators, such as Sand Hill or previous Vallco manager.

Please also evaluate these options on the viability to run a successful shopping center:

- The shopping center part is separate from most of the housing and office park.
- The shopping center part is integrated with the housing and office park.

Please evaluate these options for housing:

- No housing.
- 200 units of housing.
- 389 units of housing (same as allocated in Housing Element).

Please evaluate these options for office:

- No office.
- 60,000 square feet of commercial office space (same amount as Santana Row) - for smaller service businesses or afterschool classes.
- 120,000 square feet of commercial office space (1/10 of retail space, same ratio as Santana Row) - for smaller service businesses or afterschool classes.

Thanks.

Liang Chao

From: Jenny Chiu [mailto[redacted]]
Sent: Thursday, November 12, 2015 1:39 PM
To: City of Cupertino Planning Dept.
Cc: City Council; citystaff@cupertino.org
Subject: Regarding Vallco EIR

Dear Planning Commission and City Council members,
I'm writing to you to express my concerns of the proposed Vallco project. I would like the upcoming EIR to study:

I would like the EIR to study the possibility of build an on-site school at Vallco, the builder need to response for the increase of number of students in the near future instead of just moving students around campus and have the property tax payers pay for the price later on.

If Sand Hill can't bring any benefit to the community, then the proposed project should be stopped.

Thanks for your consideration and please put this correspondence on public record.

Sincerely,

Jenny Chiu

From: [redacted]
Sent: Thursday, November 12, 2015 8:07 AM
To: City of Cupertino Planning Dept.; City Council; better-cupertino-[redacted]
Subject: EIR scoping for the Vallco District

To begin with, I have two general comments.

The EIR is either premature or its scope is not fairly defined. Since the major property owner's proposal is not what the area is zoned for, it should not be the sole, or primary focus of an EIR, with other options mentioned only in passing. A significant segment of this community wants to see a successful retail/dining/entertainment center on the premises (and a referendum was won in the past on this very issue). Therefore, a fair comparison must be drawn between the impact these options would have on the environment and quality of life of Cupertino (and neighboring cities). The review should be defined as an EIR of the Vallco District, not the "Hills of Vallco."

Secondly, although the consultants are from a respected agency, it is unseemly to have an evaluation prepared entirely by consultants working for, and closely with, the city government and, especially, the applicant. We need independent, outside experts, possibly chosen together with community representatives, to participate in the review.

Now, as far as the content of the review is concerned, the impact of alternate forms of development in the Vallco District should be focused, inter alia, on the areas below. Attention should also be directed to the effects of large-scale development in general on the environment and quality of life in Cupertino.

A. Traffic, including congestion and resulting air pollution, both on Wolfe Road **and on 280**. Compare:

Traffic now, at peak hours;
Traffic when Apple and Main Street are operational;
Additional impact on traffic of various uses of the Vallco site.

Bear in mind that traffic peaks at different hours at malls and at office parks. How will any promised improvements for access to 280 from Wolfe Road affect traffic **on 280**? And will traffic then back onto Wolfe Road anyway? (cf. the Lawrence/237 East interchange, where at times traffic cannot enter 237 and backs onto Lawrence).

B. Availability of water. Right now, there is a drought and residents are being requested by the City government to restrict water use in various ways. If serious drought conditions persist, how will there be enough water to support intensive growth? If we return to "normal" NorCal water conditions, but water is gifted to an office park (and apartments beyond the housing element requirement) will the residents still have to monitor the length of our showers? What does this mean for the quality of life of Cupertino residents? *Compare recommended water usage for Cupertino residents under various conditions of drought and levels of development*.

C. Other effects on quality of life:

Heights and densities in what is now mostly a pleasant, low-rise suburban atmosphere;

Loss of actual and potential retail. Cupertino now has no major department store or appliance store, nor some of the better shops that an affluent city would expect. Given the office and residential development on the east side of Wolfe Road, calculate the size of this large new "captive" market for a well-run retail-dining-entertainment complex. Analyze and the likely success factors of a mall operated by professionals (not real estate speculators).

Is it necessary to raze Vallco entirely? What would be the environmental impact of such large-scale destruction? Valley Fair is very successful as an indoor mall, especially since we do have winter here and cool evenings. Could part of the property be opened out while some of it remains indoors?

What would be the fiscal value to the city of a shopping center vs. a "mixed use" development which is largely an office park?

Phyllis Dickstein
[redacted]

From: Michelle Marie [mailto:[redacted]
Sent: Thursday, November 12, 2015 9:35 AM
To: City of Cupertino Planning Dept.
Subject: The Hills NOP-comments

Hi,

Regarding The Hills NOP, please find my comments below. Thanks.

Michelle Dunn
[redacted]

Air Quality: will an analysis of operational AQ emissions be presented? Which BAAQMD CEQA guidelines will be used as thresholds/guidance (May 2011)?

GHG Emissions: are GHG emissions going to be quantified? Will construction GHG emissions be quantified (since CalEEMod will be run) and will operational emissions be quantified? Will GHG reduction measures be quantified? What's the approach – consistency with the city's CAP? If so, what is the approach to determine significant impacts (if the project will be XX% BAU for yr 2035/2050 w/reduction strategies? (how will "consistency with the City's CAP" be determined?) Which thresholds will be used since BAAQMD guidelines do not have any GHG emissions? (other Air Districts defer to other GHG thresholds. i.e., MBUAPCD sometimes defers to SLOAPCD GHG thresholds which has construction and operational thresholds). How will construction-related GHG emissions be analyzed – which thresholds will be used?

Non-CEQA comment but along the same lines, will there be designated space for a grocery store to further reduce trips?)

Energy: for this analysis will CEQA Appendix F, Energy Conservation, be used to frame the section and be used to create significance thresholds?

Transportation: Since the NOP is currently released and under CEQA the existing conditions at the NOP release is the baseline, how will the EIR address cumulative traffic impacts of the Hills @ Vallco with relation to Apple's new campus (and the anticipated significant impacts related to traffic)? What additional mitigation measures (I assume the traffic impacts will not mitigatable to LTS when looking at Cumulative + project scenario.

Public Services: in regards to the new school upgrades, is this location known? What other improvements will be done as a result of the development? will additional fire/police services be necessary to provide for the additional residential uses and/or for school upgrades?

Utilities/Services Systems: Although not a CEQA issue, who will shoulder the cost of potential additional utilities/service system upgrades to meet the needs of the project?

Cumulative: what level of detail will be provided for the Cumulative analysis regarding regional impacts (AQ, GHG, Transportation)?

Will a benefit analysis of this development be prepared (re: GHG benefit of the mixed use/green roof, transportation hub, economic/fiscal, etc.)?

Will there be an Urban Decay section in the EIR pursuant to Section 15131(a) and per Attachment B – Contract Amendment 1 (David Powers & Assoc. contract)? It's not mentioned in the NOP.

It seems the Applicant is providing most/all of the supporting technical studies. Who is preparing these studies? Will peer-review comments be incorporated into the Applicant-prepared studies? What is the QA/QC process to ensure this is completed?

From: sean devaney [mailto:[redacted]]
Sent: Thursday, November 12, 2015 10:10 AM
To: City of Cupertino Planning Dept.
Subject: The Hills at Vallco

RE: The Hills at Vallco

I am really concerned about the current plans to redevelop Vallco along with the building of the new Apple campus. As the plans for Vallco are currently drawn up it appears that there is not enough housing to go along with all the new office space. I believe that without more housing pressure will be put on our already tight housing market driving up rents.

An additional concern is that our already bad traffic will become much worse than it is now. I fear Homestead, Wolf and Stevens Creek will become gridlocked.

In summery I believe the Hills at Vallco needs twice as much housing than is now planned, less office space and a plan to ameliorate traffic.

Thank you,

Sean Devaney
Santa Clara,CA

From: Ping Ding [mailto[redacted]
Sent: Thursday, November 12, 2015 1:59 PM
To: City of Cupertino Planning Dept.; Piu Ghosh
Subject: Vallco Mall

Dear Council Staff,

This letter is regarding the rezoning Vallco for the proposed Hills at Vallco Mall location. Before I present my concerns on environment, I would like to invite council members to visit either Blanany Ave, Steven Creek Blvd, De Anza Blvd, or Wolfe Rd during traffic hour. Then, I believe council members can understand our pain.

The 2M sf of office build proposed for The Hills at Vallco will increase the total number of employees who work in Cupertino and commute from other cities to over 47,000, nearly doubling the population of Cupertino every work day and making Cupertino's growth imbalance one of the primary causes of traffic congestion, transportation infrastructure cost and air pollution in the Bay Area. The exhaust from these commuter's vehicles alone will produce 700 tons of CO2 greenhouse gas daily. 20,000 new commute vehicles will converge on Wolfe Rd. from Apple Campus 2 and the Hills at Vallco office space alone. The Hwy 280 interchange at Wolfe even when doubled in ramp lanes will only be capable of handling 1400 to 3600 of these vehicles per hour during commute hours, meaning the vast majority of the new commute traffic will be directed into the neighborhoods of Cupertino and Sunnyvale. The severe nature of this is owing to the unnecessary office build at the Hills at Vallco. Adjusting the General Plan to accommodate the Hills office build and its 10,000 new office jobs without a counter-balancing increase in housing exposes Cupertino to the same court mandated job-housing balance imposed on the City of San Jose's General Plan Amendment this year, where the court mandated one home for each office space job created. Given the enormous office build at Apple Campus 2, any mixed use revitalization of Vallco should be retail-residential only not retail-office and be intented to housing Cupertino-based employees, particularly at Apple Campus 2, to reduce traffic congestion in the city.

The proposed Empire State Building equivalent OFFICE SPACE FOR THE HILLS AT VALLCO WILL LIKELY ADD 10,000 OR MORE COMMUTE VEHICLES TO WOLFE RD. This is based on the Silicon Valley standard 200 sf (square feet) and one commute vehicle per employee. The Empire State Building (2.1M sf) is the second largest office building in the U.S. following the Pentagon. It houses 1000 businesses collectively employing 23,000 workers1.

To visualize the traffic impact, note that 10,000 commute vehicles parked in two lanes of Hwy 280 with 5 feet gridlock spacing extends 20 miles on its own (one car each lane every 21 feet), the distance between Wolfe Rd. and Crystal Springs Reservoir. Add another 10,000 commute vehicles from the adjacent new Apple Campus 2 and the two-lane congestion doubles to 40 miles, the distance from Wolfe Rd. to San Francisco. THIS 40 MILES IN TWO LANES OF NEW COMMUTER VEHICLES WILL ENTER AND DEPART THE CITY OF CUPERTINO AT WOLFE RD. DURING COMMUTE HOURS EVERY WORK DAY, ABHORRENTLY ADDING TO THE TRAFFIC CONGESTION THAT ALREADY EXISTS.

The Hwy 280 interchange at Wolfe Rd. is woefully incapable of handling the added commuters, even if onramps are doubled from one to two lanes. The State of California sets its metering lights to allow 350-900 vehicles per hour to enter a freeway per onramp lane2. The rate depends on freeway traffic congestion. Assuming the state expands the onramps in each direction to two lanes, the Wolfe Rd. interchange will only be capable of releasing 1400 to 3600 vehicles per hour onto Hwy 280 when metering lights are on. Apple Campus 2 will need all of this to handle its 10,000 vehicles over the 4 – 7 pm commute period, excluding all other existing traffic and eventual new traffic from Main Street and Vallco retail. ADDING 10,000 COMMUTE VEHICLES FROM THE PROPOSED HILLS AT VALLCO OFFICE SPACE WILL REQUIRE 5.5 – 14 HOURS TO VACATE THE PARKING LOTS OF JUST THE APPLE CAMPUS 2 AND HILLS AT VALLCO OFFICES ONTO THE FREEWAY ALONE DEPENDING ON METERING. Obviously, this isn't going to happen. THE BULK OF THE 40 MILES OF TWO-LANE NEW COMMUTE VEHICLES WILL BE DISTRIBUTED THROUGH THE STREETS OF CUPERTINO AND SUNNYVALE, CONSUMING AND GRIDLOCKING EVERY NEIGHBORHOOD THROUGHWAY AS COMMUTERS SEEK FASTEST COMMUTE ROUTES. The increased congestion on Stevens Creek Blvd., De Anza Blvd. and Homestead Rd. in concert with the doubling of traffic flow entering the 280 onramp lanes at Wolfe Rd. will certainly back southbound Hwy 280 traffic from the current backup point near the Hwy 85 interchange into Los Altos Hills on the southbound home commute. THIS WILL MAKE FOOTHILL EXPRESSWAY THE NEW LOGICAL FIRST FREEWAY RELIEF POINT OFF-RAMP FOR SARATOGA, LOS GATOS AND CAMPBELL COMMUTERS, as the currently free right-hand exit-only lane leading to De Anza Blvd on 280, will be fully immersed in the extended 280 congestion zone. THIS WILL CONGEST FOR THE FIRST TIME STEVENS CANYON RD. AND THROUGH STREETS SUCH AS MCCLELLAN RD, BUBB RD., LINDA VISTA DR., HYANNISPORT DR., SANTA TERESA AVE, WILKENSON AVE, COLUMBUS AVE, TERRACE DR., REGNART RD., MONROVIA AND BYRNE AVE IN THE WEST OF BUBB NEIGHBORHOOD.

BY VIRTUALLY ANY STATE OR REGIONAL ENVIRONMENTAL METRIC, THE CITY OF CUPERTINO SHOULD NOT BE AUTHORIZING ANY REZONE TO OFFICE SPACE, NOW OR INTO THE FORESEEABLE FUTURE. THE COMPLETION OF APPLE'S CAMPUS 2 WILL PUT CUPERTINO'S JOBS-HOUSING RATIO COMPLETELY OUT OF BALANCE. Of the 31,800 people employed in Cupertino only 5100 live here3, meaning 84% OF CUPERTINO'S WORKFORCE, 26,700 EMPLOYEES, COMMUTE HERE EVERY WORK DAY FROM OTHER CITIES. IN CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) AND ABAG TERMS, CUPERTINO'S GROWTH IMBALANCE IN OFFICE DEVELOPMENT IS A MAJOR CAUSE OF THE COUNTY'S TRAFFIC CONGESTION, TRANSPORTATION INFRASTRUCTURE COSTS AND AIR POLLUTION. With the projected growth of 14,600 Apple employees AT THE COMPLETION OF CAMPUS 2, CUPERTINO JOBS GROWTH WILL SOAR TO NEARLY 46% OVER A 2-3 YEAR PERIOD DURING A PROTRACTED PERIOD WHEN CUPERTINO HOUSING IS GROWING ONLY 1.4% ANNUALLY3. Using the same statistics Cupertino-based employees commuting from other cities at that time will reach at least 39,000.

THE PROPOSED OFFICE SPACE AT THE HILLS AT VALLCO IS EQUIVALENT TO NEARLY A QUARTER OF ALL OF THE OFFICE SPACE IN THE ENTIRETY OF DOWNTOWN SAN JOSE4. If the 2M sf Hills At Vallco office space is approved and using the 84% statistic, THE NUMBER OF CUPERTINO-BASED EMPLOYEES FROM EXISTING, APPLE CAMPUS 2 AND HILLS AT VALLCO OFFICES COMMUTING FROM OTHER CITIES INTO CUPERTINO EACH WORK DAY WOULD BE EXPECTED TO EXCEED 47,000, A FLAGRANT CEQA AND ABAG IMBALANCE. IF WE PARKED THAT NUMBER OF VEHICLES ON HWY 280 IN TWO LANES, AS IF THOSE COMMUTING FROM OTHER CITIES WERE WAITING AT A GATE TO ENTER

CUPERTINO EACH MORNING, THE VEHICLE BACK-UP WOULD EXTEND 94 MILES, THE DISTANCE FROM WOLFE RD. TO ROUGHLY SANTA ROSA! Assuming an average roundtrip commute of 25 miles and a standard 1.22 lbs CO2 emissions per mile5, THE TOTAL CO2 EMISSIONS FROM THOSE CUPERTINO-BASED EMPLOYEES COMMUTING FROM OTHER CITIES WILL BE OVER 700 TONS DAILY, 150 TONS DUE TO THE APPROVAL OF THE HILLS OFFICE SPACE ALONE.

The City of Cupertino cannot afford to ignore the environmental impact and job-housing imbalance issues incurred in the community and region by its General Plan and its development projects. In April of this year, a CEQA suit by the California Clean Energy Committee against the City of San Jose successfully over-turned its General Plan for failing to address the jobs-housing imbalance of its planned office space development. THE COURT FAULTED SAN JOSE FOR NOT PLANNING ENOUGH HOUSING TO ACCOMMODATE THE JOBS CREATED BY ITS GENERAL PLAN, PUSHING HOUSING AND TRAFFIC INTO OTHER COMMUNITIES TO ACCOMMODATE THOSE JOBS. THE COURT ORDERED SAN JOSE TO INCREASE ITS HOUSING UNIT ALLOCATION BY THE ENTIRE JOBS-HOUSING IMBALANCE SHORTFALL (109,000 HOMES) AND TO PAY THE ENTIRETY OF THE $300,000 SUIT LEGAL COSTS6,7. The proposed Hills At Vallco project and accommodating Cupertino General Plan Amendment exposes Cupertino to the same jeopardy. The city of Cupertino, its schools, infrastructure and lack of available land cannot accommodate the housing needed for the jobs that will be created by the Hills at Vallco, let alone Apple Campus 2. Environmental advocacy groups, such as the California Clean Energy Committee, make it their business to discover and force city jobs-housing balance to minimize regional traffic and pollution. It is inconceivable that the highly publicized and massive office build of the Apple Spaceship campus and The Hills At Vallco proposal / General Plan Amendment are not on the radar screen of these advocacy groups.

Please listen to the cupertino neighbor's voice! Please save our home! Please protect our health from uncontrolled traffic and pollution!

Regards,

Ping Ding

From: Jason Holder [mailto[redacted]
Sent: Thursday, November 12, 2015 3:09 PM
To: City of Cupertino Planning Dept.
Cc: Liang C; Peggy Griffin; Stuart Flashman
Subject: DPEIR for Vallco Specific Plan and The Hills Project: Better Cupertino NOP Comment Letter

Dear Ms. Ghosh,

Please find the attached comment letter concerning the scope of environmental review for the above referenced Draft Program EIR, submitted on behalf of Better Cupertino.

Thank you,

--
Jason W. Holder
Holder Law Group

Attached as a PDF Document…

Holder Law Group holderecolaw.com
339 15th Street, Suite 202
Oakland, CA 94612
(510) 338-3759
jason@holderecolaw.com

November 12, 2015

Via U.S. Mail and Email

City of Cupertino, Community Development Department
Attention: Piu Ghosh, Senior Planner
10300 Torre Avenue
Cupertino, CA 95014
Email: planning@cupertino.org

Subject: Notice of Preparation – DEIR for Vallco Shopping District Specific Plan and The Hills at Vallco Project

Dear Ms. Ghosh:

On behalf of Better Cupertino, an unincorporated association of concerned residents of the City of Cupertino ("City"), this letter provides preliminary comments on the City's Notice of Preparation ("NOP") of a draft program environmental impact report ("DEIR") for the Vallco Shopping District Specific Plan and The Hills at Vallco (collectively, the "Project").1

The proposed Project is located the intersections of N. Wolfe Road and Stevens Creek Boulevard and North Wolfe Road and Vallco Parkway. The Project would encompass approximately 58-acres. The Vallco Shopping Mall currently occupies the Project site.

The Project includes two components: the proposed Vallco Shopping District Specific Plan and The Hills at Vallco project. The NOP indicates that the Specific Plan may include the maximum amount of development authorized in the current General Plan. This level of development includes "a maximum of 1.2 million square feet of commercial uses (minimum 600,000 square feet of retail uses with a maximum of 30% of entertainment uses), 2.0 million square feet of office uses, 339 hotel rooms, and 389 residential dwelling units." While the NOP states that The Hills at Vallco project would implement the Specific Plan, it proposes 800 residential units (i.e., 411 more units than currently allowed under the General Plan). The Hills at Vallco project, as proposed, also includes "a 30-acre green roof with public and private open space and recreational areas, two town squares, ancillary uses/amenities for the proposed residential and office uses, a transit center, a central plant, and parking facilities (including underground,

[1] These comments are based upon the limited information concerning the proposed Project provided in the NOP. Better Cupertino representatives may supplement these comments orally at scoping meetings and in follow-up written comments when additional information concerning the proposed Project becomes available.

structured, and surface parking)." The Hills at Vallco project may also include certain off-site improvements.

According to the NOP, the Project has the potential to cause a number of significant short-term, long-term and cumulative environmental impacts. The City has determined that an EIR is required.

1. <u>The DEIR must adequately analyze the Project's potentially significant impacts to City transportation, recreation, and school facilities, consider secondary impacts, and analyze a reasonable range of Project alternatives.</u>

The Draft Program EIR must include thorough analysis of the following potentially significant environmental impacts that could affect the City and its residents:

1) Impacts of conversion of non-residential development intensity to residential uses;[2]
2) Impacts to water supplies caused by the Project directly, as well as cumulative impacts to water supplies caused by this Project together with other past, present, and probable future projects;
3) Weekday and peak traffic impacts on all surrounding roads and intersections;[3]
4) Weekend and off-peak traffic impacts on Stevens Creek Boulevard and North Wolfe Road and impacts on recreation facilities including City parks as a result of additional residential, commercial, and retail uses;
5) Secondary impacts caused by increased traffic, including air quality impacts and increased greenhouse gas (GHG) emissions;
6) Impacts to schools and other public services caused by the influx of new residents, including but not limited to:

- The direct impacts on school facilities that this Project will cause,[4]

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[2] Because the Project proposes more residential units than authorized in the General Plan, the DEIR must analyze the impacts of this additional intensity. Residential uses have different impacts than nonresidential uses. For example, the traffic intensity and patterns differ with residential uses and residential uses increase demand for schools and recreational facilities.
[3] Please note: because the Governor's Office of Planning and Research has not finalized its updated CEQA Guidelines implementing SB 743, the weekend and weekday traffic impact analyses must analyze Project-related traffic impacts using both the standard Level of Service and the modern Vehicle Miles Travelled methodologies.
[4] For example, because Collins Elementary School and Cupertino High School are within ¼ mile of the Project site, CEQA § 21151.4 applies and the DEIR must analyze the effects Project-related air emissions may have on students at those schools. (*See also* CEQA Guidelines, § 15186.)

- The potential to open the wall separating the Project site from the neighboring community (at (Merritt Drive, Amhurst Drive, or Wheaton Drive) to provide a "safe route to school," and
- Cumulative impacts to schools caused by this Project in combination with other projects in the Sunnyvale, Santa Clara, San Jose area, including traffic impacts caused by assignment to overflow schools;[5]

7) Construction-period and operational impacts to the large double row of Ash trees along Stevens Creek Blvd. and along Wolfe Road and any other protected trees;[6]
8) Public service impacts to neighboring residents, including any reduced police, fire, or ambulance services or increased response times;[7]
9) Seismic-related hazards associated with the proposed 30-acre green roof;
10) Aesthetic and visual impacts to neighboring communities, including but not limited to:

    - Obstructed views and increased shadows caused by the Project's tall buildings, and
    - Nighttime light pollution;

11) Loss of solar access to areas beneath green roof and the alternative of using Project roofs for solar energy generation;
12) The Project's direct and indirect secondary effects associated with the increase in traffic and recreation impacts to the City including but not limited to increased demand for limited parking, increased demand for police, fire and other City services, and the related strains on the City's limited facilities and resources;
13) Impacts stemming from additional office development and displaced retail uses, including, but not limited to:

    - Growth-inducing impacts,

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[5] The City must consult with Cupertino schools (CUSD and FUHSD) when developing the analysis of school impacts. (*See* PRC, §§ 21083.9(b), 21153; *see also* CEQA Guidelines, 14 CCR §§ 15041(b), 15082(c), 15086(c)-(d), 15096.)
[6] Please include analysis of the disturbance to tree roots during construction, as well as the loss of sunlight and any reductions in percolating water after the Project is built.

[7] For example, the Project may increase emergency response times by creating a barrier between residents of west Cupertino and the Kaiser Hospital facility at Lawrence Expressway and Homestead Road.

- Displacement of lower income residents (and increased traffic caused by such displacement and the associated increase in commuting),
- Increased travel to other more distant retail locations,
- Increased traffic to freeways and local streets caused by large buses ferrying employees to new office developments,
- and potential inconsistencies with the goals of SB 375;

14) Cumulative weekday and weekend traffic impacts and cumulative direct and secondary impacts to parking, police, fire and other City services as a result of past, proposed, and approved uses within the City; and
15) Consideration of a reasonable range of Project alternatives, including:

- A revitalized mall that includes minimal or no physical changes to the existing Vallco Shopping Mall but includes incentives and other strategies to maximize tenant occupancy,
- a reduced development alternative that includes reduced office and residential use development,
- a balanced growth alternative that would attempt to match the proposed new residential development in both amount and housing cost (i.e., market rate,
- moderate income, low income, very low income) to the expected amount and demographics of the additional employment that would be associated with the new commercial development, and
- A conventional layout alternative that would comply with existing City standards for development and open space and would use rooftop areas for solar energy generation.

Please include all technical support for the above analyses in appendices to the DEIR.

2. Better Cupertino Requests Notice of All Future City Actions Concerning the Proposed Project.

Pursuant to Public Resources Code, section 21092.2, we also request notice of all stages of environmental review for the Project and any and all actions that the City proposes to take on this Project. Please send any and all notices via email to the following persons:

a) The undersigned, at jason@holderecolaw.com;
b) Co-counsel Stu Flashman at stu@stuflash.com;
c) Client representative Liang-Fang Chao and [redacted]; and
d) Client representative Peggy Griffin at [redacted].

Additionally, please send paper copies of notice documents solely to the undersigned.

* * *

If you have any questions concerning these comments, you can reach me at the phone number and email address provided in the above letterhead.

Sincerely,
Jason W. Holder

cc: (via email only)
Stu Flashman ([redacted])
Liang-Fang Chao ([redacted])
Peggy Griffin [redacted])

From: David Ranney [mailto:[redacted]]
Sent: Saturday, November 14, 2015 9:32 AM
To: City of Cupertino Planning Dept.
Subject: Comments on Vallco

Dear Sirs:

It is my understanding that this is the address to send any comments residents may have on the proposed Vallco development.

My primary concern is the sudden influx of students into Cupertino High School from the planned 800 residential units. Cupertino High is already a crowded school, and I worry that adding many more students will hurt its effectiveness.

In past projects developers claimed that condos didn't produce as many students per household as houses. However, Cupertino is a highly sought after school district, so I think that assessment is inaccurate in this case.

Property values in Cupertino hinge on the quality of the schools. If word gets out that Cupertino schools are overcrowded I think everyone will suffer for it.

In case you need the information, I have lived in Cupertino for 15 years. My address is 19841 La Mar Drive. Feel free to respond if you need any further information.

--
- Dave

From: Louie Alicea [mailto[redacted]t]
Sent: Saturday, November 14, 2015 7:08 PM
To: City of Cupertino Planning Dept.,[redacted]
Subject: Fw: Better Cupertino WG

On Saturday, November 14, 2015 4:34 PM, Louie Alicea [redacted] wrote:

To: City of Cupertino Planning Dept.

My family have been long time residents of Cupertino since 1984.

We do not want to add 7 story buildings with family homes at the Vallco site. **We want our privacy.**

We do not want the wall opened for public access to our neighborhood.

Our schools are maxed out already.

Vehicle traffic has become very congested in Cupertino the past few years, and this is going to become overwhelming when the new Apple complex is completed.

Public Safety is unable to keep up with controlling frequent speeders and violations throughout the city. Drivers are constantly running Red Lights/Stop Signs on a regular basis.
Bicycle riders from Apple do not obey the laws and guidelines when riding through the neighborhoods already.

We don't see a plan for Senior living, which needs to be addressed.

We hope you can come up with a plan that we can all live with. We are tired of hearing the construction that has been going on in that area for over 10 years.

By the way, We are still waiting for our street on Merritt Drive to be finally repaired and paved.

Regards, Louie Alicea

From: Carl Hampe [mailto[redacted]]
Sent: Sunday, November 15, 2015 7:44 AM
To: City Council; City of Cupertino Planning Dept.
Subject: Comments on the Vallco EIR

Dear City Council members,

We live on the second street over from Vallco shopping center on Denison Avenue, and we're very concerned about the impacts that the proposed Sand Hill development plan might have on our quality of life here. We have been residents here since 1989, and have seen the negative impact that recent development projects in Cupertino have had on our local environment. We have lost most of the confidence that we had in our city government due to it's partiality to supporting greedy developers over the needs and rights of its citizens.

The recent negative impact consists of slowed traffic on the streets we most frequently use, strains on our school system's ability to serve our children's needs, increased air pollution from additional traffic, and increased crime of all kinds in our city. And this has all happened during a time when economics has made it more difficult for our city and county service providers to deal with the additional growth.

We haven't yet seen the impact's that Apple's new complex will have to our immediate area, and yet the city council is trying to push through a perverted Vallco "revitalization" project right next to the Apple complex without sufficient community input that will entirely change the nature of our neighborhood.

We are primarily concerned about the following potential impacts of Sand Hill's plan for the development of the Vallco property:

1. Additional traffic congestion in our area 2. Additional air and noise pollution 3. Additional crime 4. Loss of privacy due to our proximity to proposed tall buildings 5. Reduced availability of close-by shopping 6. Reduced effectiveness of our schools

One other particular concern that we have is that with all of the additional people moving through this part of the city that there will be pressure on the city to open up additional thoroughfares coming right through our neighborhood to reduce traffic flow on Stevens Creek Blvd.
This would greatly increase our local traffic congestion, air and noise pollution, and crime. We ask the council to ensure that this will not be done.

We feel less safe and happy than we did when we first moved here. We watch our neighbors move out of Cupertino because of the expected impacts. We used to think that this was one of the best communities in the Bay Area, but we now see it becoming more and more like the less desirable places. We feel that our quality of life in this community is becoming worse by the day.

We hope that you will listen to our plea for a more sane and safe plan for Cupertino city development.

Sincerely,

Carl and Sharon Hampe

From: Liang C [redacted]
Sent: Sunday, November 15, 2015 9:23 AM
To: City of Cupertino Planning Dept.
Subject: Comment on Vallco EIR - impact on civic services should be based on real data

RE: Comment for Vallco EIR

Please study the impacts on civic services, such as library, police, fire station, medical emergency services based on real data.

Please study the impact on medical services, emergency and otherwise. The non-resident population would increase the demand for medical services since medical offices are open mostly only during working hours.

Even though the city doesn't provide any service for ambulances, the response time of an ambulance often means life or death even by just one second. Please study the response time of emergency vehicles to various points in Cupertino since traffic congestion could delay an emergecy vehicle to reach a residence on the other side of the town.

Please study not only facility and personnel needs, but also the impact on level of service. Especially, the response time for medical, police, fire emergencies. And the response time during peak hours in average and also worse case scenarios. Any delay in response time could mean life or death for both the resident and non-resident population. Please study the realistic impact supported by real data.

Please please study the impacts of non-resident population on these civic services since the employees do spend more than 8 hours a way in Cupertino and they need the parks and recreation services, police, fire and medical services as any other resident.

Please include cummulative impact, including ongoing projects like Apple Campus 2 and Main Street, and also proposed projects, like Marina, Hamptons, Oaks.

Please provide real data and statistics to support your claim or conclusion, instead of any undocumented personal communication, as it has been done for the EIR of GPA.
If any personal communication is documented through email, it should be provided in the appendix for reference.
e.g. Personal communications between Ricky Caperton (PlaceWorks) and Derek Wolfgram, Deputy County Librarian for Community Libraries, April 4, 2014.)
e.g. Personal communication between Ricky Caperton (PlaceWorks) and Cheryl Roth of the Santa Clara County Fire Department on April
24, 2014.
e.g. Personal communications between Ricky Caperton (PlaceWorks) and Captain Ken Binder, Division Commander, West Valley Patrol,
April 11, 2014

Please do not make assumption that employees generated do not add any impact without providing sufficient data to back it up, such as the following:

e.g. EIR of GPA states: "Although the proposed Project would result in an increase in employees throughout Cupertino as well, only residents within Santa Clara County can apply for a library card; therefore, the following analysis considers expected population increases, and not employment generation as a result of implementation of the proposed Project."

Most of the employees in Cupertino are probably Santa Clara County residents also. If the EIR would claim that most residents are NOT Santa Clara County residents, statistics should be given to support that claim. In fact, even non-resident of Santa Clara County can hold a library card, according to an official from Santa Clara County Library:
"All public libraries in Santa Clara County allow free reciprocal borrowing regardless of address. Currently 45,312 non-resident have a library card from our system. This is 18% of our total library cards.

In the EIR for GPA, the impact level for fire station and police are also derived without any data. With 30% increase in residence population and 50% increase in non-residence employee population, the EIR concludes that there will be no additional staffing needs for fire station or police. But the conclusions were only based on "personal communication" with no document and no data to support it.

For example, based on personal communications, the EIR concludes that there is no need to expansion for police for 30% increase in residence population and 50% increase in non-residence employee population.
e.g. "However, the West Valley Patrol Division has confirmed that future development under the General Plan would not result in the need for expansion or addition of facilities." (Personal communications between Ricky Caperton (PlaceWorks) and Captain Ken Binder, Division Commander, West Valley Patrol,
April 11, 2014.)

If there is no need to expand, a written letter should be provided so that whoever makes the statement would be responsible for the claim. And attempt should be made to estimate the realistic impact of population increase and to explain using data why there will be no significant impact.

Thank you.
Liang Chao

From: Ruiwei Wang [mailto:[redacted]
Sent: Sunday, November 15, 2015 12:01 PM
To: City of Cupertino Planning Dept.
Subject: the Hills at Vallco mall (Comments from R Wang)

Dear Cupertino city planning,

My name is Ruiwei Wang, I have lived in Cupertino for over five years at following address: [redacted]

I am concerned according to the initial design of the hill, about the following factors:

1. My house is only 400 feet away from the 'Wall' that separate Vallco mall and my neighborhood. The impact on aesthetic view and privacy will be damaged by the proposed 'building 6' if the building it over 35 feet in heights. My house is one level house, We can be seen and lost our privacy.

2. Pollution from commercial building on our single family houses: Not only from the dirt and chemicals produced during the construction, but also turning on the light all day/night will pollute the air, and we are only 500 feet from the wall, and about 1000 feet from the construction site. Our lung will be greatly damaged by the air pollution.

3. Invasion of privacy on the maintenance worker on the rooftop park during the day time into the direction on our property.

4. Ability to see the moon: before The Hills at Vallco, we can see the moon coming up at 30 degree angle, but suppose that the building 6 is 6 stories, we can only see the moon coming up at 65 degree or further.

We have purchased the home based on the fact of a low occupancy, clean air environment, and have been paying property tax all the years. we can't let the new planning destroy, damage the environment of the neighborhood.

Please consider our concerns and satisfaction about the new planned The Hill. we wish to see a reasonable, more environment friendly design.

thanks

Ruiwei Wang
[redacted]

From: Liang C [mailto:[redacted]
Sent: Sunday, November 15, 2015 12:58 PM
To: City of Cupertino Planning Dept.
Subject: Comment on Vallco EIR - impact on housing demand

RE: Comment on Vallco EIR

Please study the impact on the demand on housing market and rental price, since this will determine where the new workers will live and how long they will have to commute in and how congested the highway will be.

Please study where the new workers will reside in since there is not much available housing units in Cupertino or surrounding cities.
Please include in your study all ongoing office construction within at least 20 miles radius since all of workers in these buildings will add to the demand on housing and the demand on transportation for commuting. And please include all proposed office construction also.

Please study the impact on rental prices from studio to 1 bedroom to two bedrooms. The rental rate is already more than $4,000 for 2 bedroom apartments. Cupertino has about 32,000 workers. The addition of 14,000 workers from Apple Campus 2 and 1000 from Main Street plus 10,000 from Vallco will essentially increase the working population by 50%. Thus, the demand on rental partment might increase by 50% also. How many of the current residents will be displaced when the rent goes even higher?

Please use realistic numbers of 2010 or later to estimate the number of employees that can be accommodated in a given office space. The space per employee maybe 300 square feet 20 years ago. It has become 200 square feet 10 years ago. And nowadays the space per employee has become 150 square feet per employee. Please use a realistic standard.

In 2010, ABAG estimates an increase of 4,421 housing units by 2040. ABAG also estimates that the office space will increase by 43,300 square feet per year.

However, Cupertino will have an addition of 3.5 million square feet of new office space opening in 2017 from Apple Campus 2 alone.
Main Street already added 260,000 square feet of office space, just opened in 2014.
The Hills at Vallco will add another 2 million square feet of new office space.

That's 5.76 million square feet of additional new office space on top of the current housing demand and commute flow.
(Note: Apple Campus 2 may have only added 750,000 square feet in terms of office allocation in Cupertino's General Plan. But the fact remains that the 3.5 million square feet of new office will be added on top of the current housing demand and commute flow.)

3,500,000 s.f./43,300 s.f. per year= 80.8 years
5,760,000s.f./ 43,300 s.f. per year = 133 years

The office space added to Apple Campus 2 is equivalent to 80.8 years of office according to ABAG's estimation of 43,400 s.f. per year of office growth.
The office space added from Apple Campus 2, Main Street and Vallco will be equivalent to 133 years of office growth according to ABAG's estimation of 43,400 s.f. per year of office growth.

How many housing units will be required by ABAG to compensate for 133 years of office growth by the next Housing Element cycle in 2023?

133 years/25 years = 5.32.
Would we be required to build 5.32 times more housing units then?
If that's an over estimate, please provide a more realistic estimate based on real data.

Thanks.
Liang Chao

From: Edward Ford [redacted]
Date: November 15, 2015 at 4:44:59 PM PST
To: "PiuG@cupertino.org<mailto:PiuG@cupertino.org>" <PiuG@cupertino.org<mailto:PiuG@cupertino.org>>
Subject: Vallco Eir Public Comment
Reply-To: Edward Ford <[redacted]

Here attached are our comments. Will also do a hand delivery to City Hall.
Ed and Suzanne Ford

Attached as a Word document…

Edward Ford

[redacted]

[redacted]

13 November 2015

City of Cupertino, Community Development Department

Vallco EIR comments

Attn: Piu Ghosh

1. This proposed development is so massive that it needs **much** more truthful and accurate information than has been in the deluge of post cards and ads from Sand Hill Development (SHD). It needs to be broken down in details at a series of public meetings to truthfully understand it and how it is within the Cities General Plan plus how it will affect the entire area. The elephant is too big to swallow and the PR/mail from SHD hides the real development impact on our city. Schedule open meetings.

2. Cupertino has multiple developments in process, planned and botched. The in process and planned are Main Street, Apple, The Hills and the Oak's plus what others? **Let us see them all.** Infrastructures all need to be deeply examined and clearly defined. Where is the water and sewage going to come from and go to? Have the agencies that provide water, sewage, gas and electric, fire, safety, heath care etc. been contacted for impact? Will they need to upgrade their capacities? Who will pay for those upgrades? If the answer is the taxpayer then you need to be upfront. These are serious environmental concerns that most of us

never look at because they are not visible or surface as explosions in San Bruno or water leaks that collapse streets with loss of lives and assets in big $$'s to individuals.

3. SHD was/ is involved with the botched Sunnyvale development – correct? Are they going to put a **really** high insurance policy in place to cover this? We in Cupertino do not need an endless path of Vallco failed developments into taxpayers picking up the bill. If they fail we will have a bankrupt blight that in the end we taxpayers must fix. The EIR concern is that SHD does not have a positive track record for success. Who will pay for safety in this area though out? Are new fire stations and Sheriff offices to be built in near /intimate proximity to all of the major projects? Called and visited Sheriff and they told me that they would need more $$ =understaffed. Same story at fire stations. Suggest a more detailed analysis by City of Cupertino and when you do that please do not say every thing is OK. Document and be able to substantiate.

4. Traffic analyses: this is beyond belief i.e. where is that analysis???? If we have Apple with 20,000 or more employees who as yet have not developed a "beam me up and down Scotty" system, 12,000 vehicle trips per day to Main Street, 68,600 vehicle trips per day for The Hills and whatever for the Oak's. Add in all the apartments from Hampton and those opposite Penney's and the number is way greater than 100,000. If these calculations are wrong show what you have in detail. Where are the roads, gas stations, charging stations, buses, and maintenance (cleaning floors and toilets) going to come from? Buses from Gilroy and Morgan Hill for all the workers? They cannot afford to live here so they must add more transit trips in and out. Add these in and you approach 150,000. Provide us with an unbiased analysis that can stand litmus test of truth and accuracy i.e. no JD Powers reports of what you want to present.

5. My wife and children plus eleven grandchildren have been in or near Cupertino for almost 50 years. We have had the privilege to travel to many parts of the world. The developed countries and even undeveloped countries have better transit systems then we. My wife walked from our home up to Stevens Creek to catch a bus to San Jose State to complete a degree in Political Science. That is more than 20 years ago. Nothing has really changed. There is limited public transit that would get us to grocery, clothing, bolts and nut for home repairs. Is VTA or whomever involved in unplugging the sewer of traffic that all these projects/$$$ for developers will create? Is Caltrans/State of CA watching and saying they have stacks of $$'s to fix all road, traffic lights etc.? Is this create a problem and ask for taxpayer bonds to fix? If so let us see all reports.

6. City of Cupertino has not fixed any traffic/safety issues on our little street so what confidence do all of us on Wilkinson Ave have that you could fix traffic /safety for these

massive projects? You are the Lead Agency with no check and balance by a non-biased independent review board that is not cherry picked. **Do not do a slick Willey like FUHSD**. Transparency needs to be on the table now.

7. This plan shows a total decline in ability to have access to retail shopping. There will be no anchor stores. Sears, Macy's and Penny's will be demolished. All the mall shop owners like Edward's Shoe's, who has supplied our children and grandchildren for many years are now evicted. Where are we to go for quality products? It is not on line shopping. Driving to Stanford or Valley Fair is really not pleasant so we do not do that. Kohl's and Target are not the answer to quality clothing unless you want us to dumb down and buy stuff that does not fit. Point is that these plans affect our environment with developments poorly planned at the community's expense. These plans have a negative effect on our lives. We will have more difficulty to get to heath care. We use Kaiser and they are drowning with traffic. If you needed an ambulance they could not get here during school arrival departure hours. So what? Die and be happy that SHD made$$$. Suggest a time out to see a total vision of community that is balanced and not driven by developer greed. Please tell us how you are going to address all of these concerns.

Sincerely, Edward and Suzanne Ford

From: Liang C [mailto:[redacted]
Sent: Sunday, November 15, 2015 5:42 PM
To: City of Cupertino Planning Dept.
Subject: Comment on Vallco EIR - impact on civic services - more

RE: Comment on Vallco EIR

Many resident feel that the increase in burglary rate and even heard about a case with gunshot last week.
Please study the number of incidents of various types in Cupertino and surrounding cities.
Please study the impact of the added population and especially non-resident population on the police incident rates.
This project will put Cupertino on a path to urbanization. Please compare the crime rate of Cupertino with the crime rate of urban cities. Please also compare the investment in police force of Cupertino against that of other urban cities.

Many resident feel that traffic around schools is getting worse as the number of students attending each school increases.
Cupertino schools were designed as small neighborhood schools, but they are now double in the number of enrollment per school.
There is no funding for enough crossing guards to protect the safety of children walking or biking to school.
There is not enough police around to ensure safety around schools by warning dangerous driving behavior today.
As the traffic gets more congested, there will be more impatient parents and more accidents might happen.

Please provide data on traffic accidents in Cupertino citywide and around schools.
Please provide data on bicycles and pedestrian accidents, especially during school peak hours.
Please compare the data with other urban cities to estimate the increase as Cupertino becomes an urban city by building Vallco.

Please exam routes to school from different parts of the attendance area in CUSD and FUHSD to study the amount of extra vehicles during peak hour. Please exam traffic safety, air pollution and noise on these routes to schools.

Many residents already feel that there are not enough books in the library. Whenever one wants to borrow a book, most likely all volumes in Cupertino Library are all out on loan. One can either make a request and wait a few days; or one has to drive down to Saratoga Library or Campbell Library where most books are available on shelves.
Please evaluate the impact on the library usage by the amount of time a library patron has to wait to get book requests fulfilled. Please evaluate the amount of library books in Cupertino library stay on shelf to allow direct access by library patrons.

When no such data is available, please indicate that you cannot evaluate this aspect of the impact because of insufficient data. Please do not simply conclude that there is no significant impact on the library services when there is a large increase in residence population and worker population.

From: Liang C [mailto:[redacted]
Sent: Sunday, November 15, 2015 6:16 PM
To: City of Cupertino Planning Dept.
Subject: Comment on Vallco EIR - impact on loss of retail

RE: Comment on Vallco EIR

Please study the impact on the loss of a regional shopping center, which provide a large variety of stores of various sizes and varying categories in one place. Cupertino hasn't had a good shopping center for a long time, but it doesn't mean Cupertino doesn't need one.

GPA Retail Strategy Report shows Cupertino residents are shopping outside of Cupertino for different consumer goods and services.
Not only Cupertino residents have to drive further longer to waste gas and time, Cupertino also does not capture the sales taxes generated.

Please study the option of having a fully revitalized shopping center that can compete and even surpass Valley Fair.
Vallco has a great location and affluence demographics and at the heard of a booming Silicon Valley economy.
The only reason that Vallco hasn't done well is because it is mismanaged. Please study the option of inviting a professional shopping mall operator to revitalize Vallco.

The Macy's at Valley Fair occupies 396,000 sq ft, and Macy's Mens and Home occupies 316,000 sq ft. The entire retail space at The Hills at Vallco will be 625,000 sq.ft., which is only 87% of the space of Macy's in Valley Fair.

When visiting a large department store or a large shopping center, a family can often purchase multiple items and also dine and entertain within one trip. However, when a shopping center only has a limited selection of stores or when a department store only has a limited selection of goods, one family has to make several trips in order to fulfill their shopping needs. Families also tend to carpool when going to a large shopping center. But families would make separate trips when visiting smaller shops.

So, The Hills at Vallco only contains a reduced retail space of 625,000 sq. ft. And most of the stores will be tailored towards the worker population from Apple Campus 2 and its own office park and residents, according to Sand Hill's description. How many stores will serve the shopping needs of Cupertino residents and the surrounding cities, who are mostly working families? The loss of retail options for families' with kids should be studied.

When a regional shopping center is take away from Cupertino, Cupertino residents will have to drive further to other regional shopping centers to satisfy their needs in order to access a wider variety of goods. Cupertino residents will also have to make multiple trips to smaller shops to buy less number of items in each trip. That generates more greenhouse gas emission and more time wasted on the road and adding to the more congested traffic.

Please study the impact on additional trips generated due to the loss of access to a large regional shopping center of 1.2-million-square-foot at Vallco.

Please use realistic figures when estimating retail space available in The Hills at Vallco.
Deduct the space taken for entertainment, such as AMC, Bowling Alley, athletic clubs, and civic uses, such as innovation center, community center and transit center.
Thus, the true retail space available for shops and restaurants is only 400,000 sq. ft., which is as large as Macy's in Valley Fair (not even counting the part for Mens and Home).

Thanks.
Liang Chao

From: Peggy Griffin <g[redacted]>>
Date: November 15, 2015 at 7:16:36 PM PST
To: Piu Ghosh <PiuG@cupertino.org<mailto:PiuG@cupertino.org>>
Cc: 'Grace Schmidt' <cityclerk@cupertino.org<mailto:cityclerk@cupertino.org>>
Subject: Vallco EIR Scoping Comments - impact on Aesthetics

SUBJECT: Vallco EIR Scoping Comments – impact on aesthetics

IMPACT ON AESTHETICS

1. Currently, people can see the hills from many locations throughout the Vallco and surrounding areas. Due to the height and density of the Hills-at-Vallco project, views of the "real" hills, the sunset, the sunrise, the moonrise will be blocked. The existing Montebello Condominiums at the corner of Stevens Creek and De Anza Blvd. block the views of the hillside of homes as far away as 1/3 of a mile!

Please study the impact to all homes within at least a 1/3 mile distance surrounding this project area. This should also include homes in Sunnyvale.
Please study the impact on gardens and landscaping due to the possible loss of early morning sun or late afternoon sun.

2. Currently, the area is known and loved for the double row of Ash trees that line the sidewalks along Stevens Creek Blvd and Wolfe Roads.

Please study the impact of the potential loss of these trees. It is not the same to plant a 36" box tree! These trees are large mature trees that provide shade and a calm, relaxing atmosphere in which to walk.

3. The project proposes a huge "roof" over a large part of the area. This will prevent views of the "real" hills, the sunset, the sunrise, the moonrise from most of the locations within the project unless they climb on the "rooftop".

Please study the impact of this project on new residents, office workers and visitors.

4. There are 2 parcels at the back of the Vallco Specific Planning area, one is the site of a proposed Hyatt Hotel, the other is in the northwest corner by the Permeter Road wall and I-280. These are not owned by Sand Hill Properties but are directly and indirectly impacted by this project. The enormous height and density of the project will block any views these sites have of the hills, the sun, etc.

Please study the aesthetic impacts of this SHP project on the other properties within the specific planning area.

5. There are currently apartments and condominiums in the South Vallco Park area that will end up being towered by the proposed project. They currently have views of the hills, sunsets, sunrise, moonrise and of the trees.

Please study the impact on these units.

Sincerely,
Peggy Griffin
[redacted]

From: Peggy Griffin <[redacted]>
Date: November 15, 2015 at 7:35:39 PM PST
To: Piu Ghosh <PiuG@cupertino.org<mailto:PiuG@cupertino.org>>
Cc: 'Grace Schmidt' <cityclerk@cupertino.org<mailto:cityclerk@cupertino.org>>
Subject: Vallco EIR Scoping Comments - Impacts

SUBJECT: Vallco EIR Scoping Comments – Impacts

Many homes in our area do not have air conditioning. In the hot summer months, they rely on the wind to cool their homes. On very hot days, the afternoon breeze comes through and blows the hot air out of our homes. The height and density of this project will prevent the wind from reaching the homes that rely on it to stay cool.

Please study the impact of this project on the ability of homes to remain cool.

If homes can no longer rely on the wind to cool down their homes then they will be forced to get air conditioning which will increase energy usage and greenhouse gases.

Sincerely,
Peggy Griffin
[redacted]

From: Xiaowen Wang [mailto:[redacted]
Sent: Sunday, November 15, 2015 7:50 PM
To: City Council; City of Cupertino Planning Dept.; City Clerk; Piu Ghosh; Aarti Shrivastava
Subject: Vallco EIR comments

Dear Planning Commission and City Councils,

I am writing to you regarding the Vallco project approval process.

First, I really hope that we can compose a comprehensive and accurate EIR. I would like that you could pay special attention to the following items beyond the regular environmental evaluation.

1. The housing impact of any proposed office project. It is a well known fact now that ABAG calculates the RHNA based on employment projection which is directly linked to any office development in the city. It is extremely misleading and irresponsible to overlook the possible housing impact of office project. Technically it should easy to directly using the RHNA formula from ABAG to estimate the housing units of office project. I would like that the EIR can include such numbers in evaluate impact on schools, traffic and any other public services.

2. The traffic impact should be studied of all surrounding areas not just the road directly connected to the project. It is foreseeable that after the congestion at 280, Wolfe, De Anza and Stevens Creek, the traffic will be overflowed to the secondary road, such as Homestead, Bollinger, Blaney and Tantau. It is important to look at the impact to these secondary road and their surrounding residential neighborhood. Not only the traffic delay should be studied, the noise and air pollution should be also be considered. Moreover, notably, there are several schools on these secondary road, Collins, Eaton, Sedgwick, Lawson, Hyde and Cupertino High. The safety around these schools during rush hour should thoroughly studied.

3. The environmental impact during project phasing should be studied more carefully. The current proposal include massive destruction and rebuilding. How the project phased would have tremendous impact on the surrounding neighborhood. For example, the two level parking lot would unearth huge amount of dirt, which could cause various environmental problems.

4. One unique part of the proposed project is the big green roof. The roof should be carefully studied regarding its

- water usage
- seismic hazard
- fire hazard
- emergency service

5. The light pollution problem. The proposed project is substantial higher than the surrounding neighborhood. The reflection during the day and light during the night could be very disturbing to the residential neighborhood.

Second, other than different environmental impacts, different project scope should be studied. Such big project could be subject to changes to a lot of factors, it is important to consider different options for the project. I think that other than the current proposal, we should also consider
1. keep Vallco as a pure retail site
2. rebuild Vallco as a public service site, such as school, park or library
3. retail with 389 housing as allocated per housing element

Finally, please take time and effort to collect the data and make sure the accurate data is put in the report. As I have reported, the GPA EIR has quite some factual error. I hope such error would not appear in this report.

Please put these comments in the public record of Vallco EIR.

Sincerely,

Xiaowen Wang
Cupertino resident

From: Peggy Griffin <[redacted]>>
Date: November 15, 2015 at 8:27:24 PM PST
To: Piu Ghosh <PiuG@cupertino.org<mailto:PiuG@cupertino.org>>
Cc: 'Grace Schmidt' <cityclerk@cupertino.org<mailto:cityclerk@cupertino.org>>
Subject: Vallco EIR Scoping Comments - impacts on Air Quality

SUBJECT: Vallco EIR Scoping Comments – impacts on AIR QUALITY

When studying all the impacts of air quality, please pay special attention to areas where the young, the elderly and the sick may be located such as:

- Public schools
- Private schools
- Day cares
- Pre-schools
- Senior centers
- Residential homes used as assisted living
- Hospitals (Kaiser Hospital at Homestead and Lawrence Expressway for one)
- Urgent care facilities
- Parks and open areas where people congregate and exercise

Due to the close proximity of Vallco to Sunnyvale, Santa Clara and San Jose, the above sensitive areas should be considered regardless of the city it resides in but within a specified radius of at least 2 miles if not farther. The material from the cement plant on the far west side of Cupertino finds its way to the east side of town.

1. Vallco Shopping Mall was constructed in the early 1970's. Asbestos was one of many materials used during that time in building materials. The demolition of the existing mall will cause many of these materials to be released into the air.

Please study what materials, in addition to asbestos, will be in the structures to be demolished and their impacts on our air quality.
Please take into consideration the afternoon winds that often occur and the distance these materials can be carried throughout our city.

2. During the construction of this project, a lot of dirt and trees are going to be dug up, a lot of cement and construction materials will be brought in and used.

Please study the possible materials found in the dirt that may be released into the air as a result of the excavation and removal process.
Please study what materials will be used, how they will be applied and their impacts on our air quality during the construction process.

3. After construction, the project plans propose a huge “roof” over a large part of the area. Odors, car exhaust, “breathing fumes” from new construction materials and from decaying materials can build up under the roof.

Please study the impacts of this roof on the air quality at all levels (floors) of the project from the deepest underground level to the floor just under the roof.

4. Please study the impacts of items #1-3 on children and people with asthma.

Sincerely,
Peggy Griffin
[redacted]

From: Xiaowen Wang [mailto:[redacted]
Sent: Sunday, November 15, 2015 8:29 PM
To: City Clerk; City of Cupertino Planning Dept.; City Council; Piu Ghosh; Aarti Shrivastava
Subject: Vallco Economic Impact Report

RE: Vallco EIR Scoping Comments

Dear Planning Commission and City Councils,

I am writing to request a economic impact report on Vallco.

It is undeniable that Vallco redevelopment would have adverse impact on the environment. However, it is not a complete picture with just environment impact report. We need the following data points to comprehensively evaluate the project.

1. Tax revenue comparison between different project options. The tax revenue of the Vallco before redevelopment should serve as the base for this comparison. Also this study should include tax composition and distribution. What portion is the retail tax or property tax? In what proportion the tax revenue can be used in the city or flow into the school district?

2. City spending on different project options. What is the cost of public service provided by the city and school district such as sewer, police and fire, sanitary and school? This study should also use the current cost as the baseline.

We can only know the financial impact of the redevelopment by looking at both cost and benefit. We can then evaluate the overall benefit of any project proposal could offset the adverse impact on the environment.

Please put this request as part of public record of the Vallco EIR scoping comments.

Sincerely,

Xiaowen Wang

From: Peggy Griffin <[redacted]
Date: November 15, 2015 at 8:39:13 PM PST
To: Piu Ghosh <PiuG@cupertino.org<mailto:PiuG@cupertino.org>>
Cc: 'Grace Schmidt' <cityclerk@cupertino.org<mailto:cityclerk@cupertino.org>>
Subject: Vallco EIR Scoping Commebnts - impacts on Air Quality (more)

SUBJECT: Vallco EIR Scoping Comments – impacts on AIR QUALITY (more)

Homes along I-280 and CA-85 are constantly showered with black particles from the freeway. This material covers outside furniture, the ground, our gardens. The wind blows it into our homes to become black dust in our house. We breathe it whether we're inside or outside. As the traffic has increased over the years, this material has increased. Some say it's particles from the tires. Others say it's exhaust particles. Whatever it is, we live and breathe it everyday and it is getting worse! It cannot be healthy to breathe this stuff.

Please study the impacts of the increased traffic as a result of the 2 million square feet of office, 800 housing units, on top of all current and proposed projects in Santa Clara County on our air quality throughout the city and neighboring cities.

Please study particles from car tires and exhaust as a result of the impact of this increased traffic.

Sincerely,
Peggy Griffin
[redacted]

From: Peggy Griffin [redacted]
Date: November 15, 2015 at 9:11:39 PM PST
To: Piu Ghosh <PiuG@cupertino.org<mailto:PiuG@cupertino.org>>
Cc: 'Grace Schmidt' <cityclerk@cupertino.org<mailto:cityclerk@cupertino.org>>
Subject: Vallco EIR Scoping Comments - impacts on Biological Resources

SUBJECT: Vallco EIR Scoping Comments – impacts on Biological Resources

The large trees covering the Vallco Specific Plan area (large Ash, large evergreens) are home to large birds. Many flocks roost at night in these large trees. There are fewer and fewer large trees in this area due to the development projects. There are very few places nearby where these birds can go. When we lose birds, our insect population increases – particularly mosquitos which can lead to increased exposure to disease.

Please study the impacts of the demolition noise, disturbance of large vehicles and cranes, the excavation and construction on these birds and other animals.

Please study the impacts of displacing gophers, rats, squirrels, opossums and raccoons on the animals themselves and on the neighboring homes where they will migrate.

Sincerely,
Peggy Griffin
[redacted]

From: Peggy Griffin <[redacted]
Date: November 15, 2015 at 9:35:42 PM PST
To: Piu Ghosh <PiuG@cupertino.org<mailto:PiuG@cupertino.org>>
Cc: 'Grace Schmidt' <cityclerk@cupertino.org<mailto:cityclerk@cupertino.org>>
Subject: RE: Vallco EIR Scoping Comments - Hazards and Hazardous Materials

SUBJECT: Vallco EIR Scoping Comments – Hazards and Hazardous Materials

When studying all the impacts of hazardous materials, please pay special attention to areas where the young, the elderly and the sick may be located such as:

- Public schools – including the proposed Nan Allan school site
- Private schools
- Day cares
- Pre-schools
- Senior centers
- Residential homes used as assisted living
- Hospitals (Kaiser Hospital at Homestead and Lawrence Expressway for one)
- Urgent care facilities
- Parks and open areas where people congregate and exercise

Due to the close proximity of Vallco to Sunnyvale, Santa Clara and San Jose, the above sensitive areas should be considered regardless of the city it resides in but within a specified radius of at least 2 miles if not farther. The material from the cement plant on the far west side of Cupertino finds its way to the east side of town.

1. Vallco Shopping Mall was constructed in the early 1970's. Asbestos was one of many materials used during that time in building materials. The demolition of the existing mall will cause many of these materials to be released into the air.

Please study what materials, in addition to asbestos, will be in the structures to be demolished and their impacts of exposure to them.
Please take into consideration the afternoon winds that often occur and the distance these materials can be carried throughout our city.

2. During the construction of this project, a lot of dirt and trees are going to be dug up, a lot of cement and construction materials will be brought in and used.

Please study the possible materials found in the dirt that may be released as a result of the excavation and removal process.
Please study what materials will be used, how they will be applied and the impacts of exposure to them during the construction process.

3. After construction, the project plans propose a huge “roof” over a large part of the area. All the pictures show the edge of the roof without a fence.
Please study the impacts of this roof as a safety hazard for people and materials falling off the roof.

4. Please study the impacts of the hazardous materials on all populations including people with asthma.

Sincerely,
Peggy Griffin
[redacted]

From: Jenny Zhao [mailto[redacted]
Sent: Sunday, November 15, 2015 9:51 PM
To: City of Cupertino Planning Dept.
Cc: City Council; citystaff@cupertino.org; Jenny Zhao
Subject: Regarding Vallco EIR

Hi City Planning and City Council members,

I am writing to you with big concerns about the proposed Vallco project. I would like the following to be included in the upcoming EIR, and EIR must be done by an independent, highly reputable firm.

***Traffic impact, especially the traffic on Wolfe and Stevens Creek during rush hours and school dismissal hours, with the proposed 2 million sf office space.

***Schools, the cost of adding space for additional kids in our school, not only the classrooms, but also the staff, facilities, playgrounds, sports fields, etc. These additional costs should be absorbed by the community members.

***Do a comprehensive survey to see how many people would really use the shuttle bus to commute.

***Park space. A "green" roof top can't be seen from the ground, therefore it shouldn't even be considered as green space.

Thanks,
Yong

From: Liang C [mailto[redacted]
Sent: Sunday, November 15, 2015 10:05 PM
To: City of Cupertino Planning Dept.
Subject: Comment on Vallco EIR - impact on future development in Cupertino

RE: Comment on Vallco EIR

Please study the impact of The Hills at Vallco on the future development of Cupertino.

Please study the capacity of the sewage and water system to sustain future development in Cupertino before a major expensive system expansion. Would The Hills at Vallco use up all capacity in the system so that any future development is not possible without expensive system upgrade?

The massive development of 2 million square feet of office, way beyond the capacity of Cupertino, could prevent future development in Cupertino for the next 25 years since all the infrastructures are either saturated or overflowed by this development. Any future development would require significantly expensive infrastructure expansion; thus, preventing any more development in Cupertino.

Please study the capacity of more office development in other areas of Cupertino.
Please study the option of spreading office development to other areas of Cupertino, instead of within one block of Apple Campus 2, one of the largest office park in Silicon Valley.

A major corporation (with sales office in Cupertino to generate sales tax) would prefer a separate campus for brand recognition and also for security reasons. Please study the possibility of any major corporation to set up a stand-alone office in the future, once The Hills at Vallco is built.

With 2 million square feet of office from Vallco, the office space in Cupertino will increase by 50% within 5 years. And together with 3.5 million s.f. from Apple Campus 2 and 260,000 s.f. from Main Street, that's equivalent to 133 years of office growth from the analysis below:
In 2010, ABAG estimates that the office space in Cupertino will increase by 43,300 square feet per year.
Cupertino will have an addition of 3.5 million square feet of new office space opening in 2017 from Apple Campus 2 alone.
Main Street already added 260,000 square feet of office space, just opened in 2014.
The Hills at Vallco will add another 2 million square feet of new office space.
That's 5.76 million square feet of additional new office space on top of the current commute flow.
(Note: Apple Campus 2 may have only added 750,000 square feet in terms of office allocation in Cupertino's General Plan. But the fact remains that the 3.5 million square feet of new office will be added on top of the current housing demand and commute flow.)

3,500,000 s.f./43,300 s.f. per year= 80.8 years
5,760,000s.f./ 43,300 s.f. per year = 133 years

The office space added to Apple Campus 2 is equivalent to 80.8 years of office according to ABAG's estimation of 43,400 s.f. per year of office growth.

The office space added from Apple Campus 2, Main Street and Vallco will be equivalent to 133 years of office growth according to ABAG's estimation of 43,400 s.f. per year of office growth.

The transportation infrastructure has a limited capacity since the highway is limited by the number of lanes and even the proposed BRT lines could only transport a few hundred people per day. It is very costly and time consuming to expand the capacity of transportation infrastructure. Therefore, allowing 2 million square feet of office in one project practically means taking away the possibility of future office development in Cupertino by 2 million square feet. Other property owners in Cupertino with lands already zoned for office or mixed use with office would not be able to build more office.

A major corporation (with sales office in Cupertino to generate sales tax) would prefer a separate campus for brand recognition and also for security reasons. It is unlikely that a major corporation would want to rent office space in The Hills at Vallco. Yet, since The Hills at Vallco took away the capacity of Cupertino to accommodate more office in the next 133 years, would the infrastructure of Cupertino be able to sustain more office development, especially by a major corporation?

From the EIR for GPA, the capacity for sewage system is already up to the limit, specially in the Wolfe and Blaney area. Even if Cupertino is able to acquire more capacity at this point. How much more can the system take?

Liang Chao

From: Peggy Griffin <[redacted]>
Date: November 15, 2015 at 10:05:28 PM PST
To: Piu Ghosh <PiuG@cupertino.org<mailto:PiuG@cupertino.org>>
Cc: 'Grace Schmidt' <cityclerk@cupertino.org<mailto:cityclerk@cupertino.org>>
Subject: Vallco EIR Scoping Comments - Groundwater

SUBJECT: Vallco EIR Scoping Comments – Hydrology and Water Quality

1. Groundwater impacts - Due to the massive digging required by this project, please study

a. the impact on the groundwater table

b. the massive pumping out of the water table as well as resultant contamination

c. the impacts on local wells

2. Water supply –

a. the EIR should analyze increased water demand and whether it will increase stress on the Santa Clara Valley Water District, the local water wholesaler, or the State Water Project, the eventual source of SCVWD's water.

b. How will water for the green roof park area be provided? How will it be stored and treated?

Sincerely,
Peggy Griffin
[redacted]

From: Frank Geefay [mailto[redacted]
Sent: Sunday, November 15, 2015 10:09 PM
To: Piu Ghosh; City of Cupertino Planning Dept.
Cc: [redacted]
Subject: The Hills at Valco EIR Scoping Public Comment

***Smart Growth* Considerations**

When reviewing to approve any major development for the city, at the very least the City must consider its impacts upon the community and its sustainable growth impacts. The principles embodied in "*Smart Growth*" are an excellent guide that the City should apply. This is a movement which many cities throughout the nation have adopted. It has its roots in Europe. Car traffic is universally the most adverse impacting factor upon growth due to its combined physical, financial, and social impacts: traffic congestion; the space occupied on roadways and parking spaces; its demand on energy and fossil fuels; its production of greenhouse gases and air pollution; the cost of infrastructures to support its use; and its toll on human lives, especially the young. Thus in any city planning involving growth traffic must be the greatest consideration in mitigate its consequences in order for a development to have growth sustainable impact.

Traffic Mitigation

Not only is its immediate impact important but also its future impact on limiting growth elsewhere. So even though the development being considered may not in itself saturate traffic flow the increase in traffic created by it may hinder further effective city developments. Heavily trafficked roads as a result of a development may also hinder later mitigation measures making such measures far more costly, time consuming, and compromised. If a development increases traffic to near saturation levels during peak hours, partial road closures for maintenance, accidents, and road improvements may cause great hardships to whose whom it serves and provides a living. This may also be problematic when other developers want to use the same road and freeway infrastructures making further developments unfeasible. Thus there must always be significant extra road capacity to mitigate these eventualities. It is simply shortsighted to use the best case scenario to decide upon the feasibility of a development.

Apple's Impact

Apple's Campus II will house about 14,000 employees resulting in an estimated 8,000 additional cars to freeways and local streets. The 280 freeway exit onto Wolf Road is being widened to accommodate Apple's increased traffic burden in addition to their buses and van-pools. This may provide some marginal amount of overcapacity assuming there is no further growth on that site, an unrealistic expectation due to Apple's rapid growth. Originally they had estimated 13,000 employees but in the intervening year that number has increased by 1,000 employees.

Sand Hill Proposal and potential Impact

The current plans for Vallco recently submitted to the City by Sand Hill Development for 2,000,000 square feet of office space, 800 units of varied housing, retail, and other amenities will add an estimated 10,000-12,000 cars on the same freeways, freeway exits, and roadways as Apple Campus II just one block away. Then Main Street will soon open nearby with more offices, housing and retail adding more cars. Apple alone requested the freeway exit widening now underway. Did Caltran anticipate Vallco's 10,000-12,000 additional cars and those from Main Street when planning the freeway exit widening more than one year earlier? Is there adequate over capacity to handle partial

road closures from accidents, maintenance, and improvements with upwards of 22,000 combined new and existing cars during peak hours? Is there adequate roadway capacity for additional businesses in the near future such as at The Oaks, Target, Marina, Cupertino Village, etc.?

The Proposal

It is most prudent to develop Vallco in a growth sustainable manner that does not significantly impact traffic flow to allows for future growth elsewhere in the city, has a positive impact upon the quality of life of our residents, and is a profitable and acceptable development option for Sand Hill Development. I do not view this situation as an all or nothing proposition. I propose an alternative plan based largely upon sustainable *Smart Growth* principles for traffic mitigation that also promotes community development that I believe will benefit all parties. Each component of this proposal serves to offset the adverse impact of other elements or complement those that don't. If done optimally to mitigate traffic it might actually reduce overall peak traffic loads below Apple's projections alone while still accomplishing all the things just mentioned.

The Details

The percentages stated are only suggestions. The proportions of each sub-element should be adjusted to what is most sustainable and makes greatest sense for this community to thrive within itself. The overall size of Vallco is also up for discussions and can very from 2,000,000-3,000,000 square feet or so. *It is always better to avoid a problem rather than create one then attempt to mitigate it later.* It will cost far less in the long run with more optimal results. I envision Vallco as a *self-contained community within a community*:

1. Business (50%):-
    1. Retail;
    2. Entertainment, gaming and sports recreation centers;
    3. Quality Restaurants and lower-end food courts;
    4. Hotel;
    5. Offices - doctors, lawyers, realtors, tax preparation, escrow, loans, after-school tutors, etc. (no more than 20% of businesses).
2. Housing (40):-
    1. Studio - target single Apple employees;
    2. Single Bedroom - target married Apple employees;
    3. Multiple Bedrooms - target Apple and other families with children;
    4. Senior Housing - far more than the 40 units Sand Hill suggested. If they can build 40 units they can build far more. It would be kept separate form the other housing within easy walking distance to the green garden roof and could also include assisted living.
3. Child Care (10%):-
    1. On sight School K-9 for onsite residents;
    2. High School club/meeting area and media center;
    3. Playground for school and children on the green roof;
    4. On sight Library (also for adults);
    5. Daycare Center for Vallco residents and shoppers.
4. Mobility Alternatives:-
    1. Shuttle Bus for Vallco residents to:

        1. Public Transportation hubs;
        2. Caltrain;
        3. To High Schools and DeAnza College for students;
        4. To other businesses throughout town for those employed elsewhere in the city.
    2. Bicycle Facilities:
        1. Protected Class IV bikeways down the length pf Stevens Creek Blvd. to Vallco to safely accommodate riders of all ages and abilities;
        2. Bicycle lanes and parking throughout Vallco;
        3. Bicycle loaners or bicycle shares at the parking lot entrance to Vallco shopping.
    3. Pedestrian Friendly:
        1. Nice pleasant easy to walk sidewalks between locations with separate paths marked for bicycles;
        2. Lockers at various locations to temporarily store things;
        3. Water fountains spread throughout the walking paths and inside large retailers;
        4. Benches and tables for people to rest, eat, or read between shipping.
    4. Long secured bicycle/pedestrian enclosed bridge leading directly from the studio and single bedroom housing to the Apple Campus II building (joint project between Apple and Sand Hill Dev.).

Everything will be conveniently withing walking distance for occupants and visitors at Vallco consistent with the principles of *Smart Growth*. There is plenty of diversity in land use elements to complement one another and provide for all the needs of this community within a community and for the profitability of the developer and the sure success of Vallco with minimal impact upon traffic loading in combination with Apple Campus II. This could also serve as a sustainable best practice model that other cities may want to adopt as a major mixed use development that for a change mitigates traffic.

1. **Business** is at the heart of this community within our city. Retail, entertainment, sports, restaurants, and offices would have a captive community of housing occupants to serve as customers/clients in additional to other residents from Cupertino. The hotel would serve guest of residents as well as Apple and other businesses in town with convenient shuttles to other businesses. The emphasis should be to serve the needs of Cupertino residents. Serving visitors from other communities is secondary as this creates more traffic especially during holidays. What will attract Apple employees to buy housing here is a broad base of businesses tailored to the needs of Apple employees and young high tech adults as well as families and kids. A vibrant retail is what residents want most complemented with a broad range of quality dining experiences and a mix of entertainment and sporting/recreational challenges and modest office services.

2. **Housing** units to address the needs of Apple employees within walking distance of the new Apple Campus II and other local high tech companies range from studio to single bedroom housing. It is important that retail, eateries, entertainment, and recreation be attractive to

young Apple and high tech employees. Multiple bedroom family housing would be available for families with children with child care amenities. There would also be far more senior housing than suggested by Sand Hill to take care of a growing senior population separated form the other housing elements for quiet and privacy. Seniors would have easy access to the green area on the roof to take walks and enjoy the out of doors. This senior housing may also include assisted living. Sand Hill could partner with a senior housing specialist. All ages would be accommodated conveniently close to everyone's daily need. It may be possible for young adults, their parents, and grand parents to live in Vallco within walking distance of one another so they can all easily visit one another and keep an eye on their aging seniors while seniors visit or care for grandchildren.

3. **Child Care** facilities such as a K-9 School, Library, Day Care Center, and a park and play area on the green roof would provide for a full range of child care needs for residents living in Vallco. The Library and Day Care Center would also be available for shoppers and Cupertino residents. The Library would have an added benefit of reducing the load on the Library at the Civic Center, the busiest in the County, and free up parking there. Everything would be a short walk from everything else with safety and security for children.

4. **Mobility Alternatives** to nearby work and public transportation will be readily available through shuttle buses and protected Class IV bicycle lanes. Shuttle buses could be used for high school and DeAnza College students as well. An agreement could be made with FUHSD that a lottery or other process would distribute high school students throughout the district or something similar. This will avoid overcrowding a single school withing a single school zone. Bicycles could be made available at the entrance of the shopping area so that they could be borrowed or rented through Bay Area Bike Share and ridden throughout Vallco or for simply carrying heavier loads. Of course walking will always be an option to go everywhere withing Vallco as well as to the shuttle transit center.

   A long secured bicycle/pedestrian enclosed bridge leading directly from the studio and single bedroom housing units to the Apple campus (joint project between Apple and Sand Hill) serving as a perfect and sustainable path to bridge housing needs directly to Apple employees. There would be a people mover like in airports also located on this bridge. Exits leading below to convenient locations such as bus stops, bicycle lanes, and walking paths would descend through elevators in the support shaft structures of this bridge.

Win-Win Proposition

All of these interrelated elements could actually reduce traffic from the Apple employees living at Vallco, solve further overcrowding schools, provide residents and Vallco occupants with a vibrant shopping/dining/entertainment experience with legal, doctor, realtor, and other office services without overwhelming traffic, provide sufficient housing units to satisfy the city's housing needs as well as ABAG housing requirements with a captive customers/clients for retail and offices, provide amenities for families, provide senior housing without impacting traffic our schools, provide family housing with children and supportive facilities, provide hotel lodgings for Apple visors, Vallco residents visitors, and other visitors with hotel taxes all going to the city, and providing a very profitable and successful investment for Sand Hill Development, a sustainable proposition for

all. Everyone gets most of what is most important to them. And it is sustainable allowing for future growth in the city without overburdening traffic or anyone else, a win-win for all.

Office vs. Housing

As a side note if the city grants Sand Hill all the office space it requests for Vallco, most of it will likely go to Apple offices, Apple vendors, and Apple contractors due to its proximity to Apple Campus II. This does nothing to help the city diversify its business revenue stream portfolio as it is still tied to Apple. Housing however is probably more profitable to Sand Hill than offices and will always be in great demand with or without Apple and fulfill a critical shortage without negatively affecting ABAG's future housing allocations as does office space. Perhaps it will bring in a little less tax revenues for the City but it will otherwise be of greater benefit to the community without overburdening our local schools or traffic. This proposal will have the greatest overall benefit to the community. I hope this will have significant overriding consideration from the City even above the City's desire for a more diversified revenue stream.

Best Regards,
Frank Geefay
Cupertino Resident

From: Liang C [redacted]
Sent: Sunday, November 15, 2015 10:29 PM
To: City of Cupertino Planning Dept.
Subject: Comment on Vallco EIR: impact on overbuilding of office space in a very short time

RE: Comment on Vallco EIR

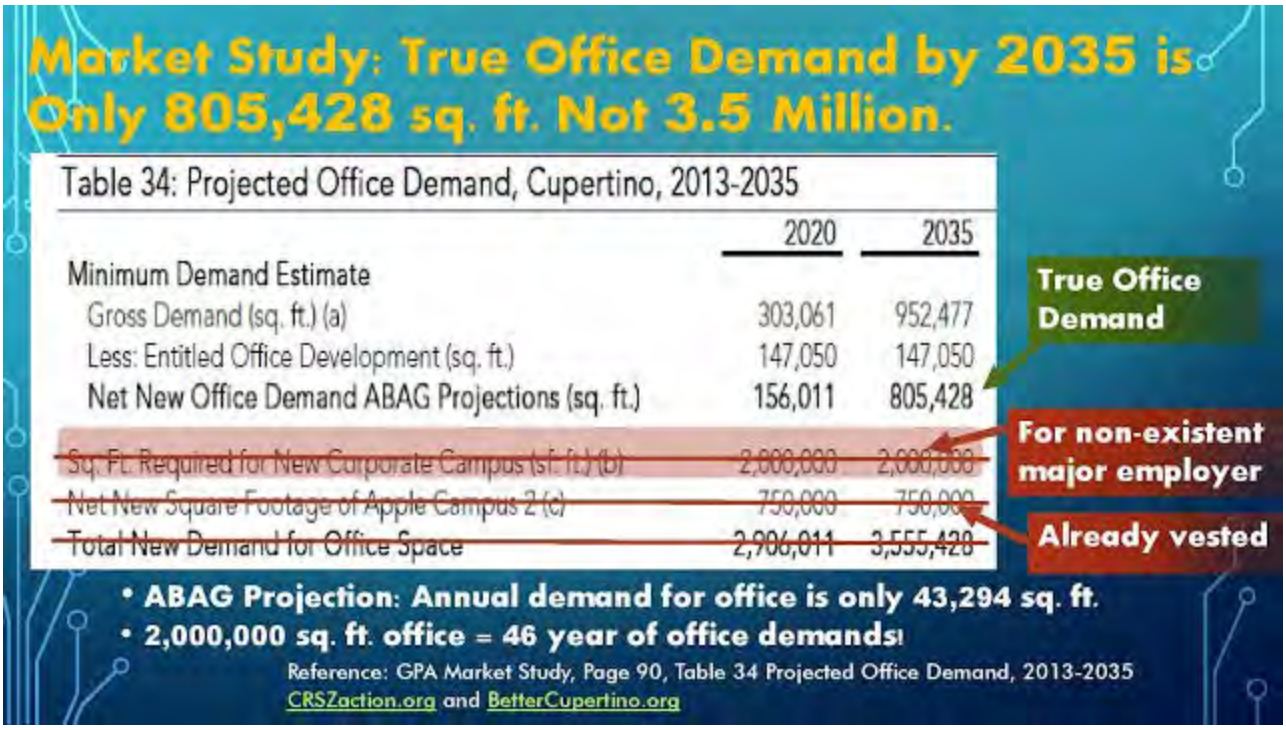
The Market Study done in 2014 for the GPA in fact shows **only a demand of 805,428 square feet of office by the year 2035**. The estimated demand for office space in Cupertino is 43,300 square feet per year. **The 2,000,000 square feet is the equivalent of 46.2 years of office growth** in Cupertino. Not only the proposed Hills at Vallco will devastate the traffic condition, **it will kill any chance of another major corporation to settle down in Cupertino.** The capacity of our traffic infrastructure is very limit since there is literally no mass transit.

Please study the impact of the oversupply of office space in the long run on housing, employment, transportation, quality of life, especially when the infrastructure to support it cannot catch up in the short term.
The area might be able to handle a reasonable growth of office space over 20 or 30 years. However, when 2 million square feet of office is built before the other 2.5 million square feet of office has not even finished construction, the accumulated impact is hard to estimate.

Please study any other area or city that has seen such high growth rate in office space, namely 50% growth of office space in 5 years, and compare its impacts.

Market Study Does Not Support Two Million Square Feet of Office at Vallco

The Market Study done in 2014 for the GPA in fact shows **only a demand of 805,428 square feet of office by the year 2035**. The estimated demand for office space in Cupertino is 43,300 square feet per year. **The 2,000,000 square feet is the equivalent of 46.2 years of office growth** in Cupertino. Not only the proposed Hills at Vallco will devastate the traffic condition, **it will kill any chance of another major corporation to settle down in Cupertino.** The capacity of our traffic infrastructure is very limit since there is literally no mass transit.



During the General Plan Amendment (GPA) Process, the City of Cupertino hired the consulting firm BAE Urban Economics to conduct a Market Study. Like reading all such consultant reports, ordered by the City, wise readers look at the data collected in the report and derive informed conclusions on their own. The conclusion derived by these consultant reports are often quite biased, and one should read it with caution. The office demand analysis is one such example.

On Page 83 of the Market Study, it shows that the "**estimated demand for office space in Cupertino averaging approximately 43,300 square feet per year**. After accounting for projects currently entitled or under construction, this suggests that minimum net office demand will total approximately 156,000 square feet by 2020 and 805,400 square feet by 2035, as shown in Table 34."

ABAG projection is regarded as aggressive by many already. However, **the Council directed the staff to add "2-3 million square feet of office"** when the GPA process was initiated from Aug. 21, 2012 Council Meeting. Therefore, the consultants have to find a way to deliver the **expected** "***office demand***".

The Market Study argues:

> Table 34 factor in the capacity to accommodate the proposed Apple Campus 2 along with another new corporate campus equivalent in scale to the recent projects shown in Table 33, in addition to the minimum demand estimates that were developed based on projected employment. As shown, this results in a net new demand of approximately 2.9 million square feet by 2020 and 3.6 million square feet by 2035. **Given the recent shortage of**

office spaces in Cupertino containing more than 10,000 contiguous square feet, a new recommended office allocation could also allow for multi-tenant office developments, which could create the space needed for mid-size companies to grow in Cupertino as well as accommodate a new major technology company or future expansion of an existing firm.

Even if a new corporate campus is expected, Table 33 (below) shows the office square footage is mostly under 1.5 million. Even though there is only a shortage of 10,000 contiguous square feet of office, the consultants from BAE Urban Economics concluded that Cupertino has an additional office demand of 2 million square feet, which is quite a stretch. And Table 34 shows the ***ballooned*** total office demand of 3.5 million. Take away the 2 million for an non-existent corporate office. Take away the 750,000 square feet already allocated to Apple and under construction. **The true office demand is only 805,428 square feet by 2035.**

Besides Cupertino City Council can always initiate a new GPA process to grant an additional 1.5 million or 2 million square feet of office space if ever another company wants to settle down in Cupertino. There is no need to pre-allocate it in the General Plan.

And there is certainly no way to justify giving this 2,000,000 square feet of office to Vallco at all. A major corporation headquartered in Cupertino brings in sales tax plus property tax and a brand name recognition, like Apple brings to Cupertino. Yet, 2,000,000 square feet of office at Vallco merely brings in property tax.

Two million square feet is the equivalent of 46.2 years of office growth in Cupertino. (2,000,000/43,300=46.2) All cramed in one location within one block from the 3.5 million square feet of office in Apple Campus 2, which include 750,000 extra square feet on top of the original allocation for HP. That's another 17.3 years of office growth. (750,000/43,300=17.3)

More than 60 years of office growth all squeezed into one block area to be built within the next 5 years. Will Cupertino ever have the capacity for another major corporation in the near future? Not likely.

The capacity of the traffic infrastructure is limited in Cupertino since there is no true mass transit. VTA doesn't have any plan in the next 25 years to introduce light rail or any other transit that can transport tens thousands of people. Therefore, the amount of office space that Cupertino can accommodate is also limited since Cupertino already has insufficient housing.

Allocating 2,000,000 square feet office to Vallco is essentially grabbing the space from other property owners in town, whose properties are already zoned for office. These other property owners won't even be able to build a small amount of office as a result since roads leading into Cupertino would be extremely congested. It is simply not fair to other property owners.

Table 33: Corporate Campuses Recently Proposed by Silicon Valley Tech Companies

Company	Building Size (sq. ft.)	Location
Apple	3,400,000	Cupertino
Google	1,100,000	Mountain View (Bayfront NASA)
Gilead Sciences	2,500,000	Foster City
Samsung	680,000	North San Jose
NVIDIA	1,000,000	Santa Clara
Vmware Inc.	1,500,000	Palo Alto Stanford Research Park
New Construction	450,000	
Renovation	1,050,000	
Facebook Inc.	1,475,690	Menlo Park
East Campus	1,035,840	
West Campus	439,850	
SRI International	1,300,000	Menlo Park

Sources: Silicon Valley Business Journal, 2013; Bloomberg Business Week, 2013; The Registry, 2013; City of Cupertino, 2013; Facebook, 2012; BAE, 2013.

REFERENCE:

1. City of Cupertino GPA Market Study, prepared by BAE Urban Economics, Feb. 13, 2014
2. Job Growth Projection Chart, BetterCupertion Blog We Support Sensible Growth, Planned Growth

CRSZaction.org and BetterCupertino.org

Paid for by Cupertino Residents for Sensible Zoning Action Committee, PO Box 1132, Cupertino, CA 95015, FPPC #1376003

From: Peggy Griffin [redacted]
Date: November 15, 2015 at 10:58:10 PM PST
To: Piu Ghosh <PiuG@cupertino.org<mailto:PiuG@cupertino.org>>
Cc: 'Grace Schmidt' <cityclerk@cupertino.org<mailto:cityclerk@cupertino.org>>
Subject: Vallco EIR Scoping Comments - Noise, Traffic, Emergency Response impacts

SUBJECT: Vallco EIR Scoping Comments –

The traffic on I-280 and CA-85 has gotten so bad that the following occurs every day:

- Noise levels have increased so that insulation does not cut the noise level inside the home anymore.

- Even at night now the noise is high. It doesn't die down anymore.

- Everyday there seems to be an accident on I-280 between Foothill Expressway and Lawrence Expressway.

- The large employee buses and cars are ditching the freeways and hauling down side streets in Cupertino and Sunnyvale to get to the De Anza Blvd and Wolfe areas.

- Apple employees are parking up and down our neighborhood streets to avoid having to get out on Mariani and De Anza Blvd.

With the addition of 2,000,000 square feet of office that the Hills-at-Vallco is proposing, on top of existing and upcoming projects in the area (Apple 2, Main Street, Agilent re-development, etc.) please study the impacts of traffic on

- Noise during commute times as well as at off-peak hours in the evening and during the day

- Increased accident rates

- Response times to those accidents

When looking at traffic, please look at these points as bailing points and the subsequent traffic on the local streets as a result of cars

- CA-85 and El Camino

- CA-85 and Fremont Ave.

- CA-85 and Homestead Road

- I-280 and Foothill Expressway

- Foothill Expressway to Stevens Creek Canyon Road

Please study the impacts of traffic as described above on

1. Noise levels along CA-85, I-280, Foothill Expressway, El Camino Real, Fremont Ave, Homestead Road, Mary Ave., Hollenbeck/Stelling, Saratoga-Sunnyvale Road/De Anza Blvd, Wolfe/Miller, Tantau Ave, Lawrence Expressway from El Camino to Prospect since Prospect goes into the Cupertino hills.

2. Increased accident rates along those roads listed in #1

3. Increased emergency response times along those roads listed in #1.

Please study the impacts of traffic on cell reception. Many people have dropped their land lines and are only using cell phones. When the traffic increases, more people are using their cell phones and the capacity of the cellular companies is stressed. It is very common now to not be able to complete a call while on De Anza Blvd during rush hour. This impacts emergency response and the ability of residents, workers and commuters to report an emergency. This can effect fire, ambulance, etc. Please study all cellular carriers.

Please study the impacts of 10,000 additional workers in the Vallco area on cell reception. This can impact emergency response due to lack of capacity to complete a call.

Sincerely,
Peggy Griffin
[redacted]

From: Yu Ying [mailto[redacted]
Sent: Sunday, November 15, 2015 11:01 PM
To: City of Cupertino Planning Dept.
Subject: Comment on Vallco EIR:traffic study

RE: Comment on Vallco EIR

As a resident living near Stevens Creek Blvd and Wolfe Rd, I am very concerned about the traffic situation if the plan proposed by SHP gets approved with 800 residential and 2 million square feet of office.

Please study
1. how much time it takes a car to reach Homestead Rd. from Bolinger Rd along the north bound of Miller/Wolfe Rd between 8-9am week days;
2. how much time it takes a car to reach Homestead Rd from Atherwood Ave. which requires a left turn on to Miller Rd between 8-9am week days;
3. how much time it takes a car to reach Bolinger Rd from Homestead Rd along the south bound of Miller/Wolfe Rd between 5-7pm week days.

Note that, when the Vallco project completes, the new Apple II campus will be hosting 14,000 employees every week day. I would like the EIR to study the traffic caused by both of these two huge projects, which is the actual traffic situation that impacts residents' daily life. A study on the traffic introduced by the Vallco project alone doesn't reflect how worse the situation can be in reality, and is not convincing at all.

Please include my request as record for Vallco project.

Best Regards,

Yu (Cupertino Resident)

From: Liang C [redacted]
Sent: Sunday, November 15, 2015 11:11 PM
To: City of Cupertino Planning Dept.
Subject: Comment on Vallco EIR - No development project without Traffic Mitigation Fee Program

RE: Comment on Vallco EIR

The EIR for GPA specifically requires the City to commit to implement a Traffic Mitigation Fee Program. The General Plan was also amended to include policies to collect Transportation Impact Fee.
Due the massive impact of The Hills at Vallco, the project should not be approved before the Traffic Mitigation Fee program is in place. In fact, no other development project should be approved before the Transportation Impact Fee is adopted.

EIR for GPA, Sec. 4.13 Page 53:

> "Mitigation Measure TRAF-1: The City of Cupertino shall commit to preparing and implementing a
> Traffic Mitigation Fee Program to guarantee funding for roadway and infrastructure improvements that
> are necessary to mitigate impacts from future projects based on the then current City standards. As part
> of the preparation of the Traffic Mitigation Fee Program, the City shall also commit to preparing a
> "nexus" study that will serve as the basis for requiring development impact fees under AB 1600
> legislation, as codified by California Code Government Section 66000 et seq., to support implementation of the proposed Project. The established procedures under AB 1600 require that a
> "reasonable relationship" or nexus exist between the traffic improvements and facilities required to
> mitigate the traffic impacts of new development pursuant to the proposed Project."
>
> "The fees shall be assessed when there is new construction, an increase in square footage in an existing
> building, or the conversion of existing square footage to a more intensive use. The fees collected shall be
> applied toward circulation improvements and right-of-way acquisition. The fees shall be calculated by
> multiplying the proposed square footage, dwelling unit, or hotel room by the appropriate rate. Traffic
> mitigation fees shall be included with any other applicable fees payable at the time the building permit is
> issued. The City shall use the traffic mitigation fees to fund construction (or to recoup fees advanced to
> fund construction) of the transportation improvements identified above, among other things

that at the
time of potential future development may be warranted to mitigate traffic impacts."

General Plan Policies on Transportation Impact Fee:

Policy M-10.1: Transportation Improvement Plan

Develop and implement an updated citywide transportation improvement plan necessary to accommodate vehicular, pedestrian and bicycle transportation improvements to meet the City's needs.

Policy M-10.2: Transportation Impact Fee

Ensure sustainable funding levels for the Transportation Improvement Plan by enacting a transportation impact fee for new development.

Each project with EIR only mitigate direct impact of the project on the surrounding areas. However, there are cumulative impacts of the projects on other parts of the city that cannot be mitigated or even measured in relation to only one project.
Transportation Impact Fee provides funding to mitigate such cumulative impacts citywide.

If The Hills at Vallco is not required to pay for Transportation Impact Fee at the time of project approval, the significant impact of the project on the traffic infrastructure will significantly increase the Transportation Impact Fee needed for future project since a lot more mitigation measures would be needed to attempt to improve the Level of Service to "less than significant" level from "significant and unavoidable" if at all possible.

Please study the list of extra mitigation measures and thus the amount of mitigation fees needed citywide to mitigate the impact of The Hills at Vallco.

Liang Chao

From: Peggy Griffin <[redacted]
Date: November 15, 2015 at 11:21:41 PM PST
To: Piu Ghosh <PiuG@cupertino.org<mailto:PiuG@cupertino.org>>
Cc: 'Grace Schmidt' <cityclerk@cupertino.org<mailto:cityclerk@cupertino.org>>
Subject: Vallco EIR Scoping Comments - misc

1) traffic analysis - EIR should analyze using both the current level of service methodology currently in use and the vehicle miles travelled methodology that has been released in draft form by the Office of Planning and Research. If either approach indicates significant impacts, the impacts should be considered significant.

2) What will be the electrical and gas supply for the new project?

a) How much will the project increase greenhouse gas generation?

b) How will greenhouse gas generation be mitigated?

3) What will be the growth-inducing impact of the project?

a) Will the project result in increasing the pressure on the local housing market, resulting in increased housing sale and rental prices and forcing lower income households out of the area, increasing their commute distances to reach jobs in the area?

4) What will be the cumulative impact of this project plus other objects in and around Cupertino, especially the nearby Apple campus expansion?

5) What will the seismic safety impacts of the large green roof park area be?

a) Has such a large green roof project been done previously in a seismically active area like Cupertino?

Sincerely,
Peggy Griffin
[redacted]

From: Peggy Griffin [redacted]
Date: November 15, 2015 at 11:47:33 PM PST
To: Piu Ghosh <PiuG@cupertino.org<mailto:PiuG@cupertino.org>>
Cc: 'Grace Schmidt' <cityclerk@cupertino.org<mailto:cityclerk@cupertino.org>>
Subject: Vallco EIR Scoping Comments - conflicts with the General Plan

SUBJECT: Vallco EIR Scoping Comments – conflicts with the General Plan

The proposed project and specifc plan for Vallco conflict with many of the Policies and Strategies of the Cupertino General Plan as listed below.

1. With 2,000,000 sq. ft. of office, this project will significantly increase the imbalance that already exists to a point that may put the City at risk for penalties.
[cid:image002.jpg@01D11FFF.FFB37E90]

Policy LU-1.X: Jobs/Housing Balance. Strive for a more balanced ratio of jobs and housing units.

2. The immense size and density of the project conflicts with these GP policies.
[cid:image004.jpg@01D11FFF.FFB37E90]
[cid:image011.jpg@01D11FFF.FFB37E90]

- **Policy LU-12.4:** Hillside Views. The Montebello foothills at the south and west boundary of the valley floor provide a scenic backdrop, adding to the City's scale and variety. While it is not possible to guarantee an unobstructed view of the hills from every vantage point, an attempt should be made to ~~allow~~ preserve views of the foothills ~~from public gathering places~~.

- **Policy LU-27.~~7~~8:** Protection. Protect residential neighborhoods from noise, traffic, light, glare, odors and visually intrusive effects from more intense development with landscape buffers, site and building design, setbacks and other appropriate measures.

NOTE: This particular stategy is specific to the Vallco area – note the "human scale". There is nothing about this project this is of human scale!
[cid:image012.jpg@01D11FFF.FFB37E90]

- **Strategy LU-19.1.9:** Building Form. Buildings should have high-quality architecture and an emphasis on aesthetics, human scale, and create a sense of place. ~~Additional heights may be approved in specific areas by the City Council as part of the Community Benefits Program and per heights allowed in the Community Form Diagram (Figure LU-1).~~ Taller buildings should provide appropriate transitions to fit into the surrounding area.

3. During demolition, excavation and construction residents will be exposed:
[cid:image013.jpg@01D11FFF.FFB37E90]

- **Policy HS-6.2:** Proximity of Residents to Hazardous Materials. Assess future residents' exposure to hazardous materials when new residential development or ~~childcare facilities~~sensitive populations are proposed in existing industrial and manufacturing areas. Do not allow residential development or ~~childcare facilities~~sensitive populations if such hazardous conditions cannot be mitigated to an acceptable level of risk.

Sincerely,
Peggy Griffin
[redacted]

From: Liang C [redacted]
Sent: Sunday, November 15, 2015 11:50 PM
To: City of Cupertino Planning Dept.
Subject: Comment on Vallco EIR - Vehicle Minutes/Hours Traveled

RE: Comment on Vallco EIR

Please study the amount of extra time residents and workers need to spend on the road due to the massive office park from Apple Campus 2 and Vallco.

For highway access, please study the **Vehicle Hours Traveled (VHT)** to understand the amount of extra time vehicles spent on the freeway.
Vehicle Miles Traveled (VMT) is not a true measurement of traffic congestion since it doesn't take into account of the speed vehicles take to travel at all. The longer a vehicle spent on the road the more greenhouse gas emission it generates. Whenever a vehicle travels lower than 50 miles per hour, it emits more greenhouse gas. The more time vehicles spent on the road and increase the amount of time when accidents might occur. The more time each driver spent on the road, also increase the stress level and impact the health of drivers.

The EIR for GPA provided the average speed of each segment of the freeway. Please convert that to the time it takes to go through each segment. Please provide the time it takes to travel from different points of freeways within 30 mile radius.

The EIR for GPA only studied freeway segments within the City of Cupertino and at most one exit outside of Cupertino. However, 84% of Cupertino workers do not live in Cupertino. Many travel long distance from their home to Cupertino. The Hills at Vallco and Apple Campus 2 will double the number of workers who commute into Cupertino. They won't be living within one exit of Cupertino.

Please extend the study of freeways to a 20-mile radius to provide the LOS data for those road segments and also the time it takes to go through the segment. This way, a worker or a resident can figure out how much longer their commute time will increase.

For local streets, please study the amount of time from different corners of Cupertino to reach schools, libraries, Quinlan center and other common destinations. The LOS is one possible measure for one intersection. But one often need to travel through multiple intersections. At some intersections it takes extremely long to make a left turn and that adds to the local travel time. When the total amount of time it takes to go through artery streets, such as Stevens Creek or Wolfe, is longer than expected, people tend to take a short cut and use other streets, such as McClellan and Blaney. But these secondary streets are not equipped to handle the added traffic and these vehicles taking short cut tend to have impatient drivers who are driving at a higher speed. And that leads to more risks on traffic accidents. And there are more bicycles on these secondary streets, which add to the risks of fatal accidents.

Please study the impact on secondary streets when the artery streets have too many intersections with low LOS, and especially the impact on traffic accidents.

The more time it takes to travel on freeway or local street also increases the emergency response time that emergency vehicles need to get to hospitals. Cupertino doesn't have its own major hospitals. Our patients need to go to El Camino hospital in Mountain View or Good Samaritan Hospital in Los Gatos. Residents often need to drive by themselves to send a sick relative to the hospital. The time it takes to reach hospitals should be studied.

Many services, such as pluming, gardening, cleaning services, etc. for Cupertino residents are provided by companies in San Jose or other areas. The longer time it takes for these service workers to reach Cupertino, the less likely they want to serve Cupertino residents, or the more they will charge the residents. And the longer time Cupertino residents have to wait for these services.

Liang Chao

From: Liang C [mailto:[redacted]
Sent: Monday, November 16, 2015 12:15 AM
To: City of Cupertino Planning Dept.
Subject: Comment on Vallco EIR - impact on emergency response time should be based on real data.

RE: Comment on Vallco EIR

Please study the emergency response time for fire protection, police and especially medical emergency with real data.

With an increase of 30% residence population and 50% worker population, the EIR of GPA concludes that
"TRAF-4 Implementation of the proposed Project would not result in inadequate emergency access."

This conclusion is derived simply by mentioning a bunch of General Plan policies, which are often not enforced. There is no real data on the current response time and no data on the predicted response time. No data on the expected expansion needed to provide service to the added population.

The traffic analysis shows that LOS of local streets and freeways would become much worse to the worst level of "Significant and Unavoidable" impact. And yet, the data from traffic analysis is not used at all to evaluate the emergency response time.

Merely reference to a bunch of General Plan policies is not an acceptable way to evaluate the impact.
For example, the following is EIR for GPA Section 4.13. Page 63.

> "Because the proposed Project is a program-level planning effort, it does not directly address project-level
> design features or building specifications; however, the General Plan includes polices that once adopted
> would ensure efficient circulation and adequate access are provided in the city, which would help facilitate
> emergency response. Within the Health and Safety Element, Policy 6-8, Early Project Review, would direct
> the City to “involve the Fire Department in early design stages of projects requiring public review.....”
>
> "Ongoing implementation of the General Plan policies and the City’s engineering standards would ensure
> that adequate emergency access is provided in Cupertino. Therefore, impacts associated with the
> implementation of the proposed Project would be less than significant."

This is not good enough. For emergency response time, please study the real impact using real data. Do not use any personal communication or policies that have not been implemented yet.

Please study the amount of time for residents to reach the nearest hospital in a private vehicle in the event of non-life threatening emergency.

For example, the amount of extra delay in each intersection is already calculated in the LOS study of local streets. The average speed of freeways and delay on freeway on-ramp and off-ramp are also available in the traffic study. Such data could be used to compute the amount of time to reach a hospital from different areas of Cupertino.

Please study the impact on emergency response time for an ambulance to reach a home and from the home to the nearest hospital.

Liang Chao

From: Liang C [redacted]
Sent: Monday, November 16, 2015 12:39 AM
To: City of Cupertino Planning Dept.
Subject: omment on Vallco impact - bike path and pedestrian safety

RE: Comment on Vallco EIR

Please study the impact on bike paths on all artery streets that are logical shortcuts of freeway exits to reach Vallco when freeways or the exits or entrances are congested.

Please study the impact on bike paths on all secondary streets that are logical shortcuts when artery streets are congested.

Please study the impact on bike accident rates in relation to increased volume of vehicles.

Please study the impact on bike accident rates in relation to increase volume of vehicles at intersections making left or right turns.

Please study the impact on bike accident rates in relation to increase volume of vehicles when a bike is making a right turn, left turn or simply straight.

Please study the impact of accident rates involving pedestrians at intersections when the vehicle volume increases.

Liang Chao

From: Jon . [mailto:[redacted]
Sent: Monday, November 16, 2015 12:39 AM
To: [redacted]; City of Cupertino Planning Dept.; Piu Ghosh; City Clerk
Subject: Comments For Vallco EIR

Cupertino Planning Department,

Below are my comments for the Vallco Hills EIR task. Due to the increasing traffic problem in Cupertino, and we still have yet to see the actual impact of the Apple Starship, Rose Bowl, Main Street, etc, this EIR is of the upmost importance and must be very comprehensive and complete. The usual Cupertino EIRs that I have read are not sufficient for a project of this magnitude. And I believe the Cupertino Planning Department has not historically shown that it truly understands the current traffic implications nor the future implications on a growing city. A projects effects today on the "LOS" impacts says nothing about how todays traffic impact will affect the cities traffic as more development occurs each year through 2040. At some year before 2040, the absolute maximum capacity could be reached and at that point, the city would have stalled vehicle movement like San Francisco. The Cupertino Planning Department must make sure that there is sufficient traffic capacity available for growth through 2040 as a minimum.

Vallco Hills EIR traffic tasks that need to be performed

Being a licensed California engineer, I believe the Traffic LOS is a overly simplistic method of defining the effects of a development on the local traffic vicinity. In this day with the traffic problems that we have, the traffic analysis needs to be much more detailed and complete. Things that need to be done are:

1. The traffic capacity for all roadway segments between all traffic lights on Stevens Creek, DeAnza Blvd, Wolf Road, Homestead Road, Tantau, and Lawrence Expressway. This means “the time for each signal cycle duration” (light turns green until the light turns red” how many vehicles can start from a stopped position and pass through the intersection before the red light. Then the time for all cars going in the perpendicular direction before the light turns green again. This information must be specific and include all traffic turn lane lights, pedestrian crossing, etc.
2. Then this cycle needs to be multiplied to achieve the capacity for a one hour period to determine the absolute maximum vehicle capacity/hr . . . no more vehicle counts could be added because more vehicles would only add to a growing line that would not pass.
3. But these calculations result in a Absolute Maximum vehicle capacity. This does not allow for any traffic issues like stalled vehicles, accidents, emergency vehicle passage, etc. And to be a proper analysis, it must state what is considered an acceptable running condition like 70 percent or 80 percent, virtually no running condition should have standard operation at 100 percent.
4. Then the current vehicle counts for each roadway segment must be measured for a “today baseline”; how many vehicles are passing on each segment during each hour, between 6am and 9pm.

5. Then the computed impact on the “today” vehicle counts must be made for the Vallco Hills project and needs to include all other current projects, proposed projects, expected projects, and expected growth in a year over year analysis through the year 2040. If Cupertino roads cannot continue to handle expected growth through the year 2040 without exceeding the allowable traffic capacity, then the Vallco Hills project is not acceptable in its current form and size.
6. Another requirement is that the analysis must be complete and cover all developments within a minimum 5 mile distance to all Cupertino boarders because there are many other projects outside of Cupertino that are also adding massive amounts of traffic that will travel across the Cupertino boarders and onto the described Cupertino roads; examples, Montebellow (825 residences at Lawrence Expressway and Monroe), Unamed Project submitted request to Santa Clara (725 residences at El Camino and Lawrence Expressway), Projects on El Camino, Projects in Sunnyvale, etc.

This might seem like a lot of work but it must be done so that Cupertino can truly determine the effect the Vallco Hills project will have on the Cupertino roads over time. To say our current roads can accommodate the Mega Density Vallco Hills project today and not project out how our city traffic will fare due to this project through the year 2040 would be grossly inadequate.

As additional information, I have read in the Main Street EIR that that development will produce 12000 vehicle trips per day and have also read in another EIR that the capacity for a two lane road is 15000 vehicles per day. And although the Main Street EIR does give hourly vehicle trips, we need a hourly capacity for each road segment for comparison. A daily capacity for a road comparison does a disservice to the actual problem that needs to be understood.

Feel free to provide comments on my assertions but by all means, a very complete and very detailed traffic analysis through the year 2040 needs to be done.

From: Liang C [mailto:[redacted]]
Sent: Monday, November 16, 2015 2:11 AM
To: City of Cupertino Planning Dept.
Subject: Comment on Vallco EIR - impact on overflow parking to the neighborhood

RE: Comment on Vallco EIR

Please study the impact of overflow parking demands on neighboring streets, such as Portal and other side streets, and shopping centers, especially the center with JoAnne Frabric and United Furniture across the street.

Please study the impact of overflow parking demands on neighboring streets of the new K-5 elementary school at Nan Allen Elementary site.

It is well known that the parking stalls required for office park, residential or mixed use sites in the zoning code is well below the needed amount, since the zoning code makes an unrealistic assumption on the number of people who uses alternative methods of transportation. As a result, the neighborhood streets often become parking lot for the nearby mixed use sites.

One resident just spoke on Nov. 3rd about Apple employees at Infinity Loop taking up street parking near Lawson. As a result, parents cannot park near school and are forced to double park to pick up students. The local residents do not want the city to turn the street into a permit parking zone since it means added cost for the residents and added trouble for their guests.

The neighborhood streets around Biltmore Apartments are always full 24-7 to the point that even a guest cannot find a parking space.

Apple Campus 2 with expected emplyes of 14,000 and a commitment to provide alternative transportation for 40% of them, including carpool. So, the expected number of single-driver vehicle is 8,000. The number of parking stalls provided in Apple Campus 2 is 10,980 parking spaces, according to its EIR.

The Hills at Vallco provides only 9,175 vehicles, the very minimum required by the Zoning Code. Let's see how much would actually be needed.

The Hills at Vallco contains

- 2 million square feet of office, which will house about 10,000 workers. If 20% car pool or use alternative means (which is already higher than the average from 2010 census), it will need 8,000 parking spaces.
- 800 housing units, which would require 2 cars per unit or more (if multiple young singles share one apartment or any family has a teenager of driving age). Thus, it will require 1,600 spaces.
- 625,000 square feet of retail space. Per 1,000 square feet of retail space is recommended to have 5-10 parking spaces. Thus, 3,1250 to 6,250 parking space is recommended.

- According to "Site Design, Parking and Zoning for Shopping Centers" from Planning.org: "the recommended standard of 10.0 car spaces per 1,000 square feet of net retail area (or a parking ratio of 3:1, i.e., three square feet of parking area for every one square foot of retail sales area)."
- Loss in Value due to Inadequate Parking: "The shopping center could accommodate the peak holiday shopping during Thanksgiving and Christmas when the merchants make up to 50% of their profit for the year. If a business can not accommodate its customers during that time, then the property may not have adequate parking and the property may suffer from obsolescence. Other studies have been done which show a need of 5 parking spaces for every 1,000 square feet of building area."

The total parking spaces needed is 8000+1600+3125 = 12,725.
The 9,175 parking spaces at Vallco is only 72% of needed space,

When other shopping center needs extra parking, it overflows to the next one or two streets.
When The Hills at Vallco overflows, it will overflow to the next 10 to 20 streets since the project is more than 10 times bigger than any other shopping mall in Cupertino.

Since there is little mass transit and even less ridership in Cupertino, any assumption of the number of visitors or workers who take public transit has to be realistic.
Note that even in San Jose where there are lightrail, the ridership is still low since the VTA transportation network does not cover enough areas so that most people still had to drive.
Any solution to solve the last mile problem is still experimental, such as Uber or Lyft. The EIR impact analysis should not be based on unproven future trend. It should be based on real data and real transportation method available today or in any committed plan.

Therefore, the effect of overflow parking from The Hills of Vallco needs to be studied using realistic data in every day situation and also worst case situation during Christmas shopping season.

The impact of difficulty of parking on the accessibility of retail shops and other amenities at The Hills at Vallco should be studied.

The impact of difficulty of parking on the willingness of customers to visit shops and other amenities in The Hills at Vallco should be studied.

The impact of difficulty of parking on the sales volume of the shops during Christmas season when most retail shops make 50% of their sales should be studied since it affects the sustainability of the shopping center at Vallco.

The impact of difficulty of parking on community events, like Farmers' Market, hosted at The Hills at Vallco should be studied.

Where will the Farmers' Market be held? Since most farmers sell their produce right off their truck. Would there be space for the farmers to drive up their truck into the Farmers' Market?

Liang Chao

From: VERONICA LAM [mailto[redacted]
Sent: Monday, November 16, 2015 7:23 AM
To: City of Cupertino Planning Dept.
Subject: Vallco project

Dear Cupertino planning committee,

I am writing to you to provide comments on Vallco project. I am the neighbor of Vallco and I have a concern on this project. The single family homes existed before Vallco was first built When Vallco was first built, they had put into consideration on the security, the privacy, the noise level, the light impact, the pollution for their neighbor. Therefore the buildings were set back, the building height was low, trees were grown, wall was build to ensure the qualify of life for their neighbor. With the new Vallco project, I do not expect anything less, during and after the completion of the project.

As their neighbor, so far I have not received any detail information from Hills, as to the height, the set back and the plans to address the concern of the neighbor. All I received from them are fliers with unrealistic designs, e.g. "a so call roof lawn and trees, leaning against buildings". How big a tree can they grow on it? With the draught, should they put in any lawn? With a tilted roof garden, will there be safety issue during bad weather, e.g. landslide, trees slide? Why not just keep or replant the current trees at Vallco at ground level. Also the double row of ash trees along Stevens Creek Blvd at Vallco area should stay. They provide shade for the bikers and pedestrians during most of the years. Please preserve them!!

There are few trees at "Main Street", it is just concrete cement against the side walk, no shade.

I do not want our Mall or so call shopping area (if there are still as many as before), to become Main Street.

Hills should provide accurate detail information to their neighbors and to the Cupertino residents.

By the way the fliers provided by Hills only has one check box, that is "Yes, I support the Hills at Vallco", due to this reason I had not provide comments to them. I do not want to be counted as Hills supporter without detail and accurate information.

Regards,
Veronica Lam

From: Germaine Fu [redacted]
Date: November 16, 2015 at 8:07:22 AM PST
To: <piug@cupertino.org<mailto:piug@cupertino.org>>
Subject: Vallco: Protest against proposed site of new elementary school on N. Portal Ave

Hello,

I am writing as a resident of the Cupertino neighborhood in which Sand Hill has proposed to construct a new elementary school as part of "The Hills" redevelopment project for Vallco. I am writing to protest against the construction of a school at the former Nan Allen Elementary site (on North Portal Ave) for the following reasons:

1. Traffic congestion: As Collins elementary and Lawson middle schools are already located in this neighborhood, traffic is already quite congested and cannot accomodate another 700-student school. Morning drop-off and afternoon pick up times already result in severe congestion and difficulty for residents trying to exit the neighborhood for work commutes.

2.Encroachment of the Collins campus: As a parent of 2 students currently enrolled at Collins Elementary, I attest that space on the Collins campus is already severely limited. The children must rotate use of the lunch tables and playground during lunch/recess periods, and most of the classrooms are in portables. The size of the field has been compromised by recent construction of a Cupertino-owned baseball diamond. It is not possible to accomodate sharing the already limited space resources with another Elementary school that would be located right behind the Collins campus.

3. Space limitations: There is not enough space at the former Nan Allen site to accomodate a 700-student school. The Nan Allen elementary school was a special needs school with less than half that number of students. Further, the space is currently occupied by Bright Horizons day care. It is nonsensical to propose bringing another school campus to this already crowded location.

I urge the EIR team to consider the many detrimental impacts to the students and residents of this neighborhood, and reject the proposal by Sand Hill to construct an elementary school at the former Nan Allen Elementary site. Instead, a new elementary school should be built to accmodate the new residents of The Hills, and be located on The Hills' Vallco property, rather than behind the Collins campus.

Best,
Germaine Fu, Ph.D.

From: Liang C [mailto:[redacted]]
Sent: Monday, November 16, 2015 9:00 AM
To: City of Cupertino Planning Dept.
Subject: Comment on Vallco EIR - impact of heavy rain

RE: Comment on Vallco EIR

Although it doesn't rain much in Silicon Valley, during rainy season, there might be heavy rain, which results in flooding in different areas of the City.

The Hills at Vallco will cover the entire 52-acre of the site with concrete. When it rains heavily, all of the rainwater from the 52-acre would accumulate and it may become a torrent.

Please study the rainwater collection system to see if the capacity is sufficient to cover the heavy rainfall. In case of even heavier rain, please study the impact of an overflow from rain water collection system.

Since the rooftop has varying height from 114 feet to 65 feet at street level, please study the impact of heavy rainwater overflow that might cause more slippery road condition on Wolfe Road and other impacted roads.

On the greenroof slope at west side, which goes from street level to 45 feet and then 65 feet in a short distance, please study the impact of heavy rainwater overflow onto the Perimeter Road.

Please study the safety of bike paths during heavy rain. Is any bike path in danger of being flooded with rainwater on its way to drainage system.

Please study the impact of traffic condition during heavy rain when most people won't bike or walk or even take bus to work, since most bus stops do not have anything to protect waiting passengers from rain.

From: Liang C [redacted]
Sent: Monday, November 16, 2015 9:25 AM
To: City of Cupertino Planning Dept.
Subject: Comment on Vallco Specific Plan - Underground tunnel is for bicycle and pedestrians, not for parking

RE: Comment on Vallco Specific Plan

The underground tunnel under Wolfe Road should not be used for parking spaces, as the Parking Drawing of The Hills at Vallco shows.

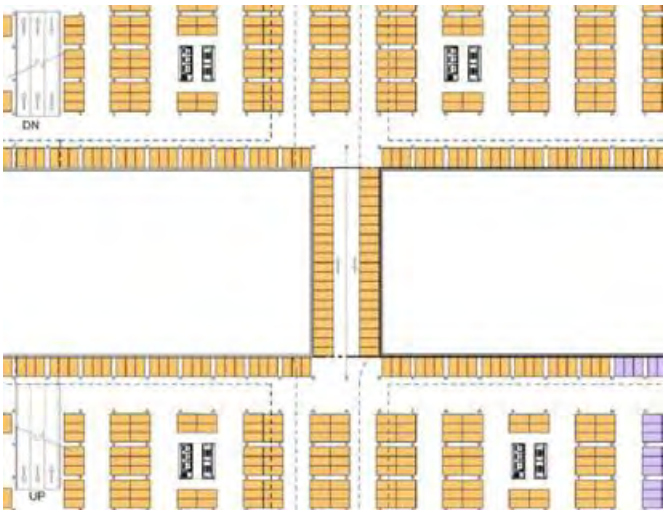
The tunnel currently has two car lanes and one more lane used for pedestrians and bicycles.
It is a common path for bicyclists to use to get across Wolfe to avoid traffic and the danger of Wolfe Road.

Vallco Specific Plan should include a policy to preserve easy access for pedestrians and bicyclists through the tunnel. It is an important part of a walkable and bikable city.

Below is the diagram from Page 2 of the Parking Drawing.
Not only there is no path way for pedestrian or bicycle to use. And the tunnel is not easily accessible by any bicyclist or pedestrian who need to cross Wolfe Road.

The underground tunnel has been used for parking spaces. It will have to be widened from its current width to provide two rows of parking.

The underground space of a public road belongs to the public. It can only be used to provide ease of access for the public. It should not be used as parking spaces at all, and not parking spaces for a private project.



Liang Chao

From: Mette Christensen [mailto[redacted]
Sent: Monday, November 16, 2015 11:14 AM
To: City of Cupertino Planning Dept.
Cc: [redacted]
Subject: Hills-at-Vallco EIR Scoping Comments

hi

Please find below areas of study to be included in the scoping of EIR for the Vallco project.

1.
It is clear that Stevens creek already has more traffic even without Main Street and Apple Campus open yet.
As Tantau is blocked and the new light has been installed at Stern/stevens creek/new apple office/Ihop, Judy Avenue has seen a tremendous increase in through traffic. Cars that turn onto Judy Avenue from Stevens Creek to get out of the congested traffic on Stevens Creek. This is particular in the afternoon commute hours.
Please investigate how to mitigate traffic issues on Judy avenue and other Rancho/Loree streets by implementing speed reducing slowing measures such as round abouts in intersections as well as traffic bumps etc to keep the neighborhood free for speeding cars. I am sure we cannot avoid increased traffic in the Rancho area but we can avoid speeding.

2.
Please include measures to get students and commute traffic from San Jose, Santa Clara and Sunnyvale into the cusd and fuhsd schools where impact of up 29000 extra trips in and out of vallco per day is going to have a tremendous impact. Figure out ways to ease congesting from beyond safeway at the stevens creek/lawrence intersection all the way up to Wolfe on stevens creek. as students need to get to middle and high school. The impact from increased traffic is not only within the borders of Cupertino but will extend beyond the city boundaries and should be determined how this can be enhanced.

3.
Figure out how to add and increase flow through the 280 on/off ramp on stevens creek for both north and southbound 280 traffic as a lot of traffic from vallco would come down stevens creek to get onto 280 and lawrence. it is simply not enough to have 2 lanes on the on ramp from stevens creek to 280 south. Also a dedicated turn lane must be added on stevens creek to ease access to 280 south coming from vallco.

4.
Please examine the infrastructure for sewer, storm drains, electricity, gas etc to allow for continued service and no break down due to over capacity of exisiting system

5.
Please study the impact on all the trees that are now bordering stevens creek, wolfe, and perimeter road. As with Main street the amazing beautiful 2 rows of trees are all gone - cut down to expand the road and small new trees had to be replanted. What is the impact to the existing trees around

vallco?

6.
Please study the impact of traffic increase through cupertino from vallco via vallco parkway, tantau to sunnyvale's birdland district, kaiser hospital and up homested getting through the wolfe / homestead intersections. Both on bike, car and pedestrians - with tons of apple busses going in and out of their transportation center - how are residents using these streets to get to produce markets, after school activities in cupertino on homestead and in our neighbor city sunnyvale going to get through this increased traffic?

7.
what is the impact of demolition of the current vallco site? the impact of dust and soil flying right over the rancho area from the apple construction site it is a known fact that there will be major impact during this phase. What materials are to be brought out and pollution from this work? Asbestos? dust? etc? Please study impact on environment, health risks (asthma etc) and make sure to include schools, neighborhoods in vicinity as well as further away based on direction of wind spreading the dust/pollution.

8.
Construction traffic and hauling away dirt for the under ground level parking garages - how will that affect the community and for how long? We have hard facts from apple construction that construction traffic has brough major impact on surrounding streets and pollution/dust level from hauling materials and dirt around. Include study of emergency response time getting to freeway accidents or to accidents on the homestead side of the city as well as impact from traffic congestion during and after the construction

9.
Please study the impact of retail in the city as to options for residents to be able to stay in cupertino rather than going out of town for shopping. how will it be possible for mom and pop shops to keep renting shopping space in the city if the city is promoting chains and stores that can afford higher rent.

10.
please study tax revenue for missing sales tax as well as missing property tax as units proposed will be rentals that will not end up paying property tax to schools in cusd and fuhsd

11.
please study impact on day care over crowding, elementary, middle school and high school impacts of new students. Include in the study impact of adding a middle school, elementary school as well as day care facilities in the project rather than filling existing schools.

12.
Please study impact of a successful retail center as big as the current venue by having a succesful record retail management firm run the business and rather than the incompetent people who have been doing so until now. What would the impact to the city and the residents and the neighboring shopping malls be if vallco was as promised turned into a successful shopping mall. impact with respect to city tax, traffic, housing, both now and in the future as not adding office space will not

increase the housing need for that project.

13.
please study the impact of adding 389 housing units with as much retail as possible with no office element - how would that impact the community with regards to infrastructure, social and economic welfare. Please compare that in the study to the full scope that the developer wants to put in on that site.

14.
Please examine the feasibility and economic background of developer and financing of the project to make sure it can be completed and will not end up as an abandoned project just like the developers other project in Sunnyvale. please make sure to include subcontractors, architects etc as well as what changes in the economy could do to the project and it not being left half done as this happened to the project across the street when it sat empty for years on Vallco parkway. It is very important that this monster projects economic stability is examined and for that matter all the involved contractors and consultants

15.
Please include research on the roof and how that is possible to be built in seismic area and get the water it needs to survive. What are impact of the developer not maintaining the roof and what would happen if it turns out that the roof cannot be used at all? what is the impact of project descriptions and promised as the biggest park in the city if it cannot be used at all? and only 10% ends up being able to be accessible? what is the impact on residents not having park land as is planned for and desirable according to the city's general plan ?
what about heat under the roof during summer months when there is no upward flow available. Include studies on electricity usage and sustainability and co2 emissions from this construction with a covered roof for the entire site.

16.
Please look to the future and scope out where all the employees are going to live and how many housing units the city's will be responsible for providing over the next 50 years following the addition of 2 mill sq ft of offices.

17.
Please examine the possibilities and resources for public transportation as well as what pressure the city can put on VTA and caltrain to add rail service to Cupertino and neighboring cities following the addition of so many new office sq ft.

18.
Please include in the report the impact on or rather not setting up setting up public transportation to include student transportation to and from CUSD and FUHSD students coming from the attendance area in Santa Clara and San Jose getting to Hyde and CHS.

19.
Please include studies around walking and biking to / from school and how much more dangerous this will become with up to 29000 more cars on the street daily in the vicinity of the project.

20
Please examine the traffic flow around the new nan allen site, collins and lawson where there is only 4-5 exits in to and from that part of town. How will traffic flow, parking during drop of and pick up? access through that area as Blaney will become a new thorough fare as wolfe is going to be backed up and cannot be used to get from one part of town to the other as both wolfe and tantau is going to be parking lots crossing 280 as these two streets will be main transportation for project and apple site.

21.
please examine if it is needed to add a new bridge across 280 to allow for better flow across the city

22.
please examine if an elevated bridge or underground tunnel along Stevens creek will be needed to get pedestrians and bicycles across 280 and Lawrence express way. In order to eliminate cars travelling this route from San Jose/Santa Clara with students, better infrastructure must be provided for pedestrians and bicycles to cross this dangerous intersection which is the reason so many people are not allowing their kids to get to from school other than in cars. the impact of now providing this infrastructure with 29000 new cars being added from the project in addition to 9000 cars from apple project as well as 100's of busses will be overwhelming hence, project need to provide ways to decrease cars travelling on the stevens creek corridor.

23.
Please examine what the acceptance rate is for the residents of Cupertino? Please make sure that the impact of referendum put on by the citizen can end up taking place. What will the development look like if delayed by such a measure? how will the residents know about it without the CITY having public meetings rather than the developer only providing info one way for the project? residents are very negative as they have no way to ask questions and get answers - this EIR scope is yet again only one way process. no public forum to discuss issues

24.
Please study and make it clear to residents what the zoning is and why city council even has rezoned based on what dependencies. A specific plan to be adopted. How and what makes it adopted by the residents? what is the determining factor for acceptance of the specific plan for zoning to change? please make sure to have some measurements for acceptance and study how different acceptance levels will have and could have different influence on the project.

25.
Please study different uses of the project as to what is feasible and doable with regards to public's access to use the roof for a meeting, the community plaza, community room, innovation center and other public access areas. it would be very important to study how and determine what these different usage scenarious should and could look like. who gets to decide who can use? parks and rec? developer office and decision making - how can you then be assured that it is public? playground in private park - who is determining access and usage ? please study the impact of the public areas being administered by different management set up such as public parks and rec, private developer, public school administration etc.

26.

Please study what the impact would be on moving and construction for the current renters and entertainment centers. Would they even be in business if their venue has to be closed for years to be rebuild in a different place? what would the impact be to these businesses and are they at all interested in relocating. Who would run these businesses and would they be able to granted that rent for their venue would be much higher with the new development? what would the impact tot he city and surrounding cities be if there was no bowling, no ice ring? etc

27.
What would the impact be of granting the developer that blackberry golf course to build the project there and move the golf course and park land to the vallco site? impact to traffic?, growth, housing, social wellbeing as well as shopping in the west end of the city who severely is missing shopping and offices in that corner of the city? please examine the scope and impact of providing this as an option to benefit everybody in the city.

28.
Please study impact of too little parking available within the project and impact on neighborhood streets when parking is not available for residents, employees and shoppers to park. Where and what streets will they start using and what is the impact on these neighbors around the site? Please study the impact of not having easy access under and through the site as it is currently possible. How will cars, pedestrians, and bikes get through from Vallco parkway to perimeter road next to the joann's / chuck and cheese shopping site? currently that tunnel under AMC is heavily used as a cut through as traffic on stevens creek is horrible. What is the impact of not having an easy way to get through the project?

29.
Please study pedestrian and bike safety travelling through and into and out of the project. How do they get across / through the project? Please study the impact of circulation above ground (roof), surface area / streets through the project and under ground in the parking area. Please study why and how flow of "soft" traffic (bikes, pedestrians, skateboarders etc) will be allowed to pass in the parking area where streets are used as parking spaces as well. Make sure to include risk analysis of traffic accidents involving soft traffic users. As Cupertino high School is very close the amount of foot traffic from this school of students in ages 13-19 will increase hence, make sure to study and include analysis on impact of increased risk with more traffic and visitors arriving by feet.

Mette Christensen
[redacted]

From: Mona Schorow [mailto:[redacted]
Sent: Monday, November 16, 2015 11:49 AM
To: City of Cupertino Planning Dept.
Subject: Question about the Hills-at-Vallco EIR

Traffic affects air quality, commute times, pedestrian safety, cyclist safety at a time. Main Street and the Apple campus will be coming online. I would like to see an objective traffic analysis of the Wolfe X 280, Stevens Creek X Lawrence in particular, and all bottlenecks in Cupertino, in general. Can the traffic densities and the likely wait times be projected?

We seem to be approaching gridlock during commute times but we lack the infrastructure (subways, buses, taxis) that other urban centers have.

There is probably useful information about this somewhere — do you know where.

Concerned resident,

Mona Schorow
[redacted]

From: Liang C [mailto:[redacted]
Sent: Monday, November 16, 2015 12:27 PM
To: City of Cupertino Planning Dept.
Subject: Comment on Vallco EIR - traffic based on realistic data

RE: Comment on Vallco EIR

From Parking-Drawing.pdf submitted by The Hills at Vallco, here are the parking spaces available.

Total parking spaces = 9,175.

Office: 5033; Retail: 2,500; Residential: 1,427; On-street parking: 215.

The number of parking spaces for the 10,000 workers is apparently insufficient.

Even using the low estimate of 8,000 workers (250 square feet per worker), 5033 parking spaces only provides spaces for 62% of 8,000 workers.
5033 parking spaces only provides spaces for 50% of 8,000 workers.

And some more space has to be reserved for outside visitors for the 2 million square feet of office. So, the actual number of spaces available for employees would be even lower.

If the EIR will assume that some of the workers will use other modes of transportation, such as light rail, biking, walking or carpool, please use realistic assumption that's reasonable.

The 2 million square feet of office will not have only one or major employers. There could be 10 or 20 or even 200 office tenants. If assumption is going to be made about any shuttle service provided by the office tenants, it has to be based on actionable plan that's committed in the Development Agreement. And all office tenants have to be disclosed of the limitation and sign onto any traffic management plan.

Based Apple EIR, even at Apple Inifinite Loop, where the culture promotes biking and other modes of transportation, 72% of the employees arrive in single-occupancy vehicle, another 10% arrive in carpool. So, still the number of parking spaces needed is 82% of the employee population.

With Apple Campus 2, Apple has committed to reduce the number of single-occupancy vehicle trips to 60% with the best efforts. The Hills at Vallco with simply an office park with any number of tenants cannot assume to do even better.

If any assumption is made about the number of single-occupancy vehicles or carpools, please provide realistic data to back it up.

Apple EIR also pointed out the difficulty of using public transit: (Page 38 of Apple EIR Appendix B Transportation Impact Analysis)

> "Although there is a fair amount of transit service within the vicinity of Apple Campus 2, there are no easy public transfers to existing high capacity transit corridors such as Caltrain commuter rail and various bus lines along El Camino Real. Express transit services typically operate in directions that inhibit travel using solely public transit to Apple Campus 2 from residential areas along the Peninsula. Furthermore, the poor walkability of the streets around the project site, due to higher traffic volumes, discourages people from walking longer distances to transit stops or stations.
>
> To make some of these Caltrain stations more accessible, Apple provides daily shuttle service to the Lawrence and Sunnyvale Stations. The travel time on Apple shuttles between these Caltrain stations and Apple Campus 2 is approximately 15 minutes to 20 minutes.
>
> Most commuting cyclists travel at a rate of about nine to 10 miles per hour, meaning the Lawrence, Sunnyvale, and Santa Clara Caltrain stations are located about an 18, 23, and 28-minute bicycle ride away from Apple Campus 2, respectively. Only the Lawrence Caltrain station has continuous bicycle infrastructure that connects it to Apple Campus 2 in the form of Class II lanes along Wolfe Road, Reed Avenue, and Aster Avenue."

The condition for taking transit and biking or walking hasn't changed, since Apple EIR.

If any assumption is to be made about the percentage of employees who are able to use public transit or walk or bike, please use realistic data to back it up.

If shuttles are going to be used to transport employees or shoppers to The Hills at Vallco, please study the impact on the parking facilities at each pick up location. Are there sufficient parking spaces today? How many more parking spaces will be necessary for the shuttles of The Hills at Vallco?

A large percentage of passengers riding buses in Cupertino are the 30,000 students at De Anza College. They are provided a free bus pass to encourage bus usage, since it is already charged as a part of their tuition. They are also single young adults who do not have other family responsibilities so that they have to be at multiple places in one day at a fixed time.

So, any statistics about bus ridership should only account for non-student population, unless The Hills at Vallco is going to hire only single young adults and provide them with bus passes for free.

Liang Chao

From: Liang C [mailto:[redacted]
Sent: Monday, November 16, 2015 2:15 PM
To: City of Cupertino Planning Dept.
Subject: Re: Comment on Vallco Specific Plan - underground and air right over Wolfe Road

I misread the diagram.
The tunnel between the east and west parking garage would in fact be a new tunnel, in addition to the tunnel along Perimeter Road. The tunnel along Perimeter Road will remain.
Page 6 of Existing Condition shows the existing easement, which was granted to a previous Vallco owner in exchange for another easement (air and underground right) near I-280 for a future light rail station. But Sand Hill does not own that property.

Page 8 of Existing Condition shows the proposed easement: Sand Hill wants to expand the air right over Wolfe to almost an entire block.
Pink blocks shows easement for both underground tunnel and air rights of unspecified depth and height.

Then, we would request that any public land for private use should be used only to the benefits of the public to provide ease of access.
Any air right or underground right should not be granted without a fair exchange or a fair rent, adjustable to inflation.
If only tunnel is required for The Hills at Vallco, the easement should not grant the air right in the agreement without justification, such as the two pink boxes in the diagram.
If the air right is granted, the minimum and maximum height should be specified so that only the air right within a given height is granted.
If the tunnel right is granted, the minimum and maximum depth should be specified so that only the tunnel right within a specified depth is granted.
No structure from the easement either in the tunnel or the air should be counted towards the required provision for the projects, such as parking stalls, or retail shops.

Thanks,
Liang

> On Mon, Nov 16, 2015 at 9:25 AM, Liang C [redacted] wrote:
>
> RE: Comment on Vallco Specific Plan
> The underground tunnel under Wolfe Road should not be used for parking spaces, as the Parking Drawing of The Hills at Vallco shows.
>
> The tunnel currently has two car lanes and one more lane used for pedestrians and bicycles. It is a common path for bicyclists to use to get across Wolfe to avoid traffic and the danger of Wolfe Road.

Vallco Specific Plan should include a policy to preserve easy access for pedestrians and bicyclists through the tunnel. It is an important part of a walkable and bikable city.
Below is the diagram from Page 2 of the Parking Drawing.
Not only there is no path way for pedestrian or bicycle to use. And the tunnel is not easily accessible by any bicyclist or pedestrian who need to cross Wolfe Road.
The underground tunnel has been used for parking spaces. It will have to be widened from its current width to provide two rows of parking.
The underground space of a public road belongs to the public. It can only be used to provide ease of access for the public. It should not be used as parking spaces at all, and not parking spaces for a private project.

Liang Chao

From: stacy wilson [mailto:[redacted]
Sent: Monday, November 16, 2015 2:20 PM
To: City of Cupertino Planning Dept.
Subject: comments on the scope of the EIR for Sand Hill's The Hills proposed development

I would like to add my voice to the others who have commented on the proposed development of Vallco by Sand Hill.

My concerns are mostly around traffic congestion and the massive impact on Cupertino schools, although I also think the impacts on sewage, electrical system usage, public library usage, increased need for street cleaning (littering will be part of the problem with this development), air quality (additional local automotive exhaust), and student safety while walking or biking to school, need to be assessed and quantified as much as possible.

People are very concerned with the future influx of elementary school students. The student density at the proposed elementary school site is far more than the site should accommodate. I don't believe the long-ranging impact has been addressed- there are needs for more teachers, more playground space (particularly with the increase in childhood obesity in the US), more library space, more books for that library, cafeteria space, and **just as importantly**, the same concerns when those students leave elementary school and move on to middle and high school. Those concerns need to be addressed and monetarily quantified. Right now, all I've heard is the proposed mitigation of adding on to a current elementary school, and nothing about how those students will be dealt with in the next few years until things reach an equilibrium. That NEEDS to be addressed, and I'm sure it is quantifiable. It should not result in already impacted public schools being forced to absorb even more students in portable buildings.

Please also quantify the impact of increased traffic, and how it can be (but preferably WILL BE) addressed.

The impact on the existing houses nearest Vallco should be quantified. The developer should not be given gifts by the city at the expense of current residents- who *never* expected to be in the shadow of 7 to 9 story buildings replacing the local shopping center.

Thank you,

Stacy Wilson
[redacted]

From: Sanjeev Sahni [mailto:[redacted]
Sent: Monday, November 16, 2015 2:37 PM
To: City of Cupertino Planning Dept.
Subject: Concerns about Vallco Project

Hi Planners,

This is regarding the Vallco Prokect. My concerns are:

1. School being built - Seems small sized campus

2. Maintenance of the overhead park being proposed

Sand Hill has a history of not delivering. How will it be ensured? May be a financial guarantee for a certain amount (Bank Gaurantee) will help.

Thanks

_____

Sanjeev Sahni
[redacted]

From: Jon Ramos [mailto:[redacted]
Sent: Monday, November 16, 2015 2:37 PM
To: City of Cupertino Planning Dept.
Subject: Vallco Hills (environment information)

November 16, 2015

Good Afternoon,

After shopping at Vallco for years, enough of the cement jungle.

We need an entirely new development, I'm supporting the current plans for a new development.

I like the fact, more greenery will be in the new development.

One other addition I really like, is the addition of at least 350 townhouses/homes.

Jon Ramos
[redacted]

From: Sandra Sotoudeh [mailto[redacted]
Sent: Monday, November 16, 2015 2:39 PM
To: City of Cupertino Planning Dept.
Subject: Impact on Lynbrook High School

This project is impacting my high school causing redistricting and over flow to Lynbrook. Please include a new high school instead of pushing this onto the Lynbrook children, school and neighborhood. The traffic is bad enough ratios too high in classrooms and new students will potentially change school performance driving down home prices. More study and other ideas need to be done to consider where new students will be placed. We need a new high school instead of negatively itmpacting students and residents.

From: vik m [mailto:[redacted]
Sent: Monday, November 16, 2015 2:53 PM
To: City of Cupertino Planning Dept.
Subject: Concerns about THE HILLS AT VALLCO

Hi,

Please take into account the following in reference to above project

a) Since our city is expecting big change when Apple 2 campus goes functional, we should wait to see traffic and other issues before rushing to approve Valco.
Please note only 7% of Apple employee work/rent in Cupertino (I am one of them)

We are still OK for 2020 GPA so there is no urgency to do this.

b) We can bike to school/work but there are classes for kids at Sunnyvale/Santa Clara etc.
With traffic increase , it will be enormous additional traffic.

c) Since this is very important issue for resident, there should be public vote.

Thanks,
Vikas M
[redacted]

From: Joan Lawler [mailto[redacted]
Sent: Monday, November 16, 2015 2:55 PM
To: City of Cupertino Planning Dept.
Subject: Fwd: Concerns and Suggested Alternatives for the EIR for The Hills at Vallco

Dear Planners,

There are the **fundamental concerns** for our City in my view.

(1) **Water usage** (this is not just a Cupertino concern) but it the most important. Included in this concern is the water usage during of several years of development, as well as water usage once the project is complete. A west-facing slope will get a tremendous drying sun, for instance.

- Can we get **true independent experts** to advise the City on the efficacy of the Sand Hill plan for the greenery parks and walks and landscaping?
- Can we have a smaller "water footprint" with a different sort of project?
- How can the City make sure the green roof part of The Hills plan doesn't get cancelled down the line?

(2) **Sewer capacity**. It will be a disaster if this collection of very tall buildings, with all the people who will be living and working there does not have the sewage capacity to carry away all the sewage.

- Will there need to be expensive expansion to the sewers and is that capacity possible to provide given our current system?
- Who pays for that? Taxpayers? All the subscribers to our city's sewage system? The developers?

(3) Retaining existing **Heritage trees**. It takes a long time to grow dozens and dozens of gorgeous trees like surround Vallco now. The trees give us clean air, cooler city temperatures, safer places to walk in the increasing summer heat. We need more trees and not to lose the ones we have. That has been the City's view, given the costly permits for residents needing to cut down their trees. Grass, native plants, and vineyards don't act as a sufficient substitute for the benefits we get from our mature trees.

- Are we going to let Sand Hill's plan disturb the existing trees?
- Should the City require that any replacement trees are large, shady and plentiful in keeping with Cupertino's aim to **increase** our green cover?

(4) **Traffic impact** from the recent and current developments near Vallco, along with the region's traffic increase due to strength in the economy has given us city streets that make trips around town take much longer in recent years. Air pollution is an issue. Wasted time sitting on clogged roads is an issue. Any plan for Vallco is going to cause an increase in traffic. Any plan. But, the impact of the current proposal seems way over the top.

This suggests that a very important part of the EIR is to define what amount of traffic is acceptable. Any traffic predictions above that amount needs to trigger a comprehensive regional mass transit solution to be provided **before** a permit for The Hills at Vallco construction can begin.

- Will a mass transit solution be possible to accomplish before construction begins? Apple will be making a huge impact in about a year, so no action on traffic solutions can come soon enough.
- What is the Sand Hill's exact plan for a Transit Center? Bus pullouts doesn't seem to offer anything new or better. Can the EIR spell out something that would be more effective?

- What about the Sand Hill shuttle promise? What would that be? What routes? What frequency? Will the shuttle plan be coordinated with the mass transit solution? For what duration will the shuttle be committed?
- How can the City get a firm and sufficient shuttle service that doesn't get cancelled once it becomes inconvenient to Sand Hill?

(5) **Housing growth** must benefit the City, not just satisfy the ABAG requirement. At Cupertino prices, most likely new residents will have children and will desire to send their children to Cupertino schools. But, we can get parcel taxes from housing that is sold because the homeowners will pay taxes that help the schools.

I recognise that it is not legal to use school crowding as a reason not to build housing. Still the fact is the school impact is great and real and mostly unsolvable because of limited funds and school district lands.

So, traffic, water, and sewer issues, and funding for city services provide reasons enough to be very careful what type of housing to build and where.

- Will the housing at The Hills be sold as condos or be apartments that don't benefit the City's tax base and therefore don't contribute to funding the schools?
- Will the housing for seniors that is part of the plan be sufficient to keep the school impact down? How will the senior housing be kept senior housing over time? Will the senior housing be guaranteed to be built?
- Will any of the housing be affordable for those who serve the Cupertino community, such as teachers, firefighters, city employees, restaurant workers, etc.?
- Will the housing benefit the community by housing Apple employees who will not need to drive to work? If so, how will the Apple residents get to work across the huge and unwelcoming overpass of Wolfe over 280? Bicycle and pedestrian bridge? Shuttle?
- Is there any way to promote Apple workers move to The Hills to help address our traffic issues? Is there any reason to believe that The Hills will attract workers who will not need to commute by car? What will The Hills do to specifically entice young Apple 2 workers who may not need to drive to work and will not likely need our schools?

(6) **Office space** in such a huge amount. There doesn't seem to be any evidence that so much office space is needed at this time at that location. There are/will be thousands of new offices at Main Street and Apple 2. Some of Apple's current office spaces in Cupertino will become vacant in time, allowing business to occupy those.

There are serious issues with the City approving any more office development in Cupertino. They include (a) the traffic increase from additional office workers and (b) the resulting increase of ABAG requirements for more housing to match the ratio of housing to jobs, which results in a vicious cycle of increase to housing, causing even more traffic. We need to do what we can to keep our City's requirement for more housing to a minimum, meaning limit the new offices (job) to avoid making the traffic and school crowding issues even worse. (Please refer to comments on housing in point (5).)

- Has there been any request from Apple for more office in their neighborhood? Apple is spreading into San Jose and Sunnyvale. They are not waiting for more Cupertino offices it seems. With many possible locations for office development within Cupertino and in the surrounding cities, why would the Vallco location be the best choice for the City to approve?

- Where would Cupertino ever be able to provide enough housing to meet the requirements coming from such another huge increase in jobs?

(7) **Tax benefits** to the City of Cupertino.

- Can we quantify which are the most beneficial to the funding of our city? More office? More apartments? More condos? More retail?
- Can we quantify the way each of these adds to requirements and cost for city services?

(8) A **healthy city needs a good balance** of retail, restaurants, entertainment, cultural opportunities, parks. A healthy city needs all the possible commute alternatives to cars/roads, alternatives for walkers, bicyclists, and mass transit. These alternatives need to provide for all age groups and abilities in our community. These alternatives need to encourage not just our residents, but alto all those who come to shop and work in Cupertino.

Balance in the City also includes making a place for various economic levels and all age groups. Balance includes various professions among working adults. Achieving these balances will **make Cupertino great** in a way that **means far more than being a place where Apple Computer decided to put its headquarters or Vallco decided to become The Hills**!

- How do we address the need for various commute alternatives to driving?
- How do we provide a healthy balance to our residents and workers to minimize their need to drive outside the City?
- What amount of retail, office, entertainment, culture and housing do we have now?
- What sort of balance is desirable for the benefit of all age groups in the community?
- How can we encourage a developer to contribute to the city's needs and lackings, rather than just to fill their own bank accounts?
- How do we attract young professionals to live where they work?
- How do we retain seniors and retired professionals so they may give back to Cupertino after spending decades benefitting from what the City has to offer them?

Study what Palo Alto and Redwood City have found to be the mistake of allowing too much freedom for developers to decide what to build. Both cities have difficult problems and are bringing a halt to the extensive development of too much, too fast. Let's let Cupertino learn their lessons before making their mistakes.

<u>Alternatives to The Hills at Vallco as proposed</u>

I believe that an honest and impartial enquiry along the lines stated above would lead us to wait for a better proposal than The Hills at Vallco.

Retaining the retail zoning for Vallco seems wise and allows us to make a better choice down the road.

It is a shame that the retail that was surviving at Vallco is being run off, as though the community doesn't care.

The sooner Vallco can pull out Plan B, a retail solution, the better in my mind.

- We want to have a place for young and old, indoors and outdoors, entertainment, food and drink, and lots of shopping choices.
- Perhaps a medical clinic and a sports and fitness center. Perhaps a pool. Parks. Gathering places.

- And lots of shopping. Stores that are hip and in current vogue. Shops for all ages. Shops that can provide for our basic needs at reasonable pricing (we pay so much for our houses, so we need to shop for value).
- In the interest of keeping Cupertinos shopping in Cupertino and paying tax dollars in Cupertino, we need to create a local alternative to the shopping found in surrounding communities.
- People shouldn't need to drive out of town for shopping, contributing to air pollution.

The Sand Hill company ought to decide to partner with one of the great mall developers or get such consultants and create a retail mall that will appeal to this community full of people from several cultures.

Sand Hill can become a friend to Cupertino and provide what Cupertino lacks, even though the profits may be somewhat reduced. That way Vallco becomes what makes Cupertino great.

We just don't **need** all that office space!

Best Regards and with respect and understanding of the difficulty and importance of your decisions,

Joan Chin

From: Hari Narayanan [mailto:[redacted]
Sent: Monday, November 16, 2015 3:03 PM
To: City of Cupertino Planning Dept.
Subject: Feedback about the Hills at Vallco

Dear Cupertino Council

I am a long time resident of Cupertino. I have seen the city slowly change over the last few years. The last one on the horizon is the Hills at Vallco by Sand Hill property. This is in development.

I have a few concern about this that might affect the Quality of Life of the residents and make the project a disaster instead of a boon to the city.
Sand Hill also has a reputation of not finishing their projects or not finishing according to what they signed up for.

The traffic impact and the pollution due to the Hills at vallco will be disastrous. Our schools are already over crowded. This is going to put even more stress on the already "tearing-at -the seams" schools.

There is no thought given to public transportation and also to make Vallco a center for Public transportation.
With the Apple building and the increased construction along Stevens Creek and Wolfe this is a just a time bomb waiting to explode.

Please take a serious look at this Project and do what you think is the best for the City and its residents. Money should not be the only motivation.

If we take a look at our neighbhor, Saratoga, they seem to be doing fine without any massive construction projects in their city. We can probably learn from them.

Thank you
Hari Narayanan

From: Laura Chin [mailto:[redacted]]
Sent: Monday, November 16, 2015 3:09 PM
To: City of Cupertino Planning Dept.
Cc: Kyle Rader
Subject: Hills-at-Vallco EIR Scoping Comments

To whom it may concern,

We were born and raised in Cupertino, attended schools in the district K-12 and attended De Anza College. We are a young Millennial couple and we *strongly* object to the "HILL" plans at Vallco. We are both young professionals working the high tech/clean energy/automotive industries.

Cupertino is a city with a growing number of Millenials and not enough for us in the 15-35 age range, to do. We want retail:

- Round1 Arcade - family friendly arcade from Japan, features arcade games, karaoke, bowling
- Outlets - high end fashion outlets would be welcome in an affluent community like Cupertino whose people have quality tastes but love bargains
- Small retail shops for apparel - night market style, Taiwan, Japan strip type malls
- Restaurants - more exotic eateries, more ethnic cuisine
- Restaurant chains - The Kebab Shop, Poke Bowl,
- Cafes - more nooks and creative spots for our growing number of students to study, meet with friends or business people to hold meetings or for poetry readings/live music/comedy etc.

Cupertino needs to:

- KEEP BUSINESSES OPEN LATE! CUPERTINO NEEDS NIGHT LIFE! Students and professionals stay up late and by the time work/school is over, most everything is closed in Cupertino so we have to leave Cupertino to find food/shopping/entertainment
- Give us reason not to leave Cupertino! We would rather contribute to our city! We don't want the "HILL", we want retail and ONLY retail.

Sincerely,
Laura Chin (CHS graduate Class of '09) and Kyle Rader (Lynbrook High/De Anza graduate Class of '03)

From: dodie [mailto:[redacted]
Sent: Monday, November 16, 2015 3:49 PM
To: City of Cupertino Planning Dept.
Subject: Support

I a resident of San Jose near cupertino approve of everything that the sand Hill developers and the city of cupertino is doing for this project... look forward to wonderful development of this area.

a 55 year resident...
Thanks for the development of a very needy area... Dorothy Rheuark
[redacted]

From: Peggy Griffin [mailto:[redacted]]
Sent: Monday, November 16, 2015 3:54 PM
To: Piu Ghosh
Cc: City Clerk; City of Cupertino Planning Dept.
Subject: Vallco EIR Scoping Comments - impacts

SUBJECT: Vallco EIR Scoping Comments –impacts to be studied

1. **Agricultural Pesticides** - The Vallco Specific Plan Area and the Hills-at-Vallco project site are located on old orchard land.
   Please study the content of the soil for pesticides common during that time period.
   a. Please test all areas of the project site and at different depths, all the way down to the depth of the lowest level garage.
   b. Please test along Perimeter Road bordering the Superfund site at 19333 Vallco Pky at different depths and locations.
2. **Hazardous Building Materials** – State-recognized carcinogens such as lead compounds, asbestos, polychlorinated biphenyls (PCBs) used as coolants and lubricants, Fluorescent lighting, ballasts, mercury thermometers were used during the time period the Vallco Mall was built. A letter was sent from Sand Hill to the employees at Macy's notifying them of an asbestos problem found at Macy's.

   Please study the impact of demolition and disposal of these building materials found in the buildings and any other hazardous building materials commonly used during that time period.
3. **Groundwater contamination on Superfund site adjacent to JCP bordering on Perimeter Road** - The building right next to JCP had a wafer fab in it in the 1970s. There was groundwater contamination from that original 4-Phase (old company no longer in business) fabrication. Tandem Computers did some last mask processing in that building afterwards. Tandem was later required to clean up the site. Since Sand Hill is planning to dig down into the dirt right next to this former Superfund site for its 2 story underground parking, the possibility of groundwater contamination and hazardous materials leaking into the adjacent site must be significant.

   Please study this possible groundwater contamination, possible leakage into the surrounding area and it's possible impact on people parking underground or working above ground.

   Please study the possibility of the contamination spreading to the rest of the area.

   Please study the proposed monitoring methods proposed to keep people save from contamination.

   Please study any and all methods proposed to seal off these contaminants from the project site.

   As an ex-Superfund site adjacent to JCP, there are still land use prohibitions on the 19333 Vallco Pky. site. In particular, they are not allowed to build residences or schools for persons

under 21 on that property. The contamination was toward the JCP side of that parcel which borders Perimeter Road.

Please study the proposed uses related to the prohibited uses if any contaminants are found to be present along the border and at multiple distances and depths from the border of the property.

4. Since the project proposes to dig deep into the ground along all areas, the probability of contaminants from neighboring sites/uses should be studied. For example, there is a Jiffy Lube and a Union 76 Gas Station located across the street.

   Please make a report on all sites (past sites, too) surrounding the Vallco site, especially since the proposed project plans to dig 2 stories underground.

Sincerely,
Peggy Griffin
[redacted]

REFERENCE MATERIAL:
Here are the Post Closure Site Management Requirements here:
http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000000740

MAP OF THE SITE RELATIVE TO VALLCO:

From: Liang C [mailto:[redacted]
Sent: Monday, November 16, 2015 4:08 PM
To: City of Cupertino Planning Dept.
Subject: Comment on Vallco EIR - cell signal strength and need of new facilities

RE: Comment on Vallco EIR

http://www.citylab.com/tech/2011/09/cell-phones-and-density/172/

Why Your Cell Phone Drops Calls in Dense Cities - CityLab
Why Your Cell Phone Drops Calls in Dense Cities. With each advancement in network speed comes the need for more physical infrastructure. Tim De Chant
Read more...

> "We've all experienced the expanding cell phone system's shortcomings, from dropped calls to no service to a slow Internet connection. When one of those things happens, chances are it's because too many people are crowded into one area. Poor service due to crowding is most apparent at concerts or other large events, but it's becoming an everyday occurrence as more people use more connected devices"

Cupertino has a worker population of 32,000 and only 20,000 households.
Apple Campus 2 will add 14,000 and Vallco will add another 10,000 workers, just from office alone.
This will increase the working population in Cupertino by 50%.
Thus, the demand for cell signals will increase by 50%.
People are already experiencing dropped calls when going to crowded areas in Cupertino.

Please study the impact on existing cell signals in all carriers.

If more cell towers are needed, please install them far away from schools to reduce any potential health impact on children.
The increase of 3.5 million s.f. of office and 2 million s.f. at Vallco and 260,000 s.f. in Main Street would total 5.76 million square feet, which is over 50% of total office space in a short time.
Please study the impact on the capacity of high speed internet and cable services from such a large capacity increase.
Please study the impact on internet speed and reliability of signals for other home users when a large population nearby might eat up all internet bandwidth.
Note that many companies do have employees who work longer hours until 8, 9 or 10 o'clocks.

Please study the impact from 3pm to 6pm when many school children need to use internet to do school homework as more and more school homework is now done online.
Please study the impact during early evenings when the residence population and also school-aged children need access to internet for either entertainment or homework.

Liang Chao

From: Ping Gao [mailto:[redacted]
Sent: Monday, November 16, 2015 4:09 PM
To: City of Cupertino Planning Dept.
Cc: City Council; citystaff@cupertino.org
Subject: Regarding Vallco EIR

Dear Planning Commission and City Council members,

I'm writing to you to express my concern of the proposed Vallco project. I would like the upcoming EIR to study:

1) Traffic issue if there are 2 million sq. ft. office at Vallco; please give us an approximation of delay during traffic hour when Apple new campus and Vallco 2million sqft office is built; please keep in mind of the current traffic congestion at De Anza blvd around 6:30 pm and De Anza is 4 lanes in both directions;
2) The possibility of keeping the Vallco as retail only; or
3) the possibility to build a new school at Vallco;

As a Cupertino resident for 8+ years, I think Cupertino needs more schools, retails and all kinds of public service such as parks or libraries instead of office space or high density residential buildings. Please keep Cupertino as a safe, quiet and peaceful family-friendly small town.

Thanks,

Ping Gao

From: seema swamy [mailto[redacted]
Sent: Monday, November 16, 2015 4:13 PM
To: City of Cupertino Planning Dept.
Cc: Vasanth Krishnamurthy
Subject: We do not want the rezoning of Vallco Mall

To the planning board,

We want to keep the character of Cupertino as the small community with good quality of life. We do not want the Vallco Mall to be rezoned. It will increase traffic and deteriorate the quality of living. It will overcrowd the classrooms as well. Please help us maintain the character of Cupertino.

Best,
Seema Swamy
[redacted]

From: Brkezzat@aol.com [mailto:[redacted]
Sent: Monday, November 16, 2015 4:20 PM
To: PiuChosh@cupertino.org; City Clerk; City Council
Subject: Vallco EIR Request

Dear Commissioners and Council Members:

The proposed Vallco project, aka "The Hills at Vallco" has the potential to impact Cupertino for generations. Because of the enormity of the impact, it is the imperative that the environmental impacts of such a commitment be studied in depth as it will impact the nature of the community, habitat, and the health of its residents. In particular, I am requesting the following issues be evaluated and studied because of the health impacts on residents because of the addition of 2 million square feet of office space in Cupertino:

- The impact of nitrogen deposits on the native habitat in the area, including, but not limited to--the vertebrate, invertebrate, and plant species listed in the final Santa Clara Valley Habitant Conservation Plan. The listed species are:
- **Invertebrate**
  Bay Checker spot Butterfly
- **Amphibians & Reptiles**
  California Tiger Salamander
  California Red-legged Frog
  Foothill Yellow-legged Frog
  Western Pond Turtle
- **Birds**
  Western Burrowing Owl
  Least Bell's Vireo
  Tri colored Blackbird
- **Mammals**
  San Joaquin Kit Fox
- **Plants**
  Tiber Indian Paintbrush
  Coyote Acanthus
  Mount Hamilton Thistle
  Santa Clara Valley Dudleya
  Fragrant Fritillary
  Loam Prieta Hoita
  Smooth Lessingia
  Metcalf Canyon Jewelflower
  Most Beautiful Jewelflower
- The study conducted for Santa Clara County demonstrated that nitrogen deposits from the emissions additional automobiles in the target area enriched the serpentine soils, causing invasive species to crowd out native species that are accustomed to poorer soils.
- The impact car emissions of carbon monoxide, nitrogen oxide, nitrogen dioxide, particulate matter and ozone on pregnant women because of the projected increase of an additional 79,000 car trips. The prolonged exposure to these compounds during the first 8 weeks of pregnancy, according to medical studies, is associated with neural tube defects or malformations of the brain and spine. According to Stanford University School

of Medicine pregnant women who are exposed to high levels of carbon monoxide were almost twice as likely to give birth to children with spina bifida or anencephaly as pregnant women with a lower level of exposure.

- The impact car emissions of carbon monoxide, nitrogen oxide, nitrogen dioxide, particulate matter and ozone on young children because of the projected increase of an additional 10,000 + commuters. A UCLA study indicates that children exposed in utero to pollutants are more likely to die in infancy, have respiratory and digestive problems. The UCLA study indicated that infants living in areas with higher level air pollution were at greater risk of death the first year of life from respiratory issues, like Sudden Infant Death Syndrome or SIDS.
- The health impacts that car emissions of carbon monoxide, nitrogen oxide, nitrogen dioxide, particulate matter and ozone have on children with asthma and other respiratory issues. The UCLA study authored by Drs. Ritz and Williams noted that children living in areas with high traffic 500-1000 or their homes were more likely to visit emergency rooms or be hospitalized for respiratory issues than children not living close to traffic.
- The impact on the health of the community because of toxic releases into the air resulting from of the destruction of the current Vallco mall, particularly from asbestos, a known carcinogen. Asbestos has banned from wide scale use in the United States since the 1970's because it is a carcinogen, causing a cancer of the abdomen and lungs. In addition, asbestos has been shown to be linked to higher rates of gastrointestinal and colorectal cancer. There is also an elevated risk of throat, kidney, gallbladder, and esophageal cancer linked to asbestos.
- The impact of PCBs on health of human life and the lives of other species. PCB's have been demonstrated to have a significant on human health according to the United States Environment Protection Agency. People with significant PCB exposure have an increased risk of developing non-Hodgkin's lymphoma, and Epstein-Barr syndrome. Women who have had significant exposure to PCB's have had difficulty conceiving and give birth to lower birth weight babies, setting these children up for a lifetime of compromised health. Exposure to PCB's has been linked to neurological deficits in both humans and animals.

I would like for these toxic building materials to be examined at multiple depths and locations throughout the site. I understand that after discussing the site with the EPA, that Perkins and Will has put together a database listing all toxic building materials used in construction. The city needs to have its agents examine the site for these substances as well.

Thank you for your time and attention to this matter.

Regards,

Brooke Ezzat

From: Liana Crabtree [mailto[redacted]
Sent: Monday, November 16, 2015 4:21 PM
To: City of Cupertino Planning Dept.
Subject: Vallco EIR Comments - mitigation of attractive nuisance presented by the 30-acre green roof

Vallco EIR Comments - mitigation of attractive nuisance presented by the 30-acre green roof

We have been saddened in recent years by the suicides of students from Gunn and Palo Alto High Schools, several of whom killed themselves by stepping in front of commuter trains that travel at high speeds through Palo Alto neighborhoods.

In 2009, four (4) Palo Alto teens killed themselves by stepping in front of trains.

In the 2014-2015 academic year, despite the addition of a security patrol whose mission is to intervene when encountering people loitering by train tracks, possibly contemplating a suicide attempt, eight (8) people killed themselves by stepping in front of trains on Caltrain tracks. One was a Gunn student. Another was a recent Gunn graduate.

For the Palo Alto community, commuter train tracks represent a deadly attractive nuisance for their young people who are vulnerable to fleeting or persistent thoughts of suicide.

When I look at the landscape drawings of the green roof that is part of the current development proposal for the Vallco Shopping District, I am concerned that we will be introducing a different but equally deadly attractive nuisance in Cupertino if this project is allowed to proceed as planned. Our students are under the same academic pressures and high societal expectations as students in Palo Alto; we must be prepared that some of our students will seek a quick, devastating path away from their troubles just as some have in Palo Alto. Without proper mitigation, the Hills at Vallco could be the host of countless suicide tragedies.

The landscaped roof is described as 30 acres total, connecting office and residence towers of heights ranging from 50' to 80' (approximate). Even a fall from the lowest point of the green roof will certainly be fatal, if not mitigated by safety barrier, such as a net. I am struck by the miles of roof edge that will need to be monitored for people contemplating a jump to their death, similar to the way the Caltrain tracks are monitored for loiterers waiting to step in front of a train. Refer to roof drawing page 6 for an aerial view of the miles of roof edges and cutouts that will require monitoring: https://s3.amazonaws.com/the-hills-at-vallco/Landscape-Drawings.pdf

Please study the following environmental concerns related to suicide prevention that would be introduced in the community if the development proposal for the Vallco Shopping District is allowed to proceed with the green roof as planned today:

- Who will be responsible for paying for public security on the green roof?

- Who will be responsible for determining how much security is required for maintaining public safety on the green roof during the day when the park is open and at night when the park is closed?

- At the end of each day, what will be the protocol for ensuring that all visitors have left the park before closing?

- How many public and private access routes from the ground to the roof will be included in the project?

- How many security professionals will be responsible for monitoring roof access when the park is open and at night when the park is closed?

- If an intruder is detected on the roof when the park is closed, who is expected to be the first to engage with the intruder: on site security professionals or deputies from the Sheriff's Department?

- From the moment an after hours intruder is detected, how much time is expected to elapse before a first responder will be expected to engage with the intruder face-to-face or within speaking-voice distance?

- What barriers or mitigation measures, such as nets, will be installed in the project to prevent death in the event of a suicide attempt or other fall from the roof?

- If barriers or mitigation measures, such as nets, are installed in the project, who is responsible for rescuing anyone who has fallen from the roof but has been spared death and caught in the safety barrier?

- Will teams responsible for rescuing people caught in safety barriers require special equipment or training to support these rescues? If yes, who pays for the equipment and training?

I recognize that my letter and questions are grisly and disturbing. However, we must consider fully the intended and unintended ways structures that are added to our community will change our community.

Thank you,

Liana Crabtree

From: Peggy Griffin [mailto:[redacted]]
Sent: Monday, November 16, 2015 4:21 PM
To: Piu Ghosh
Cc: City Clerk; City of Cupertino Planning Dept.
Subject: Vallco EIR Scoping Comments - impact of school changes to future traffic

SUBJECT: Vallco EIR Scoping Comments – impact to schools

Both the Cupertino Union School District and the Fremont Union High School District have signed Letters of Intent with Sand Hill Properties regarding the Hills-at-Vallco project. These agreements should be included in the EIR scope of study. All impacts throughout both districts, regardless of city should be studied.

Traffic – already boundaries are starting to change as a result of this and other proposed projects. This changes traffic patterns so future change in traffic patterns should also be studied for both the high school and elementary/middle school districts.

Traffic – CUSD has started changing and offering open enrollment which changes the traffic pattern. All future boundary and changes in open enrollment/different student programs should be studied as it impacts future traffic patterns and safe routes to school.

Space at Vallco for FUHSD – all students from all high schools will be able to use this space. Traffic should be studied based on all locations of high schools throughout the FUHSD.

Sincerely,
Peggy Griffin
[redacted]

From: Bill(Zhibiao) Zhao [mailto:[redacted]
Sent: Monday, November 16, 2015 4:36 PM
To: City of Cupertino Planning Dept.; City Council; citystaff@cupertino.org
Subject: Regarding Vallco EIR

Dear Planning Commission and City Council members,

I'm writing to you to express my concern of the proposed Vallco project. I would like the upcoming EIR to study:

1) Traffic issue if there are 2 million sq. ft. office at Vallco; please give us an approximation of delay during traffic hour when Apple new campus and Vallco 2million sqft office is built; please keep in mind of the current traffic congestion at De Anza blvd around 6:30 pm and De Anza is 4 lanes in both directions;
2) The possibility of keeping the Vallco as retail only; or
3) the possibility to build a new school at Vallco;

As a Cupertino resident for 8+ years, I think Cupertino needs more schools, retails and all kinds of public service such as parks or libraries instead of office space or high density residential buildings. Please keep Cupertino as a safe, quiet and peaceful family-friendly small town.

Thanks,
Zhibiao Zhao

From: Govind Tatachari [mailto:[redacted]
Sent: Monday, November 16, 2015 4:53 PM
To: City Clerk; PiuChosh@cupertino.org; City Council; City of Cupertino Planning Dept.
Subject: Vallco Project EIR

Dear planning commissioners and council members,

The proposed Vallco project is too humongous and will not only have a huge enviromental impact but also alter the quality of life of residents of Cupertino as well as those in neighboring areas on a vast scale. It behoves that all of you who represent the residents of Cupertino City must exercise caution by making sure that the scope of environmental impact is as comprehensive as possible.

The environmental study should not only include the estimates of the impact but also all the assumptions made to arrive at the estimates including references to existing authoritative sources of data and calculations used as part of the assumptions and estimates. In case of all the significant and unavoidable impacts the estimates should provide specific values and avoid using a grade scale since it is impossible to discern the real value from grade scale. The estimates should include both impact from individual classes of allocations and cumulative Impacts

The scope should include a comparative study of environmental impact of existing zoning with existing retail space allocation vis-a-vis the new zoning and new retail, housing and allocation that the council approved on Dec 4th, 2014. In case if the developer requests for additional allocation, the comparative study should also include the environmental impact of the difference requested vis-a-vis the Dec 4th approved allocation.

The scope of environmental impact study should include at the minimum the following areas (on local, citywide and neighborhood city basis):

1. Traffic and transportation impact
2. Open space
3. Population and housing pressure due to increased office space
4. Public Services
5. Utilities and Service Systems
6. Energy requirements and Greenhouse Gas Emissions
7. Air Quality
8. Hydrology (including water table) and water quality
9. Biological resources in the current and neighbouring areas
10. Waste disposal include sewerage and other wastes
11. Noise

I believe there are set california state standards for what is included in these categories and specific areas in terms of an environmental impact study.

Thanking you in this regard.
Sincerely,
Govind Tatachari
Cupertino Resident

From: Liang C [mailto:[redacted]
Sent: Monday, November 16, 2015 4:57 PM
To: City of Cupertino Planning Dept.
Subject: Comment on Vallco EIR: Ground water issues.

RE: Comment on Vallco EIR.

Here are comments from a concerned citizen:

The building right next to JCP had a semiconductor manufacturing facility in it in the 70s. There was groundwater contamination from that original Four-Phase facility. Reference the California Regional Water Quality Control Board File Number 43S1129 (RWP). It is known as the 19333 Vallco Parkway site. APN 316-20-076 is one of the parcel that this site is on. It is immediately to the east of the JCP site in the Vallco Mall.

Here is the Sate Water Resources Control Board entry for this site:

http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000000740

The Apple 2 EIR addressed the problem of ground water contamination, and specifically mentioned the 19333 Vallco Parkway site along with many other sites in the vicinity of its project.

https://s3.amazonaws.com/Apple-Campus2-DEIR/Apple_Campus_2_Project_EIR_Public_Review_5h-Hazards.pdf

Of particular concern are the restrictions placed on the 19333 Vallco Parkway site by the State Water Resources Control Board. Schools for persons under 21 are prohibited. Residence use is prohibited. The list goes on and on.

Sand Hill Property Company intends to place two underground floors of parking right next to the 19333 Vallco Parkway site. The 19333 Vallco Parkway site cannot be used for residential housing or for schools. If a flume from the 19333 Vallco Parkway site were found in the area planed for excavation for a parking garage, the site would perhaps not be considered suitable for the proposed FUHSD technology center.

The EIR should detail how testing for any contamination that may have seeped from nearby contaminated sites known to the State Water Resources Control Board (and other government agencies) will be performed. It should also characterize the possible spectrum of mitigation measures that could be employed if contamination were found at various levels. There should also be a discussion on which existing land use restrictions that apply to the 19333 Vallco Parkway site could reasonably be applied to the proposed Vallco development in the event that contamination were discovered.

From: Liang C [redacted]
Sent: Monday, November 16, 2015 5:01 PM
To: City of Cupertino Planning Dept.
Subject: Comment on Vallco EIR - pedestrian safety in the parking garages and overall security

RE: Comment on Vallco EIR

The Parking Drawing shows very tight parking stalls with zero space for pedestrian walk ways.

Please study the pedestrian safety when walking inside a mega parking lot with 5,000 parking spaces.

Please study the overall safety of keeping shoppers and workers safe in such a large underground space.

Are there security measures for people who need emergency medical help or police help?

Are there going to be sufficient security cameras in case of car jacking or even other more scary crimes?

Liang Chao

From: Uma Gouru [mailto:[redacted]]
Sent: Monday, November 16, 2015 5:02 PM
To: City of Cupertino Planning Dept.
Subject: concerns about vallco rezoning and environmental impact

Hi,

I, Uma Gouru, and my husband Murty Dasari, would like to express our concerns on impacts on unplanned growth and its impacts on our neighborhood if Vallco rezoning and any other new apartments or office space is made possible.

Impact on schools - This is a major concern for us. Any additional rental housing will add to even more flooding of our schools from elementary to high school. Our children are already suffering from the portables being setup in the schools which are not a healthy option and overcrowding of classes due to the Rosebowl residences, new Biltmore apartments etc. Long lines in school cafeterias and lack of lunch tables caused my kids to skip lunches many times. Addition of portables result in less play area and space for other activities. Historically rental apartments contribute to more students to the school system compared to the owned properties. Drop off and pickup of kids is becoming a great hassle and taking away an extra half hour of our busy schedule due to increased traffic..

Traffic congestion - Ours roads are already congested and it is not safe for kids anymore to bike or walk to school. Further expansion would only deteriorate this situation. Even moving around few miles in the neighborhood in the morning and evening commute times in addition to school dismissal times is getting very tiring, long delays and long wait times at traffic signals and stop signs. This is further causing drivers to be less patient resulting in honking and shouting on each other.

Libraries and Parks: Our community resources like parks, community centers and library are already operating at exceeded capacity. Further expansion in rental residences would only exacerbate the situation.

Clearly if further permits to add more office space and rental residences are only causing major annoyances and inconveniences to the community then why go for that if not to satisfy the greedy developers who don't live or care about our peaceful and welcoming city?

We request you to carefully analyze the situation and seek active feedback from the community. Community members are voicing their grievances in Nextdoor.com website. Please seek feedback from there as well. With this explosive growth, it is impacting not only cupertino residents but also the neighboring cities. If there is anything we need, it is more schools from elementary to high school, parks and libraries, courts for volleball, soccer, tennis etc.

sincerely,

Uma Gouru and Murty Dasari.

From: Carrie Oleary [mailto[redacted]]
Sent: Monday, November 16, 2015 5:06 PM
To: City of Cupertino Planning Dept.
Subject: Comment on Vallco EIR

I would like the Vallco EIR to review whether there are an adequate number of medical treatment facilities to serve the increased amount of people proposed to live, work and shop at The Hills.

On Nov 16, 2015 4:57 PM, "Liang C" [redacted] wrote:

RE: Comment on Vallco EIR.

Here are comments from a concerned citizen:

The building right next to JCP had a semiconductor manufacturing facility in it in the 70s. There was groundwater contamination from that original Four-Phase facility. Reference the California Regional Water Quality Control Board File Number 43S1129 (RWP). It is known as the 19333 Vallco Parkway site. APN 316-20-076 is one of the parcel that this site is on. It is immediately to the east of the JCP site in the Vallco Mall.

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http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000000740

The Apple 2 EIR addressed the problem of ground water contamination, and specifically mentioned the 19333 Vallco Parkway site along with many other sites in the vicinity of its project.

https://s3.amazonaws.com/Apple-Campus2-DEIR/Apple_Campus_2_Project_EIR_Public_Review_5h-Hazards.pdf

Of particular concern are the restrictions placed on the 19333 Vallco Parkway site by the State Water Resources Control Board. Schools for persons under 21 are prohibited. Residence use is prohibited. The list goes on and on.

Sand Hill Property Company intends to place two underground floors of parking right next to the 19333 Vallco Parkway site. The 19333 Vallco Parkway site cannot be used for residential housing or for schools. If a flume from the 19333 Vallco Parkway site were found in the area planed for excavation for a parking garage, the site would perhaps not be considered suitable for the proposed FUHSD technology center.

The EIR should detail how testing for any contamination that may have seeped from nearby contaminated sites known to the State Water Resources Control Board (and other government agencies) will be performed. It should also characterize the possible spectrum of mitigation measures that could be employed if contamination were found at various levels. There should also be a discussion on which existing land use restrictions that apply to the 19333 Vallco Parkway site

could reasonably be applied to the proposed Vallco development in the event that contamination were discovered.

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Visit our Home Page http://www.bettercupertino.org/
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For more options, visit https://groups.google.com/d/optout.

From: Terry Overby [mailto:[redacted]
Sent: Monday, November 16, 2015 6:11 PM
To: City of Cupertino Planning Dept.
Cc: Larry Wuerz
Subject: WHAT ENVIRONMENTAL IMPACT REPORT SHOULD COVER FOR "THE HILLS AT VALLCO".

The EIR for The Hills at Vallco should include as follows:

1. A study of all of the emergent construction (the aggregate), (Apple, Cupertino Main Street, Agilent potential expansion, new 6-story building to replace IHOP on Stevens Creek, the Nineteen 800 apartments on Vallco Parkway) should be examined as to collective impact on any new construction in the area near Vallco. That study should include, but not be limited to:

    a. Capability of all roads within 1-mile to support the additional traffic load
    b. Ability for public transportation to support the addition people
    c. Ability to support the additional water and sewer demands of the project
    d. Ability of the school system to support the additional students and impact to safety of bicycles and pedestrians in the area
    e. Impact on the existing neighborhoods adjacent to the project

Thank You for reviewing my concerns,

Terry Overby
[redacted]

From: mzhang [mailto:[redacted]
Sent: Tuesday, November 17, 2015 12:52 AM
To: City of Cupertino Planning Dept.
Cc: Mzhang
Subject: Comment on EIR for The Hills at Vallco Project

Dear Piu,

For The Hills at Vallco Project, I would like to give the following comments for the EIR.

1, public school impact.

2. freeway in and out traffic impact in addition to the new Apple campus.

3. impact on stevens creek and Wolfe / Miller traffic.

Regards,

Michael

Thanks, Michael

Case ID#: 25114
Case Detail page: https://clients.comcate.com/reps/caseDetail.php?ag=27&id=997117
Topic>Subtopic: The Hills at Vallco>Public Comments
Case Location:

Action that triggered this email: Case created

Customer: Lanser, Bryan
Owner: Geoff Bradley
Date case was created (Days outstanding): 11/11/2015 (0)

Your role on this case: Primary Owner

Customer request (only first sentences): I would like to see a detailed traffic management and parking plan broken in to four parts:

1. Traffic impact and flow to and from the complex for the OFFICE TENANTS.
2. Traffic impact and flow to and from the complex for the RESIDENTS.
3. Traffic impact and flow to and from the complex for the VISITORS.
4. Comprehensive parking plan for the 10,000 office workers ((approximately 6,000 vehicles) residents (number of residences X 2) and retail tenants (number of shops X 5, assuming average number of store employees of 5, which is likely too few).

The traffic plan needs to be based on an average work day, showing traffic densities and flows on an hour-by-hour basis. With 2 million square feet of office space, there will be 10,000 people coming to the office building every day according to CPSE and CoreNet Global office space density statistics. According to Public Enterprise Economics and Transport Problems, a properly designed Freeway can accommodate 2000 vehicles per hour per lane can be accommodated, and with a very optimistic estimate of 1.67 passengers per vehicle, Freeway 280 can accommodate 3,333 people per hour. With three usable lanes in and around the Wolfe Road exit, that means that a maximum of 9,999 people can be transported on the freeway at any given time PER HOUR, assuming no breakdowns or traffic delays.

My concern is that with 10,000 working at The Hills, another 13,000 working at the Apple Donut, plus surrounding community companies and commuters, there is no way that the current freeway system appears to be able to accommodate the demands imposed by this project at peak commute times. And this concern is without considering any customers who visit The Hills, any employees who work at the shops, and any residents who live there.

I personally feel that the only way this project should be allowed to be approved as currently proposed is to put it to a public vote. The fact is that the community around this facility will be drastically impacted by its approval, and I believe that there will be severe, permanent traffic impact that will NOT be ameliorated by simply adding a few more silver busses to the Apple commute routes.

I look forward to seeing the results of your studies and shared with the greater Cupertino residents whose lives will be impacted by this very large project.

I would like to see a similar study done for The Oaks, which aggravates an already over-burdened freeway interchange between 85 and Stevens Creek Blvd.

You can also access your account by going to the employee home page and entering your username and password.

Case ID#: 25121
Case Detail page: https://clients.comcate.com/reps/caseDetail.php?ag=27&id=998096
Topic>Subtopic: The Hills at Vallco>Public Comments
Case Location:

Action that triggered this email: Case created

Customer: Tung,
Owner: Geoff Bradley
Date case was created (Days outstanding): 11/14/2015 (0)

Your role on this case: Primary Owner

Customer request (only first sentences):

To whom it may concern,

I have lived in Cupertino for 15 years and my house is located right next to Vallco shopping mall by the "wall". The proposal of The Hills at Vallco, building a 7-story or even 9-story commercial/residential building in our residential neighborhood, really bother and upset me and my neighbors.

I seriously worry about the negative impact on the privacy, traffic, air /light pollution and living quality that me/my family and my neighbor will experience if The Hills project continues. I firmly oppose The Hills at Vallco project and truly hope Cupertino and my neighborhood can remain a desirable place/city with living qualty to live for many generation.

Please try to understand and respect our wills and support our decision in opposing The Hills at Vallco.

Thank you for spending time to read this email.

Best,
J. Tung

Case ID#: 25123
Case Detail page: https://clients.comcate.com/reps/caseDetail.php?ag=27&id=998207
Topic>Subtopic: The Hills at Vallco>Public Comments
Case Location:

Action that triggered this email: Case created

Customer: Alicea, Louie
Owner: Geoff Bradley
Date case was created (Days outstanding): 11/14/2015 (0)

Your role on this case: Primary Owner

Customer request (only first sentences):

To: City of Cupertino Planning Dept.

My family have been long time residents of Cupertino since 1984.

We do not want to add 7 story buildings with family homes at the Vallco site. We want our privacy.

We do not want the wall opened for public access to our neighborhood.

Our schools are maxed out already.

Vehicle traffic has become very congested in Cupertino the past few years, and this is going to become overwhelming when the new Apple complex is completed.

Public Safety is unable to keep up with controlling frequent speeders and violations throughout the city. Drivers are constantly running Red Lights/Stop Signs on a regular basis.
Bicycle riders from Apple do not obey the laws and guidelines when riding through the neighborhoods already.

We don't see a plan for Senior living, which needs to be addressed.

We hope you can come up with a plan that we can all live with. We are tired of hearing the construction that has been going on in that area for over 10 years.

By the way, We are still waiting for our street on Merritt Drive to be finally repaired and paved.

Regards, Louie Alicea

Case ID#: 25124
Case Detail page: https://clients.comcate.com/reps/caseDetail.php?ag=27&id=998211
Topic>Subtopic: The Hills at Vallco>Public Comments
Case Location:

Action that triggered this email: Case created

Customer: Anonymous
Owner: Geoff Bradley
Date case was created (Days outstanding): 11/14/2015 (0)

Your role on this case: Primary Owner

Customer request (only first sentences):

We are residents of the Portal Neighborhood and we are not supporting a 7 or 9 -story building and 800+ residential units that can impact the privacy and over-crowding of the area.

Case ID#: 25125
Case Detail page: https://clients.comcate.com/reps/caseDetail.php?ag=27&id=998234
Topic>Subtopic: The Hills at Vallco>Public Comments
Case Location:

Action that triggered this email: Case created

Customer: Hampe, Carl
Owner: Geoff Bradley
Date case was created (Days outstanding): 11/15/2015 (0)

Your role on this case: Primary Owner

Customer request (only first sentences):

We live on the second street over from Vallco shopping center on Denison Avenue, and we're very concerned about the impacts that the proposed Sand Hill development plan might have on our quality of life here. We have been residents here since 1989, and have seen the negative impact that recent development projects in Cupertino have had on our local environment. We have lost most of the confidence that we had in our city government due to it's partiality to supporting greedy developers over the needs and rights of its citizens.

The recent negative impact consists of slowed traffic on the streets we most frequently use, strains on our school system's ability to serve our children's needs, increased air pollution from additional traffic, and increased crime of all kinds in our city. And this has all happened during a time when economics has made it more difficult for our city and county service providers to deal with the additional growth.

We haven't yet seen the impact's that Apple's new complex will have to our immediate area, and yet the city council is trying to push through a perverted Vallco "revitalization" project right next to the Apple complex without sufficient community input that will entirely change the nature of our neighborhood.

We are primarily concerned about the following potential impacts of Sand Hill's plan for the development of the Vallco property:

1. Additional traffic congestion in our area 2. Additional air and noise pollution 3. Additional crime 4. Loss of privacy due to our proximity to proposed tall buildings 5. Reduced availability of close-by shopping 6. Reduced effectiveness of our schools

One other particular concern that we have is that with all of the additional people moving through this part of the city that there will be pressure on the city to open up additional thoroughfares coming right through our neighborhood to reduce traffic flow on Stevens Creek Blvd. This would greatly increase our local traffic congestion, air and noise pollution, and crime. We ask the council to ensure that this will not be done.

We feel less safe and happy than we did when we first moved here. We watch our neighbors move out of Cupertino because of the expected impacts. We used to think that this was one of the best communities in the Bay Area, but we now see it becoming more and more like the less desirable places. We feel that our quality of life in this community is becoming worse by the day.

We hope that you will listen to our plea for a more sane and safe plan for Cupertino city development.

Sincerely,

Carl and Sharon Hampe

Case ID#: 25126
Case Detail page: https://clients.comcate.com/reps/caseDetail.php?ag=27&id=998244
Topic>Subtopic: The Hills at Vallco>Public Comments
Case Location:

Action that triggered this email: Case created

Customer: Chessen, Debi
Owner: Geoff Bradley
Date case was created (Days outstanding): 11/15/2015 (0)

Your role on this case: Primary Owner

Customer request (only first sentences):

Please study:
At what angle these homes can see the moon coming up before The Hills at Vallco is built?
At what angle these homes can see the moon coming up after The Hill is built?
How much of the ridge line would be blocked by The Hills?
As the Sun comes up each morning, how much shorter the gardens of these single-family homes would be exposed to morning sunshine?

Since the very tall commercial building will be as close to the single-family homes as the next door neighbor, the invasion of privacy on these single family homes should be studied.
Please study:
The range of sight of any visitor on the rooftop park during day time into the direction of single-family homes.
The range of sight of any visitor on the rooftop park during night time into the direction of single-family homes.
The range of sight of any maintenance worker on the rooftop park during day time into the direction of single-family homes.
The range of sight of any maintenance worker on the rooftop park during night time into the direction of single-family homes.
The range of sight of any visitor of the 7-story commercial building during day time into the direction of single-family homes.
The range of sight of any visitor of the 7-story commercial building during night time into the direction of single-family homes.
The range of sight of any maintenance worker, such as window cleaner, of the 7-story commercial building during day time into the direction of single-family homes.
The range of sight of any maintenance worker, such as window cleaner, of the 7-story commercial building during night time into the direction of single-family homes.
As the commercial building might be lighted at night all night long as many other commercial buildings do for security reasons, please study:
the impact of light pollution from the commercial buildings on single-family homes at night.
the impact of light pollution from the additional street lights installed The Hills.

the impact of the ability to observe stars from the gardens of single-family homes at night.

Also, during the construction of The Hills at Vallco, the following should be studied:
the privacy of the single-family homes within visible range by construction workers.
noise levels of construction equipment or digging equipment for underground garage.
pollution from dust of digging or construction materials.
Thank you.

Page 13 of the Architecture Drawing: https://s3.amazonaws.com/the-hills-at-vallco/Architecture-Drawings.pdf

Slice view 5: (below section is the leftmost side of Slice view 5) The Vallco building (Building 6) will be as far as the house of their nextdoor neighbor.
And it will be as tall as 90 feet, gradually increasing from 65 feet.
With 10-12 feet per floor, that's about 5 to 7 stories tall.
Toilets flushed per unit of housing office/vs/retail only toilets needed.
No sun for neighboring houses and privacy issues noise levels for neighborhood impact on trees - I think they are not being taken care of air pollution buffer trees may be taken out and then habitat is disturbed this developer has let trees die before Impact on a new school for traffic, noise, traffic on an already used street for existing school. Not enough green space for kids to play and exercise.
Infastructure of our city and how it will be affected.

Please study wisely and leave us our quality of life.

Case ID#: 25129
Case Detail page: https://clients.comcate.com/reps/caseDetail.php?ag=27&id=998287
Topic>Subtopic: The Hills at Vallco>Public Comments
Case Location:

Action that triggered this email: Case created

Customer: Warren, Lisa
Owner: Geoff Bradley
Date case was created (Days outstanding): 11/15/2015 (0)

Your role on this case: Primary Owner

Customer request (only first sentences):

3 page attachment is being submitted with comments to be added to the Scoping of EIR for Vallco (The Hills at)

Case ID#: 25130
Case Detail page: https://clients.comcate.com/reps/caseDetail.php?ag=27&id=998290
Topic>Subtopic: The Hills at Vallco>Public Comments
Case Location:

Action that triggered this email: Case created

Customer: Warren, Lisa
Owner: Geoff Bradley
Date case was created (Days outstanding): 11/15/2015 (0)

Your role on this case: Primary Owner

Customer request (only first sentences):

EIR must study any and all required EIR criteria as they relate to any off-site development that is the subject of the June 9, 2015 Sand Hill Properties Company 'Letter of Intent' written to, and signed by, Cupertino Union School District Superintendent and CUSD Board of Education President (CUSD signatures dated June 16, 2015). If the intent is truly there, then any related development is part of the application for The Hills at Vallco, and must be considered part of the project that is being studied in the Vallco Specific Plan Area, regardless of location.

Case ID#: 25132
Case Detail page: https://clients.comcate.com/reps/caseDetail.php?ag=27&id=998320
Topic>Subtopic: The Hills at Vallco>Public Comments
Case Location:

Action that triggered this email: Case created

Customer: Shim, Cari
Owner: Geoff Bradley
Date case was created (Days outstanding): 11/15/2015 (-0)

Your role on this case: Primary Owner

Customer request (only first sentences):

800 apartments and another Collins like elementary school on the backside does not make any sense! The traffic onto and around portal will be ridiculous. All this influx needs not just one school, but another middle and high school. Making apartments will create the issue we have now where we cannot seem to fund the Yosemite trips that they have been able to do until the last couple of years. People need ownership not cheaper rentals without appropriate taxes to maintain the quality of Cupertino. we cannot become another sunnyvale and san jose!

Case ID#: 25133
Case Detail page: https://clients.comcate.com/reps/caseDetail.php?ag=27&id=998321
Topic>Subtopic: The Hills at Vallco>Public Comments
Case Location:

Action that triggered this email: Case created

Customer: Yee, Staci
Owner: Geoff Bradley
Date case was created (Days outstanding): 11/15/2015 (-0)

Your role on this case: Primary Owner

Customer request (only first sentences):

We hope that the following will be reviewed during the EIR:
1) Traffic congestion around the new school (Nan Allan site), esp. during drop-off and pick-up times. Residents already feel the traffic on Merritt and Blaney is an issue.
2) Danger to students walking from The Hills to the new school site, due to a busy street (Stevens Creek) being the only transit option, and assuming there's no penetration of the sound wall. Please note that our understanding is that the sound wall is remaining intact, which is critical for our neighborhood.
3) Impact on school revenue vs. student enrollment from The Hills. In other words, why are all 800 rental units considered one parcel? Thus, the property owner will only pay one parcel tax per year, vs. 800 parcel taxes. This is an overburden to the rest of the Cupertino residents.
4) Noise, light, and privacy impact to the neighborhood residents. For example, from the green roof, can existing residents' windows/doors be seen?
5) What is the danger of falling from any point of the green roof? In other words, what fencing/wall around the green roof will prevent suicide attempts or accidents?

Case ID#: 25136
Case Detail page: https://clients.comcate.com/reps/caseDetail.php?ag=27&id=998355
Topic>Subtopic: The Hills at Vallco>Public Comments
Case Location:

Action that triggered this email: Case created

Customer: Anonymous
Owner: Geoff Bradley
Date case was created (Days outstanding): 11/16/2015 (0)

Your role on this case: Primary Owner

Customer request (only first sentences):

Dear CUSD board members,

I am greatly concerned about the rumors that I keep hearing about the possibility of a new school being built near me and the possibility of the wall between Vallco and our home being allowed to be taken down.

First of all, the huge amount of traffic for Collins School is on both Portal Ave. and Blaney Ave. It is horrible and dangerous on both of these streets both in the morning and in the afternoon. We also have a tremendous amount of traffic from Lawson Middle School to contend with. If you add another school and more students, the traffic will become even more dangerous than it already is. The new school should be built where the 200 new students will be living--not added to the confusion and danger that already surround us.

Also, I am sure you are aware of the fact that before Vallco was built, there was a covenant letter given to the City of Cupertino promising that the wall would never be allowed to taken down. There is good reason for this. If the wall comes down, the traffic in our neighterborhood will become outrageous with cars driving back and forth. And, more importantly, of course, this will make it even more dangerous for our children and adults to walk to and from Collins School and Lawson School.

I know that Cupertino could really benefit from adding a new school. But, please, don't just think of the money aspect. Please think only of the safety of our children!!

Case ID#: 25139
Case Detail page: https://clients.comcate.com/reps/caseDetail.php?ag=27&id=998553
Topic>Subtopic: The Hills at Vallco>Public Comments
Case Location:

Action that triggered this email: Case created

Customer: Anonymous
Owner: Geoff Bradley
Date case was created (Days outstanding): 11/16/2015 (0)

Your role on this case: Primary Owner

Customer request (only first sentences):

I'm concerned about air quality during the demolition of the existing mall including possible asbestos in the existing buildings

Santa Clara Valley
Audubon Society

November 15th, 2015

Department of Community Development City of Cupertino
planning@cupertino.org

Re: Scoping comments Re: Notice of Preparation for the Hills at Vallco project

Santa Clara Valley Audubon Society is a local environmental organization concerned with land use choices and their impact on our region's biological and natural resources, especially birds. This letter provides our scoping comments for the proposed Hills at Vallco Project (Project).

The project proposes to demolish the regional Vallco Shopping Mall and replace it with a mixed use commercial, residential, and office development with a 30-acre integrated green roof. We are generally supportive of the creation of habitat on rooftops, but we have concerns with the following potential impacts:

1. Nitrogen deposition

Nitrogen is a powerful fertilizer that triggers growth among a wide variety of vegetation types. The fertilizer encourages invasive plant growth that crowds out native plants. The Wildlife Agencies and scientific researchers agree that vehicle exhaust includes nitrogen oxide that is airborne and then settles. A 2006 report from the California Energy Commission, *Impacts of Nitrogen Deposition on California Ecosystems and Biodiversity*, addressed the impacts of nitrogen deposition. Also, a notable number of applicable research studies have identified nitrogen deposition impacts for locations outside California including other parts of the world. The HCP provides state-of-the-art scientific analysis of the impacts of vehicular emissions, specifically nitrogen emissions, on sensitive species and habitat.

Nitrogen from vehicle exhaust that settles on the ground also negatively impacts other land cover types in Santa Clara County including California Annual Grassland, Northern Mixed Chaparral / Chamise Chaparral, Northern Coastal Scrub / Diablan Sage Scrub, Valley Oak Woodland, Mixed Oak Woodland and Forest, Blue Oak Woodland, Coast Live Oak Forest and Woodland, Foothill Pine - Oak Woodland, Mixed Evergreen Forest, Redwood Forest, Coastal and Valley Freshwater Marsh, Seasonal Wetland, and Pond habitat. Serpentine land cover in Santa Clara County has been shown to experience adverse indirect impacts due to nitrogen deposition. This land cover type supports host plants of the threatened Bay checkerspot butterfly. As such, loss of serpentine

22221 McClellan Road, Cupertino, CA 95014 Phone: (408) 252-3748 * Fax: (408) 252-2850
email: scvas@scvas.org * www.scvas.org

vegetation results in loss of habitat for the butterfly, which is a violation of the federal Endangered Species Act.

Please analyze impacts of nitrogen deposition to baylands, marshlands, grasslands, and serpentine soil habitats.

The traffic generated by the Project will add to the cumulative impacts of N-deposition on sensitive habitats. Please provide analysis of increased vehicle trips and vehicle miles traveled, and an estimate of NO_x and NH_3 emissions from those vehicle trips. Appropriate mitigations similar in scale to those provided for power plants and for the Santa Clara Valley Habitat Plan should be developed.

2. Impacts of glass surfaces on resident and migratory birds

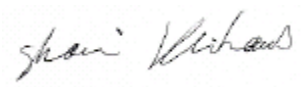
Scientific studies show that collisions with glass surfaces kill 300 million to a billion birds in the country every year (Loss et. al. 2014, Hager et. al. 2013). Attraction to lights causes additional mortality. A six-year study at the California Academy of Sciences estimates the toll at 54 birds per year – all at one building. It seems that many of the fatalities were fledging birds, with little experience of flight and with less agile navigation skill in their environment. The building that was monitored does not have expansive glass surfaces, so it is possible that buildings with more glazing would exert a higher toll. The California Academy of Sciences study (Jack Dumbacher, personal communication) as well as Hager et. al. 2013 show that spatial building configuration and building window area are primary concerns and should be considered in the design of buildings, landscaping and their configurations.

Please provide analysis of cumulative impacts to birds, and mitigate by requiring design criteria that avoid reduce light pollution impacts and the risk of collision. Please see:

- https://dl.dropboxusercontent.com/u/56352315/Bird-friendly Building engl.pdf
- http://www.abcbirds.org/abcprograms/policy/collisions/pdf/Bird-friendly_Building_Guide_WEB.pdf

We thank you for your consideration. Please put SCVAS on the notification list for any updates or public opportunities to participate and comment as the project moves forward.

Respectfully,



Shani Kleinhaus,
Environmental Advocate

22221 McClellan Road, Cupertino, CA 95014 Phone: (408) 252-3748 * Fax: (408) 252-2850
email: scvas@scvas.org * www.scvas.org

DEPARTMENT OF TRANSPORTATION
DISTRICT 4
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November 16, 2015

SCL280379
SCL/280/PM 8.35
SCH# 2015102004

Ms. Piu Ghosh
City of Cupertino
Department of Community Development
10300 Torre Avenue
Cupertino, CA 95014

Dear Ms. Ghosh:

Vallco Shopping District Specific Plan and The Hills at Vallco Project – Notice of Preparation

Thank you for continuing to include the California Department of Transportation (Caltrans) in the environmental review process, after the teleconference call with the Santa Clara Valley Transportation Authority's (VTA) and developers on April 15, 2015, for the Specific Plan (Plan) and project referenced above. The mission of Caltrans is to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability. Caltrans has reviewed the Notice of Preparation (NOP) to ensure consistency with its mission and state planning priorities of infill, conservationism, and efficient development. Caltrans provides these comments consistent with the State's smart mobility goals to support a vibrant economy and build communities, not sprawl.

Project Understanding
The proposed project is located immediately south of Interstate (I-) 280 in the southwest and southeast quadrants of the I-280/S. Wolfe Road interchange. It would demolish an approximately 1.2 million square feet (sq. ft.) regional shopping mall and associated parking and construct a mixed use commercial, residential, and office development with the following uses:

- 625,000 sq. ft. of commercial and civic areas, including retail and entertainment uses, such as, restaurants, a movie theater, an ice skating rink, bowling alley, health club and civic uses including a 10,000 sq. ft. High School Innovation Center and a 5,000 sq. ft. community center;
- 800 residential units, including 680 market rate units, 80 below market rate units and 40 senior age-restricted units;
- 2,000,000 sq. ft. of office uses;

- A 30-acre integrated green roof with public and private open space and recreational uses;
- Two town squares, approximately 2.98 acres total;
- Amenity space for residential and office uses;
- Loading, facility and security management areas;
- Transit center;
- Central plants; and
- Associated underground, surface and structured parking for 9,175 vehicles.

Lead Agency
As the lead agency, the City of Cupertino (City) responsible for all project mitigation, including any needed improvements to State highways. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures.

Traffic Impact Analysis (TIA)
The environmental document should include an analysis of the travel demand expected from the proposed project. Caltrans recommends using the Caltrans *Guide for the Preparation of Traffic Impact Studies* for determining which scenarios and methodologies to use in the analysis, available at: www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf.

Please ensure that a TIA is prepared providing the information detailed below:

1. A vicinity map, regional location map, and site plan clearly showing project access in relation to nearby State roadways. Ingress and egress for all project components should be clearly identified. Clearly identify the State right-of-way (ROW). Project driveways, local roads and intersections, car/bike parking, and transit facilities should be mapped.

2. Project-related trip generation, distribution, and assignment including per capita use of transit, rideshare or active transportation modes such as existing bus service; new bus service, such as service to major transit centers like the Lawrence Station and the Sunnyvale Station; and vehicle miles traveled (VMT) reduction factors. The assumptions and methodologies used to develop this information should be detailed in the study, utilize the latest place-based research, and be supported with appropriate documentation.

3. 2035 Cumulative Conditions and 2035 Cumulative Plus Project Conditions.

4. The project site's building potential as identified in the General Plan. The project's consistency with both the Circulation Element of the General Plan and the Congestion Management Agency's Congestion Management Plan should be evaluated.

5. A schematic illustration of walking, biking and auto conditions at the project site and study area roadways, trip distribution percentages and volumes as well as intersection geometrics, (i.e., lane configurations, for AM and PM peak periods). Potential safety issues for all road users should be identified and fully mitigated.

6. Freeway segment analysis for Interstate (I-) 280 northbound and southbound from El Monte Road to State Route (SR) 87. The segment analysis should include demand volumes. Freeway high-occupancy vehicle (HOV) lane capacity of 1,650 vehicles/lane must be used for the analysis.

7. Intersection analysis for the following locations:

   - I-280/De Anza Boulevard (on- and off-ramps);
   - I-280/Wolfe Road (on- and off-ramps);
   - I-280/Stevens Creek Boulevard (on- and off-ramps);
   - I-280/Lawrence Expressway (on- and off-ramps);
   - Pruneridge Avenue/North Wolf Road intersection; and
   - North Wolf Road/Apple Campus Road intersection.

   The adequacy of queuing length versus storage capacity should be examined using 95 percentile queuing analysis Poisson Probability distribution.

8. Elements of the Silicon Valley Intelligent Transportation System (SV-ITS), such as fiber optics along Wolfe Road, may exist within the proposed project limits. Please consult with City of San Jose, who is the lead agency for the SV-ITS Program.

9. There are Traffic Operations Systems (TOS) elements along I-280 that may be affected by the project. At the I-280/Wolfe Road interchange, this would include closed circuit television (CCTV), extinguishable message sign (EMS), off-ramp detection, etc. Cabinets, conduits, connections to service points and other elements would be part of these installations.

10. All active TOS elements must be kept operational throughout the construction phase of this project. The existing and operational TOS elements that may be affected by this project must be relocated, modified, or fully replaced as necessary.

11. Mitigation for any roadway sections or intersections with increasing VMT should be identified. Mitigation may include contributions to the regional fee program as applicable (described below), and should support the use of transit and active transportation modes. Potential mitigation measures that include the requirements of other agencies such as Caltrans are fully enforceable through permit conditions, agreements, or other legally-binding instruments under the control of the City.

12. The project's effect on pedestrians, bicyclists, and transit performance should be based on any projected VMT increases and evaluating mitigation measures and tradeoffs. The analysis should describe any pedestrian and bicycle mitigation measures and safety countermeasures that would be needed as a means of maintaining and improving access to transit facilities and reducing vehicle trips (described below).

Vehicle Trip Reduction
Caltrans encourages the City to increase the number of housing units in the Plan and project, to achieve a better housing to jobs balance and reduce vehicle trips. Adding housing to the Plan and project may also help to offer greater flexibility for any transportation mitigation required as a result of this project. This would promote mass transit use, walking, and bicycling, thereby reducing regional vehicle miles traveled (VMT) and traffic impacts.

Travel Demand Management (TDM) measures can include lower parking ratios, car-sharing programs, transit subsidies for employees and residents, bike racks and storage. TDM programs should be monitored and documented with annual reports by an onsite TDM coordinator to demonstrate effectiveness. This smart growth approach is consistent with MTC's Regional Transportation Plan/Sustainable Community Strategy goals of both increasing non-auto mode transportation, and reducing per capita VMT by 10 percent each.

The project should also study improvements to pedestrian, bicycle, and transit infrastructure and services as a way to decrease vehicle trips and impacts to the State Highway System, such as development of the shared bike/pedestrian path along the Calabazas Creek. The shared path would help promote active transportation travel and help better connect the project site to the surrounding neighborhoods.

A fully connected network of bicycle and pedestrian facilities will provide a viable alternative to driving, facilitate transit use, and help reduce air pollution and greenhouse gas emissions. The project should propose clear, actionable language for the proposed bicycle and pedestrian facilities, to ensure improvements are constructed as specified in the proposed project. Sidewalks "must" (not "should") comply with the Americans with Disabilities Act (ADA) and ensure ADA accessibility.

Design
Please provide five (5) complete sets of preliminary Plan and project design plans for Caltrans' review.

Traffic Impact Fees
Given the project's contribution to area traffic and its proximity to I-280, the project should contribute fair share traffic impact fees. These contributions would be used to lessen future traffic congestion and improve transit in the project vicinity. The following projects have been submitted by VTA to MTC to be considered for the next Regional Transportation Plan (RTP). They are located within close proximity to the Vallco Mall project site and, therefore, should be considered as potential mitigation projects toward which the City can contribute mitigation fees:

- I-280 Express Lanes: Leland Avenue to Magdalena Avenue, which is already in the current RTP Plan Bay Area, RTP ID 240513 and to be rolled into the next RTP;
- I-280/Stevens Creek Boulevard/Lawrence Expressway Interchange Improvements;
- I-280/De Anza Boulevard Interchange Improvements; and
- I-280/Wolf Road Interchange Improvements.

Voluntary Contribution Program
Caltrans encourages the City to participate in the VTA's voluntary contribution program and plan for the impact of future growth on the regional transportation system.

Transportation Management Plan (TMP)
Since it is anticipated that vehicular, bicycle, and pedestrian traffic along I-280 will be impacted during the construction of the proposed project requiring traffic restrictions and detours, a Caltrans-approved TMP or construction TIA may be required for approval by Caltrans prior to construction to avoid project-related impacts to the State Highway System. These must be prepared in accordance with Caltrans' *TMP Guidelines*. Further information is available for download at the following web address:
www.dot.ca.gov/hq/traffops/trafmgmt/tmp_lcs/index.htm.

Please ensure that such plans are also prepared in accordance with the TMP requirements of the corresponding jurisdictions. In addition, pedestrian access through the construction zone must be in accordance with the ADA regulations (see Caltrans' *Temporary Pedestrian Facilities Handbook* for maintaining pedestrian access and meeting ADA requirements during construction at: www.dot.ca.gov/hq/construc/safety/Temporary_Pedestrian_Facilities_Handbook.pdf) (see also Caltrans' Traffic Operations Policy Directive 11-01 "Accommodating Bicyclists in Temporary Traffic Control Zones" at: www.dot.ca.gov/hq/traffops/policy/11-01.pdf). For further TMP assistance, please contact the Caltrans District 4 Office of Traffic Management Operations at (510) 286-4579.

Transportation Permit
Project work that requires movement of oversized or excessive load vehicles on State roadways requires a transportation permit that is issued by Caltrans. To apply, a completed transportation permit application with the determined specific route(s) for the shipper to follow from origin to destination must be submitted to: David Salladay, District Office Chief, Office of Permits, California Department of Transportation, District 4, P.O. Box 23660, Oakland, CA 94623-0660. See the following website for more information: www.dot.ca.gov/hq/traffops/permits.

Cultural Resources
Caltrans requires that a project's environmental document include documentation of a current archaeological record search from the Northwest Information Center of the California Historical Resources Information System if construction activities are proposed within State ROW. Current record searches must be no more than five years old. Caltrans requires the records search, and if warranted, a cultural resource study by a qualified, professional archaeologist, and evidence of Native American consultation to ensure compliance with CEQA, Section 5024.5 and 5097 of the California Public Resources Code, and Volume 2 of Caltrans' Standard Environmental Reference (www.dot.ca.gov/ser/vol2/vol2.htm).

These requirements, including applicable mitigation, must be fulfilled before an encroachment permit can be issued for project-related work in State ROW. Work subject to these requirements includes, but is not limited to: lane widening, channelization, auxiliary lanes, and/or modification of existing features such as slopes, drainage features, curbs, sidewalks and driveways within or

adjacent to State ROW.

Encroachment Permit
Please be advised that any work or traffic control that encroaches onto the State ROW requires an encroachment permit that is issued by Caltrans. To apply, a completed encroachment permit application, environmental documentation, and five (5) sets of plans clearly indicating State ROW must be submitted to: David Salladay, District Office Chief, Office of Permits, California Department of Transportation, District 4, P.O. Box 23660, Oakland, CA 94623-0660. Traffic-related mitigation measures should be incorporated into the construction plans prior to the encroachment permit process. See this website for more information: www.dot.ca.gov/hq/traffops/developserv/permits.

Should you have any questions regarding this letter, please contact Brian Ashurst at (510) 286-5505 or brian.ashurst@dot.ca.gov.

Sincerely,

PATRICIA MAURICE
District Branch Chief
Local Development - Intergovernmental Review

c: Scott Morgan, State Clearinghouse
Robert Swierk, Santa Clara Valley Transportation Authority (VTA) – electronic copy
Robert Cunningham, Santa Clara Valley Transportation Authority (VTA) – electronic copy

County of Santa Clara
Roads and Airports Department

101 Skyport Drive
San Jose, California 95110-1302
1-408-573-2400

November 16, 2015

Piu Ghosh
Senior Planner
City of Cupertino, Community Development Department
10300 Torre Avenue
Cupertino, CA 95014

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report
Vallco Shopping District Specific Plan and The Hills at Vallco Project

Dear Ms. Ghosh:

The County of Santa Clara Roads and Airports Department appreciates the opportunity to review to the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) and is submitting the following comments.

A Transportation Impact Analysis (TIA) should be prepared for the proposed project following the latest adopted Congestion Management Program (CMP) TIA Guidelines to identify significant impacts for the DEIR. County requests, at a minimum, to include the following intersections for analysis:

- All CMP and non-CMP intersections along Lawrence Expressway between Homestead Road and Saratoga Avenue.
- All CMP and non-CMP intersections along San Tomas Expressway between Homestead Road and Moorpark Avenue.

The analysis should be conducted using most recent counts and County signal timing for County study intersections. Please contact Ananth Prasad at (408) 494-1342 or Ananth.Prasad@rda.sccgov.org for the correct signal timing.

The preliminary *Comprehensive County Expressway Planning Study – 2040* project list should be consulted for a list of mitigation measures for significant impacts to the expressways. Should the preliminary *Expressway Plan 2040* project list not include an improvement that would mitigate a significant impact, the TIA should identify mitigation measures that would address the significant impact. Mitigation measures listed in the TIA should be incorporated into the EIR document.

Board of Supervisors: Mike Wasserman, Cindy Chavez, Dave Cortese, Ken Yeager, S. Joseph Simitian
County Executive: Jeffrey V. Smith

If you have any questions or concerns about these comments, please contact Aruna Bodduna at (408) 573-2462 or aruna.bodduna@rda.sccgov.org.

Sincerely,

Dawn S. Cameron
County Transportation Planner

cc: MA, AP

November 16, 2015

Piu Ghosh
City of Cupertino, Community Development Department
10300 Torre Avenue Cupertino, CA 95014

RE: Nitrogen Deposition Impacts from The Hills at Vallco Project

Dear Mr. Ghosh:

The Santa Clara Valley Habitat Agency (Habitat Agency), as a responsible public agency tasked with conserving natural communities and the recovery of state and federal special status species covered by the Santa Clara Valley Habitat Plan (Plan), wishes to bring to the City of Cupertino's attention Project impacts that could detrimentally effect the Habitat Agency's ability to implement several of the Plan's conservation goals and objectives.

The development of 1.2 million square feet of mixed use commercial, residential, and office units represents an increase in project-specific nitrogen deposition in the area. Construction of additional units will increase daily vehicle trips, which will cause an increase in locally promulgated ambient nitrogen resulting in indirect harm species covered by the Santa Clara Valley Habitat Plan. The Habitat Agency believes the City of Cupertino, as the CEQA lead agency, has the responsibility to ensure proper mitigation for all project impacts. The Hills at Vallco Project development will result in both project-specific and a cumulative increase in nitrogen deposition.

Impacts of Nitrogen Deposition

The additional vehicle trips associated with the Project will result in increased nitrogen deposition which will have significant impacts on the local serpentine grassland communities. Atmospheric nitrogen deposition is a complex process by which reactive nitrogen (N) – nitrogen oxides (NOX), ammonia (NH3), and their reaction products – are deposited onto surfaces and enter ecosystems as N-fertilizer. N-deposition estimates (from varied studies) for the Santa Clara Valley range from 8–20 kilograms of nitrogen per hectare per year (kg-N/ha/y). In Santa Clara County, N-deposition threatens serpentine grasslands that support numerous covered species, including the threatened Bay checkerspot butterfly (Euphydryas editha bayensis). The added nitrogen allows nutrient-poor serpentine soils to be invaded by non-native annual grasses and other weeds that displace the native forbs that provide caterpillar food and adult nectar for the butterfly. N-deposition is the largest indirect impact of urban development on the serpentine grassland ecosystem.

In addition to impacts on serpentine grasslands, the effects of N-deposition on non-serpentine annual grasslands and the grassland understory of oak woodlands are similar to those on serpentine grassland—increased annual grass growth displaces native forbs. Non-serpentine annual grasslands and oak woodlands in the study are extensive (310,875 acres, or 60% of the Plan area), so these adverse effects could be widespread.

The Santa Clara Valley Habitat Plan provides a recovery strategy for serpentine habitats and the plant and animal species that depend on them, but the strategy is not entirely self -contained. The Plan both mitigates for impacts from covered activities within the Plan area over the Plan term and also provides additional

conservation to meet the State of California standard for species recovery. However, this strategy alone is insufficient to completely restore local serpentine communities or to offset any conceivable future nitrogen deposition impacts. The primary reason for this is that the Plan is necessarily limited to mitigating for impacts from Plan-covered activities, while the impacts come from projects distributed over a much broader area and over a much greater period. Studies reveal that a significant portion of N-deposition affecting covered species within the Plan area can be traced to sources outside the Plan area. The amount that various sources contribute to deposition was assessed with different modeling approaches. The most complete of these methods was the use of the Particle Precursor Tagging Methodologies (PPTM) tagging approach in Community Multi-scale Air Quality Model (CMAQ). In the base year, the CMAQ PPTM simulation attributes 30% of the total nitrogen deposition to mobile sources within the study area. Another 16% of the nitrogen deposition comes from stationary sources in the study area.

Therefore, only 46% of nitrogen deposition on the habitat areas comes from existing development and vehicle traffic generated locally within the study area. The areas of Santa Clara County not covered by the Plan contribute 17% of the nitrogen deposition while 11% of the deposition comes from other Bay Area counties. The CMAQ simulation indicates that the remaining 26% of the N-deposition comes from anthropogenic emissions in the remainder of the modeling domain (i.e., most of the remainder of California other than Bay Area counties and a portion of Nevada), initial and boundary concentrations (i.e., effects from outside of the modeling domain), and biogenic emissions within the Bay Area counties" (Habitat Plan, p. 4-71).

A complete conservation strategy would rely upon project specific mitigation contributions from cities outside the Plan area as those projects do create additional impacts which are not covered by the Plan conservation strategy. This is because additional nitrogen deposition, over and above that covered by the Plan, will likewise result in even more invasive weed encroachment on serpentine habitats. In other words, the Plan assumes a set amount of weed encroachment based on Plan covered activities and provides mitigation and recovery for that, but there will always be additional weed encroachment impacts to be mitigated as long as there are nitrogen emitting sources outside of those covered by the Plan. Those impacts should be considered, analyzed and mitigated as part of the CEQA review from any Lead Agency proposing a project that results in increased nitrogen emissions.

Conclusion

The additional vehicle trips associated with the Project present significant impacts to N-deposition and consequently covered species under the Plan. The Plan's conservation strategy does not mitigate for all of the impacts to N-deposition and must rely on project specific contributions from cities outside the Plan area. The Plan requires all projects to mitigate for indirect impacts to N-deposition through a nitrogen deposition fee. The Plan's nitrogen deposition fee is based upon new daily vehicle trips. This project will generate approximately significant new daily vehicle trips, which will result in significant nitrogen deposition that is not offset by Plan mitigation fees.

The Habitat Agency will accept voluntary fee payments received from applicable public and private entity projects, such as the The Hills at Vallco development, to mitigate said project impacts associated with N-deposition. Each voluntary fee payment would be applied to the Plan conservation strategy and tracked by the Habitat Agency. Nitrogen deposition voluntary fee payments will be applied toward land acquisition, management, and monitoring for Bay checkerspot butterfly and serpentine covered plant species. See full Voluntary Fee Policy Here.

If you have any questions concerning the Habitat Agency's comments specific to the The Hills at Vallco Project or Plan implementation please do hesitate to give us a call. Thank you.

Sincerely,

Edmund Sullivan
Executive Officer

Loma Prieta Chapter serving San Mateo, Santa Clara & San Benito Counties

Piu Ghose, Senior Planner,
Community Development Department
City of Cupertino
10350 Torre Ave
Cupertino, CA 95014

Via email: planning@cupertino.org

Reference "The Hills of Vallco" EIR Scoping Comments

Dear Sir or Madam:

Thank you for providing the opportunity for the Sierra Club Loma Prieta Chapter's Sustainable Land Use committee to comment on the NOP for The Hills at Vallco. As an environmental organization working towards reducing local greenhouse gas emissions, the Sierra Club encourages the development of higher density mixed-use development near major transit.

> There is much in the proposed project that is laudable and meets our Guidelines for Mixed Use Development.[1] The ingenious creation of open space in the heart of the city center, on the large green roof makes this development proposal uniquely attractive.

Once the draft environmental impact report is released to the public, and further details on the proposed development are made available, we will evaluate it using our Guidelines to decide whether it could qualify for Sierra Club endorsement.

At this time, we have some issues that we ask you to include in the upcoming draft environmental impact report.

There are two issues that stand out that require serious rethinking:

1. **The problem of transportation and traffic caused by the development:** The site is located adjacent to highway 280 but far any regional transit hub. Highway 280 is currently at or near capacity. Stevens Creek Boulevard is anticipated to receive bus rapid transit in the near future, however the percentage of mode shift it will carry will not cover the anticipated increase in traffic. In addition, there is the cumulative effect of several large developments in the area.

2. **Jobs housing imbalance:** 2,000,000 sf of office area and 1,000,000 sf of retail and event space are balanced by only 800 units of housing within the proposal. It is clear that the development will generate a severe jobs/housing imbalance. The project will generate 8,000- 10,000 jobs yet there are only 800 homes proposed at this location, to balance these

[1]Sustainable Land Use Committee Guidelines: http://lomaprieta.sierraclub.org/sustain/guidelines

jobs. This will clearly generate a great deal of traffic as well as greenhouse gas emissions. When this development is considered along with Apple's mega office development, across the freeway, and other nearby development, the traffic implications in the area are extremely serious.

Jobs Housing Fit ALTERNATE : We request that one of the alternates that is studied in the EIR will be an better balance of housing to commercial and office space. It is critical that large developments be looked at in the context of the traffic and greenhouse gas emissions that they generate and we expect that the EIR will look at an option that aims to reduce new traffic impact to a minimum.

"No net new trips": Many peninsula cities are developing specific plans for their priority development areas, allowing higher densities along transit, Cities are realizing that it is critical to include housing within the new specific plan areas to balance the jobs that new commercial/office developments are creating. At the same time, the peninsula is in a serious housing crisis and it is reasonable to require that large developments provide workforce housing to support the jobs they are creating.

Therefore we expect the EIR to consider an option with "no net new trips". This has been successfully implemented most notably at Stanford University which has about a 55% drive alone ratio. The City of Mountain View has recently put in place a goal for 45% drive alone ratio for its North Bayshore area with monitoring to ensure that this goal is achieved. It is critical for the EIR to examine how new developments need to approach development with this mindset

Transportation demand management: The EIR should evaluate the effect of a robust transportation demand management (TDM) program and analyze the traffic reduction that can be achieved by putting one in place. An effective TDM program can reduce traffic significantly and shift mode share to more transit usage and active transportation. A Transportation Management Association (TMA) is one of the most effective means of achieving mode shift goals, with active monitoring and reporting and penalties for missing targets. A TMA also has the added benefit of providing an umbrella group for small business owners and apartment buildings to benefit from the economies of scale. There are several successful TMAs currently operating in the Bay Area.

Cumulative effects: Apart from the proposed development in this location, there are many other projects that will be going up in the nearby area, within the next several years. In addition to the new Apple campus and Hampton Apartments, there is development on the Oaks, Target and Marina Market sites. We expect the EIR to consider the cumulative impacts of these developments on traffic.

Additional issues:

a. Residential Permit Parking Program: Given the traffic and parking issues related to the development, the EIR should evaluate the benefits of instituting a Residential Permit Parking Program in the adjacent neighborhoods to prevent excessive driving around the neighborhoods, and resultant greenhouse gas emissions, by visitors to the Hills at Vallco, looking for free parking.

b. Smart Parking: The EIR should consider the reduction in GHG that can be achieved by the development adopting Smart Parking where drivers can easily find an empty parking space without driving around, pay fast and efficiently using auto-pay systems (using transponders) to avoid idling, and that uses congestion pricing to use parking space most efficiently.

c. Greenhouse gas emissions**:** Consider lifecycle greenhouse gas emissions in the construction methods and materials used.

d. Consider the ability of the green roof vegetation to absorb carbon dioxide**:** In addition, where native plants are used, which have deep and extensive root systems, they have the benefit of generally providing greater carbon sequestration than non-native plants.

e. Consider the mitigation value of smart windows which can change reflectivity and transmission in reducing the heating and energy demands of the different buildings.

f. Solar Energy: Consider the possibility of replacing some of the planting , such as the vineyard, with energy generating usage such as solar panels. It is possible that the shade from elevated panels can be used to support other food crops that prefer shade.

g. Water supply: We have a water shortage in California that is going to become increasingly severe in the coming decades. The EIR should consider a gray water system for all the buildings in the complex to recycle 100% of the gray water for landscaping irrigation. It is also important, at the same time, to keep in mind that not all planting can accept gray water or recycled water for healthy growth.

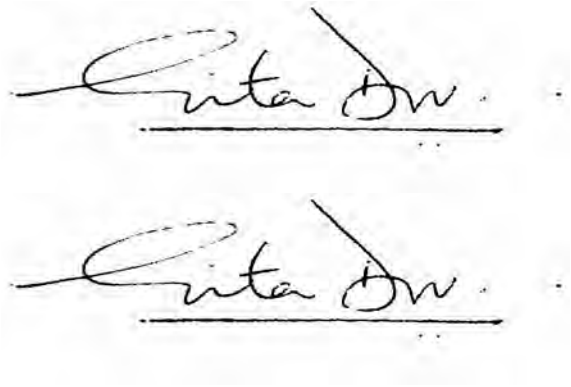
h. Storm water: The EIR should consider that storm water needs to be managed using low-impact development in brackets and IP techniques. These techniques help to recharge the groundwater basins and prevent pollution from reaching base and creeks.

i. Smart city[2]: the smart city is a standard developed by an association of cities and uses 17 performance indicators on the efficiency of its resource usage reducing long-term costs and aiming towards the sustainable development. In the EIR we ask that these performance indicators be considered in order to promote environmental energy and resource efficiency.

Thank you for considering our recommendations for what should be included in the draft environmental impact report we look forward to reviewing the draft when it is issued

Respectfully submitted,

[2] Smart City under iso:37120. http://smartcitiescouncil.com/article/dissecting-iso-37120-why-new-smart-city-standard-good-news-cities



Gita Dev, Co-Chair
Sustainable Land Use Committee
Sierra Club Loma Prieta Chapter

SANTA CLARA
Valley Transportation Authority

November 16, 2015

City of Cupertino
Public Works Department
10300 Torre Avenue
Cupertino, CA 95014

Attention: Piu Ghosh

Subject: Vallco Shopping District-Hills at Vallco

Dear Mr. Ghosh:

Santa Clara Valley Transportation Authority (VTA) staff have reviewed the NOP for a specific plan and a development project that includes up to 2 million square feet of office, 625,000 square feet of commercial, and 800 residential units on the north side of Stevens Creek Boulevard, on both sides of Wolfe Road. We have the following comments.

Land Use

VTA supports the proposed land use intensification of these important sites in the Stevens Creek Boulevard corridor, where VTA is planning to implement Rapid 523 enhanced bus service as a near term improvement and early deliverable of the Stevens Creek Boulevard Bus Rapid Transit (BRT) Project. The site is currently served by the VTA Local Bus Line 23 and Limited Line 323 along Stevens Creek Boulevard and four additional VTA bus lines on North Wolfe Road and Vallco Parkway. Besides intensifying land uses near this key transit corridor, by including a mix of office, retail, residential and recreational uses in a walkable design the project will create greater opportunities for residents and employees to accomplish daily tasks by walking and bicycling, thereby incrementally reducing the vehicle miles traveled and greenhouse gas emissions associated with the project.

Stevens Creek Boulevard is identified as Corridors in VTA's Community Design & Transportation (CDT) Program Cores, Corridors and Station Areas framework, which shows VTA and local jurisdiction priorities for supporting concentrated development in the County. The CDT Program was developed through an extensive community outreach strategy in partnership with VTA Member Agencies, and was endorsed by all 15 Santa Clara County cities and the county.

Proposed Transit Center

The Project Description posted to the City's website (September, 2015) notes that "The Hills at Vallco will be designed with the north side of Stevens Creek Boulevard between Wolfe Road and Perimeter Road as transit center location. The complimentary community shuttle, VTA local

and express buses, future Bus Rapid Transit, corporate shuttles, and sharing economy transportation services will all make regular stops at the transit center. The transit center will specifically accommodate the existing VTA's existing Stevens Creek Boulevard bus lines 23 and 323." (pg. 16)

VTA appreciates and supports the applicant's effort to accommodate transit service at this location. However, based on the Civil Plans for the project, the proposed Transit Center design appears to require buses to enter a "duck out" and then re-enter traffic. This design would not be appropriate for VTA's existing Stevens Creek Boulevard bus lines 23 and 323 or future Rapid 523/Bus Rapid Transit (BRT) service. These through services need to maintain acceptable travel speeds and service reliability in order to attract transit ridership. As such, a bulb-out or in-line transit stop which does not require buses to wait to re-enter traffic would be more appropriate for these services. A bus duck-out design may be more appropriate for transit services that terminate, originate or lay over at the Hills at Vallco, such as the other (non-VTA) transit services identified in the Project Description.

Starting in the fall of 2017, VTA will be providing the Rapid 523 service to connect DeAnza College and the Berryessa BART Station. Both lines 23 and 523 will have 60-foot articulate buses. As a result, this bus stop will need to accommodate two articulate buses at the same time. We recommend the project construct a bulb-out or in-line stop, with a minimum of 165' bus pad and a 133' passenger loading area.

VTA requests a meeting with the City and project applicant to discuss how VTA transit will be accommodated at this location.

Potential Congestion Impacts on Transit Travel Times

The Transportation analysis in the DEIR should address any potential impacts that increased motor vehicle traffic and congestion associated with the project may have on transit travel times, particularly in the Stevens Creek Boulevard corridor. While VTA is supportive of increasing development densities along this corridor, increased congestion could degrade the schedule reliability of transit and increase travel times, making transit a less attractive option for travelers in the corridor. If increased transit delay is found, transit priority measures, such as dedicated transit lanes, queue jump lanes, transit priority signal timing, and/or improvements to transit stops and passenger amenities, would constitute appropriate offsetting measures.

Relationship to North Wolfe Road/I-280 Interchange Project

The Project Description notes that "The Hills at Vallco will spearhead the widening and rebuilding of the Wolfe Road/Hwy. 280 bridge and interchange" (pg. 16). VTA requests that the City and applicant ensure that project designs preserve all existing right-of-way at the interchange and that the City and applicant stay in close coordination with VTA and Caltrans about the design and right-of-way requirements for the interchange improvements.

Pedestrian and Bicycle Accommodations

VTA commends the City and applicant for taking a thoughtful approach to pedestrian and bicycle accommodations, as detailed in the application materials. VTA recommends that the City pay close attention to the treatment of pedestrians and bicyclists along the project's arterial roadway frontages (e.g. Stevens Creek and South Wolfe Road) in addition to internal roadways, as well as crossing improvements at the Stevens Creek/S Wolfe Road intersection and the I-280/Wolfe interchange.

VTA has the following specific comments related to pedestrian and bicycle accommodations:

Pedestrian Connectivity

- VTA commends the applicant for proposing additional at-grade crossings of S. Wolfe Road along with the Perimeter Road Tunnel.
- It does not appear that sidewalks will be provided on inside of Perimeter Road for entire length. VTA recommends including sidewalks on inside of Perimeter Road for entire length in addition to the proposed two-way shared use path on outside of Perimeter Road.
- No pedestrian connections to adjacent residential neighborhoods are proposed. VTA suggests providing pedestrian connections to the site at Amherst Drive and Wheaton Drive, to connect the development to the community and encourage access to the site by foot and bike rather than by car.

Bicycle Facilities

- Wolfe Road is a Cross-County Bikeway Corridor, as identified in VTA's Countywide Bicycle Plan (2008). It provides connections from Sunnyvale to Saratoga. VTA suggests seeking opportunities to improve the bike lane along Wolfe, above and beyond the proposed green paint.
- VTA suggests separating bicycle and pedestrian uses along Perimeter Trail by providing Class I bike path with adjacent sidewalk.
- VTA notes that the nomenclature for bicycle facilities is inconsistent and does not always match Caltrans' nomenclature. (E.g. the bike path on outside of Perimeter Road is labeled on Architectural drawings as Class II bike lanes, Class I Bike Lane, etc.)
- It should be assumed that bicyclists might be using all roadways, including those with parallel trails. See VTA's Bicycle Technical Guidelines for recommendations for shared roadways, especially recommended lane widths and speeds.

Vehicle Lanes & Widths

- Several interior roadways have three and four-lane cross-sections. VTA recommends using two-lane cross sections whenever possible. This improves pedestrian and bicyclist safety by reducing speeds, reducing crossing widths, and reducing conflict points.

Transportation Demand Management (TDM) Program

The Project Description notes that the Specific Plan will include a "Transportation Demand Management plan/memo, which may include a parking policy and management plan" (pg. 22). The Project Description later notes that the project TDM Program will include bicycle improvements, circulation improvements, carpool/car share programs, financial incentives, and transportation management (pgs. 28-29).

VTA commends the City and applicant for committing to adopt a TDM Program as part of the project. VTA also recommends that the TDM Program include specific vehicle trip reduction targets for both office and retail employees, as well as third-party monitoring of trip generation upon project completion and a Lead Agency enforcement/penalty structure.

Transportation Impact Analysis (TIA) Report

VTA's Congestion Management Program (CMP) requires a Transportation Impact Analysis (TIA) for any project that is expected to generate 100 or more net new peak-hour trips. Based on the information provided on the size of this project, a TIA may be required. The updated 2014 VTA *TIA Guidelines*, which can be found at http://www.vta.org/cmp/tia-guidelines, include updated procedures for documenting auto trip reductions, analyzing non-auto modes, and evaluating mitigation measures and improvements to address project impacts and effects on the transportation system. For any questions about the updated *TIA Guidelines*, please contact Robert Swierk of the VTA Planning and Program Development Division at 408-321-5949 or Robert.Swierk@vta.org.

Trip Generation Assumptions

The assumptions about the project's trip generation and any trip reductions for the existing uses should be clearly documented. The proposed project is described in the NOP as 2 million square feet of office uses, 625,000 square feet of commercial uses and 800 residential units, replacing existing retail development on the site. Please see sections 2.1 (6) and 7.2 of the updated 2014 *TIA Guidelines* for guidance on trip generation assumptions for project sites with existing uses and/or development rights.

Freeway Analysis

Based on the project's location, there may be impacts to one or more freeway segments. If the freeway analysis indicates significant impacts based on CMP criteria, VTA suggests early coordination with the appropriate agencies in identifying potential mitigation measures and opportunities for voluntary contributions to regional transportation improvements in or near the impacted facility in the latest Valley Transportation Plan (VTP).

Thank you for the opportunity to review this project. If you have any questions, please call me at (408) 321-5784.

Sincerely,

Roy Molseed
Senior Environmental Planner

cc: Patricia Maurice, Caltrans
Brian Brandert, Caltrans

CU1501

From: Cunningham, Robert [mailto:Rob.Cunningham@vta.org]
Sent: Thursday, November 12, 2015 12:54 PM
To: City of Cupertino Planning Dept.; David Stillman
Cc: Swierk, Robert
Subject: Transportation Impact Analysis (TIA) Requirements

Hi Piu,

Thanks again for meeting with us to discuss land use projections in Cupertino. We will get you updated development assumptions based on the conversation soon.

As promised, I am sending further information about the Transportation Impact Analysis (TIA) Notification step I discussed in the meeting. The TIA Notification Form is attached. As you can see, it is a single-sided form meant to provide basic information about the transportation analysis that will be conducted. The purpose is to give interested agencies a chance to comment on the scope of analysis and hopefully alert the Lead Agency of any major issues before the TIA/DEIR is released, potentially saving time and effort in the long run. Therefore we recommend that the City circulate the TIA Notification when scoping the TIA to VTA and other agencies with jurisdiction over facilities that will be included in the transportation analysis, e.g. nearby Cities, Caltrans, County Roads and Airports, etc.

I have also attached the full TIA Guidelines, which include the overview of the TIA process on pages 11-14. Your transportation consultants will most likely already have the Guidelines. Let me know if you have any further questions about the TIA process.

As I mentioned at the meeting, VTA would like to meet with the City sooner rather than later to discuss potential transportation solutions for the Hills at Vallco project, including but not limited to the proposed transit center, the Wolfe/I-280 interchange, and pedestrian/bicycle treatments along the external arterials. Please use my contact information in my signature below to get in touch when the City is ready to meet.

Lastly, please see my quick email on SCCAPO from earlier this morning and get back to me when you get the chance.

Thanks,

Rob

Robert Cunningham
Transportation Planner
Planning and Program Development
Santa Clara Valley Transportation Authority
(408) 321-5792 Robert.Cunningham@vta.org

Two PDFs attached to this email.

CMP ID: ☐

Congestion Management Program
Transportation Impact Analysis (TIA) NOTIFICATION FORM

Lead Agency: _____

Lead Agency File Number: _____

Project: _____

Project Size (SF or DU): _____

Net New Trips: _____

Project Address: _____

Analysis Periods: _____

Analysis Scenarios: _____

Study Intersections: *(continue in attachment if necessary)* _____

Study Freeway Segments: *(continue in attachment if necessary)* _____

Agency Contact: _____

Telephone: _____

E-mail: _____

Developer: _____

Transportation Consultant: _____

Form Prepared By: _____

Date: _____

This form sent to:

Agency	Name of Person(s)
☐ City of Campbell	
☐ City of Cupertino	
☐ City of Gilroy	
☐ City of Los Altos	
☐ Town of Los Altos Hills	
☐ Town of Los Gatos	
☐ City of Milpitas	
☐ City of Monte Sereno	
☐ City of Morgan Hill	
☐ City of Mountain View	
☐ City of Palo Alto	
☐ City of San Jose	
☐ City of Santa Clara	
☐ City of Saratoga	
☐ City of Sunnyvale	
☐ County of Santa Clara	
☐ Caltrans	
☐ VTA	

* SF=square feet; DU=dwelling units

Note: The Lead Agency is encouraged to submit the draft TIA work scope along with this form when circulating it to other agencies. Comments from interested agencies on the TIA scoping must be received by the Lead Agency within 15 calendar days of the mailing of this TIA Notification Form.

TRANSPORTATION IMPACT ANALYSIS GUIDELINES

ADOPTED OCTOBER 2014

SANTA CLARA VALLEY TRANSPORTATION AUTHORITY

CONGESTION MANAGEMENT PROGRAM

Santa Clara Valley Transportation Authority
CONGESTION MANAGEMENT PROGRAM

TRANSPORTATION IMPACT ANALYSIS GUIDELINES

October 2014

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PART I - STATUTE AND AUTHORITY

Chapter 1. CMP Statute and Intent of VTA *TIA Guidelines*

On January 1, 1995, the Santa Clara Valley Transportation Authority (VTA) was designated as Santa Clara County's Congestion Management Agency. The Congestion Management Program (CMP) statute requires that uniform methods be used for evaluating transportation impacts of land use decisions on the CMP System. Furthermore, the statute allows the agency responsible for the CMP to choose the analysis methods.

This document presents VTA's guidelines for preparing Transportation Impact Analyses (TIAs) for CMP purposes. TIAs are prepared to assess the transportation impacts of land development projects and to assist in identifying improvements to minimize a development project's impacts. TIAs are prepared by local jurisdictions as part of environmental assessments completed for development proposals. These *Guidelines* are intended to be used by Member Agencies as part of their regular process of evaluating land use decisions and may be viewed as a minimum scope for assessing transportation impacts. Member Agencies may maintain their own guidelines that supplement the procedures in the VTA *TIA Guidelines*, and Member Agencies may also have a lower size threshold for when a transportation analysis must be prepared in their jurisdiction. Therefore, a TIA may not be required by the CMP but may be required by Member Agencies.

The VTA *TIA Guidelines* are intended for transportation analysis related to land development projects. The VTA *TIA Guidelines* may be used as a reference point for the analysis of transportation improvement projects, subject to the judgment of the Lead Agency.

It is not intended that TIAs following the VTA CMP *TIA Guidelines* will provide all information required for California Environmental Quality Act (CEQA) purposes. VTA encourages Member Agencies to include any other pertinent information not outlined in the VTA *TIA Guidelines* to identify environmental impacts.

Finally, VTA encourages the development of transit-friendly, pedestrian-friendly, and bicyclist-friendly land use projects. In particular, projects in Cores, Corridors or Station Areas as defined in the VTA Community Design and Transportation (CDT) Program *Manual of Best Practices for Integrating Transportation and Land Use* are encouraged to follow CDT Program best practices.

1.1 Background

The *TIA Guidelines* were originally included in Santa Clara County's 1991 Congestion Management Program (CMP). In 1993, the CMP technical documents, including the VTA *TIA Guidelines*, were published in a document titled *Technical Standards and Procedures for the Santa Clara County Congestion Management Program*. Since then, the VTA *TIA Guidelines* has been subsequently updated.

This document supersedes the 2009 *TIA Guidelines* and includes the following sections:

Part I: Statute and Authority
- Chapter 1. CMP Statute and Intent of VTA *TIA Guidelines*
- Chapter 2. TIA Scoping

Part II: Notification and Review
- Chapter 3. TIA Notification, Preparation and Review Process

` Part III: TIA Contents and Methodology
- Chapter 4. Recommended TIA Table of Contents
- Chapter 5. Analysis Periods and Methodologies
- Chapter 6. Existing Conditions
- Chapter 7. Background Conditions
- Chapter 8. Trip Generation and Auto Trip Reductions
- Chapter 9. Project Conditions and Impacts/Effects
- Chapter 10. Mitigation Measures and Multimodal Improvements
- Chapter 11. Future Year Scenarios (Cumulative Conditions)

Part IV: Other Considerations
- Chapter 12. Special Project Types

1.2 Definition of Transportation Impact Analysis

Transportation Impact Analysis (TIA) is the term used for the study of the expected effects of development projects on transportation facilities. The TIA's purpose is to determine whether the transportation system can accommodate the activity generated by the proposed development project and if improvements are needed to the roadways, bicycle and pedestrian facilities, and transit services and facilities affected by the project. TIA Reports are also intended to assist in identifying improvements to minimize a development project's transportation impacts, which may include reducing the number of automobile trips the project generates. This documentation helps decision makers determine whether to approve the project and what conditions to impose on the project.

1.3 Legislative Requirement

California's CMP statute requires that all CMAs develop a uniform program for evaluating the transportation impacts of land use decisions on the designated CMP System. Specifically, CMP Statute requires:

> *A program to analyze the impacts of land use decisions made by local jurisdictions on the regional transportation systems, including an estimate of the costs associated with mitigating those impacts. [California Government Code: 65089 (b) (4).]*

The *TIA Guidelines* are designed to meet the requirement for a uniform land use impact analysis program in the CMP Statute.

In order to conform with the CMP, Member Agencies must follow the methodologies described in this document to evaluate the transportation impacts of development projects on the CMP System.

In addition, as part of the CMP Land Use Impact Analysis Program, all Member Agencies are required to forward a summary of land use changes and their transportation impacts to VTA on an annual basis. The purpose of collecting land use data on an annual basis is to ensure that development projects that do not meet the threshold for preparing a TIA are evaluated in the CMP process. This land use data will be incorporated into the countywide transportation model maintained by VTA and will be used to monitor conformance with the CMP. Please see the latest version of VTA's *CMP Annual Monitoring and Conformance Requirements*, for more information on land use monitoring.

1.4 CMP Transportation Impact Analysis Requirements

Member Agencies must follow the methodologies presented in this document to prepare TIAs for land use decisions that impact the CMP System. In order to conform with the CMP, Member Agencies must do the following:

1. Use the VTA *TIA Guidelines* to evaluate the transportation impacts of all land use decisions within the Member Agency's jurisdiction that are projected to generate 100 or more net new weekday (AM or PM peak hour) or weekend peak hour trips, including both inbound and outbound trips.

2. Submit a copy of the TIA Report to VTA at least 20 calendar days before the development decision or recommendation is scheduled by the Member Agency.

Section 2.1 contains further information about when a TIA must be completed. ***Sections 3.1***, ***3.2*** and ***3.3*** detail the responsibilities of the Member Agency and VTA in meeting the CMP TIA requirements.

1.5 Benefits of CMP Transportation Impact Analysis Guidelines

The most significant benefit of these Guidelines is that they promote the use of uniform procedures for performing TIAs and evaluating land use decisions on CMP facilities in Santa Clara County. The use of these common procedures helps ensure that the performance of the CMP transportation system is not adversely affected by land use decisions, and that opportunities to minimize impacts and improve the transportation system are identified. Moreover, the use of a common set of Guidelines allows each Member Agency to understand the impacts of development projects in other jurisdictions. Furthermore, it allows a Member Agency to request mitigation measures on its transportation facilities as a result of a project under development in another jurisdiction.

The use of a standard set of TIA guidelines is the first step in developing stronger linkages between transportation and land use planning, which is a goal of VTA.

1.6 Exemption Process

Portions of the *TIA Guidelines* described in this document may need to be modified for use in analyzing the impacts of a specific situation. The following process should be used in order to obtain approval for modifying the requirements of the Guidelines contained herein:

1. The Member Agency should contact VTA requesting modification of a specific *TIA Guidelines* requirement for a project.[1] The Member Agency should provide the reasons for the request(s). VTA staff will take action on the request if the request requires immediate action and is of a nature to not require action by VTA Committees.

2. If action cannot be taken by VTA staff, the VTA Technical Advisory Committee (TAC), with input from the Systems Operations & Management (SOM) and Land Use / Transportation Integration (LUTI) Working Groups, will review the request and recommend an action to the VTA Board.

3. The VTA Board will review the TAC's recommendation(s) and take action.

1.7 CMP Technical Standards and Procedures Amendment Process

The VTA *TIA Guidelines* are part of the *Technical Standards and Procedures for the Santa Clara County Congestion Management Program* (referred to throughout this document as the *Technical Standards and Procedures*). The most recent versions of the *Technical Standards and Procedures*, including the *TIA Guidelines*, are posted on the VTA website. The intent is to update the *Technical Standards and Procedures* on a regular basis by providing revisions where appropriate.

Technical Update Memos may be prepared periodically to address technical questions regarding standards and procedures as these questions are raised by Member Agencies. Technical Update Memos are divided into two categories, each having its own approval process, as described below:

1. Memos with New or Revised Requirements: These memos are to be prepared by VTA staff, reviewed by the SOM and LUTI Working Groups and TAC, and approved by the VTA Board.

2. Memos with Clarifications or Additional Information: These memos are to be prepared by VTA staff, and received by the SOM and LUTI Working Groups and TAC.

Once adopted or received, these technical update memos have precedence over or clarify previously adopted procedures. Technical update memos are to be posted on the VTA website and emailed to all members of the VTA TAC, SOM Working Group, and LUTI Working Group.

---

[1] Modifications to VTA *TIA Guidelines* regarding the following aspects of a project's analysis do not require CMP action: trip generation rates, trip distribution/assignment, and default values used in the Auto Level of Service analysis. However, these modifications should be clearly documented in the TIA. Documentation should include source and comparison with values or procedures specified in the VTA *TIA Guidelines*.

The VTA *TIA Guidelines* must be reviewed and revised on a regular basis to incorporate all technical update memos adopted since the last revision and to address new policy direction adopted by the VTA Board. With VTA Board approval the revised *TIA Guidelines* shall be distributed to Member Agencies for incorporation into the *Technical Standards and Procedures*.

1.8 Local Transportation Model Consistency

If travel demand forecasting models are used to evaluate transportation impacts of land use decisions, they must be consistent with the VTA Countywide Transportation Model. VTA has developed procedures for Member Agencies to use in developing consistent models. These procedures are described in the *Local Transportation Model Consistency Guidelines* of the *Technical Standards and Procedures*.

1.9 Document Conventions

Throughout this document, certain conventions are used, which are listed below. In addition to these document conventions, a Glossary with definitions of key terms is provided at the end of the document.

1. The acronym "TIA" is used throughout this document to indicate Transportation Impact Analysis.

2. Unless explicitly identified, all references to documents in these VTA *TIA Guidelines* shall mean the most recent version of the document published.

3. In this document, the word "should" is used to indicate a recommended action. The words "shall" or "must" are used to indicate required actions.

4. The word "facility" is used generally in this document to refer to CMP System roadway facilities, which include CMP intersections, freeways, and rural highways. CMP facilities also include the CMP Transit Network and the CMP Bicycle Network, but these are generally called out specifically in the text.

5. The agency responsible for preparing the TIA is referred to in this document as the "Lead Agency."

Chapter 2. TIA Scoping

This section provides direction on the scoping of TIA studies. The Lead Agency is responsible for scoping the TIA, with input from VTA and other agencies through the process described in ***Chapter 3.*** The description of TIA scoping focuses on three areas:

1. Determining when and if a TIA needs to be completed;
2. Determining roadway facilities to be included in the analysis;
3. Determining other transportation issues to assess.

2.1 When Must a TIA be Completed?

The **Trip Threshold** for when a TIA must be completed is the following:

> A complete TIA for CMP Purposes shall be performed for any project in Santa Clara County expected to generate 100 or more net new weekday (AM or PM peak hour) or weekend peak hour trips, including both inbound and outbound trips.

The following are points that expand or provide detail on the above statement:

1. **Net New Peak Hour Trip:** Net new peak hour trips are defined as those proposed project trips not associated with an existing development on the site and not included in an approved project. If the proposed project involves a vacant or underutilized site with development rights, the number of net new trips that count towards the Trip Threshold are the proposed project trips minus the trips originally associated with the prior development. If the proposed project involves a vacant or underutilized site without development rights, all project trips are considered net new trips and count towards the Trip Threshold. Discounting of trips from existing or entitled development on the project site is subject to Lead Agency discretion. The Lead Agency may always take a more conservative approach than the one outlined in this document. For further guidance on trips from vacant or underutilized development, refer to item 7, below and ***Section 7.2***.

2. **Pass-by and Diverted Linked Trips:** The number of pass-by and diverted linked trips of the proposed project shall not be used to reduce the number of new peak hour trips for determining whether a TIA is to be completed except for the following uses:
    - Gas stations;
    - Fast food restaurants; and
    - Stand-alone mini-markets.

    For these uses, if the pass-by trip reduction results in less than 100 net new weekday peak hour trips, a TIA is not required. However, an operational analysis of the adjacent CMP facilities should be conducted with input from VTA staff. This analysis should be submitted to VTA.

3. **Trip Reductions:** The application of trip reductions (as described in ***Chapter 8, Trip Generation and Auto Trip Reductions***) shall not be used to reduce the number of new peak hour trips for determining whether a TIA is to be completed.

4. **Special Events:** Special events that do not require issuance of a discretionary permit or environmental review do not require a TIA. For example, holding a one-day "Harvest Festival" in a downtown area would not require a TIA, while building a theater for use on an irregular basis would require a TIA.

5. **Addition to Existing Development Project:** A TIA must be completed for an addition to an existing development when the addition is projected to generate 100 or more net new AM or PM peak hour trips.

6. **Revision to Approved Unbuilt Development Project:** A TIA must be completed for an approved but unbuilt development that originally was not projected to generate 100 or more net new weekday peak hour trips, if the development is revised so that it is projected to generate 100 or more net new peak hour trips.

7. **Re-Occupancy of Vacant or Underutilized Development:** Generally, Member Agencies will not require a new TIA to be conducted for the re-occupancy of vacant or underutilized buildings or developments unless a discretionary permit is required from the jurisdiction. A vacant or underutilized building is generally understood to have development entitlement. Two situations are described below that note whether a TIA is required:

    a. **Same Land Use:** A new tenant on a site who is planning to use the site *for the same use (i.e., the land use designation for trip generation calculation purposes would not change)* may not need to conduct a new TIA. For example, if the tenant improvements necessary to re-occupy the site do not require discretionary permits, a TIA is not required by VTA (though a TIA may be required by the Member Agency). However, if the tenant improvements require a discretionary permit and the project produces net new trips that meet or exceed 100 during the peak hour, a TIA is required.

    b. **Change of Land Use:** A new tenant occupying a vacant development or building who is *changing the original use (and, therefore, the site's trip generation characteristics)* may need to conduct a new TIA. If the change of use requires a discretionary permit and the number of net new trips during a peak hour meets or exceeds 100, a TIA is required. If the new land use is expected to generate significantly different travel patterns from the previous use (e.g. conversion from employment to residential), based on engineering judgment, net new trips may be calculated without subtracting all trips associated with the prior development.

    See ***Section 7.2*** for analysis approach for projects involving vacant and underutilized developments.

8. **General Plan Amendment:** General Plan Amendments (GPAs) may be of several types depending upon the jurisdiction and the specific situation. If the GPA approval grants an entitlement to build a specific development project (or allows approval of a project in the future as a right, or through a ministerial act) then a TIA must be completed for the GPA. Conversely, if the GPA does not grant an entitlement, then no TIA is required until a specific project application is considered by the Lead Agency.

   A TIA is not required for a GPA when:
   a. The GPA grants no specific project entitlement;
   b. The GPA is prepared for a citywide plan; or
   c. The GPA is submitted with an entitlement for a specific project, but that project is not expected to generate 100 or more net new peak hour trips.

   As long as a transportation analysis is being completed, VTA recommends that the analysis be consistent with the *TIA Guidelines* to the extent possible. Please refer to ***Section 11.3, Long-Term General Planning Efforts***, for details.

9. **Special Project Types:** For further guidance on large or unique projects; projects on the jurisdiction border; multi-agency projects; projects generating large numbers of pedestrian, bicycle or transit trips; or large projects or plans involving more extensive transit delay analysis, see ***Chapter 12***.

10. **Conformance Exemptions:** Some types of projects and situations are statutorily exempt from conforming with the CMP Auto Level of Service (LOS) standard. If this is the case for the project under consideration, a TIA must still be completed, but the particular exemption should be identified in the TIA Report.

    The types of projects and situations exempted from the CMP Auto Level of Service standards are described in California Government Code Section 65089.44(b). For complete information on how these exemptions is to be addressed in a TIA, see the VTA *Traffic Level of Service Analysis Guidelines.*

    Although these projects or situations are exempt from the CMP Auto Level of Service standard, these exemptions do not apply to the CEQA process. For example, the effects of freeway ramp metering on Auto Level of Service are exempt from the CMP standards; however, the effects of freeway ramp metering should be reflected in evaluating impacts under CEQA to properly address mitigation.

2.2 Which Roadway Facilities Should be Included in a TIA?

The Lead Agency is responsible for determining which CMP roadway facilities should be included in a TIA. The remainder of this section describes procedures for determining inclusion of intersections, freeway segments and rural highway segments on the CMP roadway network in a TIA.

2.2.1 Intersections

A CMP intersection shall be included in a TIA if it meets any one of the following conditions:

1. The proposed development project is expected to add 10 or more peak hour vehicles per lane to any intersection movement;
2. The intersection is adjacent to the project;
3. Based on engineering judgment, Lead Agency staff determines that the intersection should be included in the analysis.

Study intersections should be selected without consideration for jurisdictional boundaries. The 10 or more vehicles per lane requirement applies to any intersection movement (left turn, through or right turn). If a movement uses a shared lane, the shared lane shall be considered a full lane for these calculation purposes. For example, 40 new left turns in two lanes (one left turn lane and one shared left-through lane) should be calculated as 20 vehicles per lane. It should be remembered that this calculation is only intended for determining inclusion of an intersection in a TIA. The allocation of new trips to travel lanes for operational analysis purposes could be quite different from this equal allocation of trips to the travel lanes.

2.2.2 Freeway Segments

A freeway segment shall be included in a TIA if it meets any one of the following conditions:

1. The proposed development project is expected to add traffic equal to or greater than one percent of the freeway segment's capacity. The TIA must provide a tabulation, as shown in ***Appendix A*** (*Table A-1: Sample of Freeway Analysis Requirement Determination*), to show that freeway segments have been assessed to determine if freeway analysis is required, even in the case where it is determined that no freeway segments meet the one percent threshold, or include text indicating that this assessment has been conducted;
2. The proposed development project is adjacent to one of the freeway segment's access or egress points;
3. Based on engineering judgment, Lead Agency staff determines that the freeway segment should be included in the analysis.

The freeway segments analyzed in a TIA shall correspond to the segments included in the latest VTA CMP Monitoring and Conformance Report, which also correspond to Caltrans segment definitions.

For calculating the amount of added traffic compared to freeway segment capacity, the capacities cited in *Highway Capacity Manual 2000 (HCM 2000)* shall be used (2,200 vphpl for four-lane freeway segments and 2,300 vphpl for six-lane or larger freeway segments). For five-lane freeway segments, 2,200 vphpl shall be used for the two-lane direction and 2,300 vphpl for the three-lane direction. Auxiliary lanes shall not be considered for the purpose of this calculation.

2.2.3 Rural Highway Segments

A rural highway segment shall be included in a TIA if it meets any one of the following conditions:

1. The proposed development project is expected to add traffic equal to or greater than one percent of the rural highway segment's capacity;
2. The rural highway segment is adjacent to the project;
3. Based on engineering judgment, Lead Agency staff determines that the rural highway segment should be included in the analysis.

For calculating the amount of added traffic based on rural highway segment capacity, the capacities cited in *HCM 2000* shall be used. For two-lane highways, the capacity shall be 1,700 vph for each direction of travel. For four-lane highways, the capacity shall be 2,200 vphpl. For special conditions, refer to Chapter 20 of *HCM 2000* for guidance.

2.2.4 Determining Other Transportation Issues to Address

In addition to an Auto Level of Service (LOS) analysis covering the facilities identified in ***Section 2.2***, the TIA shall include an analysis of auto trip reductions; transit, bicycle and pedestrian conditions; project access and circulation; and other issues identified in ***Chapters 6, 7, 8*** and ***9*** of these Guidelines. In addition, the TIA may also include an analysis of other issues as determined by the Lead Agency. These analyses are not required for CMP purposes but may be included in a TIA to address local requirements or CEQA, and may include:

- Adequacy of automobile parking supply compared to demand or local standards;
- Queuing on local (non-CMP) facilities;
- Existing Plus Project analysis scenario (see ***Chapter 4, Recommended TIA Table of Contents***).

The Lead Agency may require that additional scenarios be analyzed in the TIA. For example, unfunded transportation facility improvements may be evaluated as part of an additional scenario. Phased projects may also require additional scenarios.

PART II – NOTIFICATION AND REVIEW

Chapter 3. TIA Notification, Preparation and Review Process

This chapter outlines the process for notifications regarding TIAs, the preparation of TIAs, and review of TIAs. The chapter begins with an overview of the process including a step-by-step summary and figure. This chapter also defines the roles of the Lead Agency and VTA by listing the key responsibilities of each in preparing or reviewing TIAs.

3.1 Overview of Process

The following is an outline of the key steps in the TIA Notification, Preparation and Review Process. These steps are shown in ***Figure 1***. Note that the term "Lead Agency" in this context refers to the agency responsible for preparing the TIA.

1. **Lead Agency Submits TIA Notification Form:** Lead Agencies are required to send notification that a TIA is being started to VTA, as well as to designated contacts for cities, towns, the County, and Caltrans as appropriate. The purpose of this notification is to inform interested agencies of the study and to allow them to comment on the scope of the analysis.

   A sample of the **TIA Notification Form** is provided in ***Appendix B***. A PDF version that may be electronically filled out will be posted on the VTA website. VTA is in the process of developing a web-based TIA Notification Form, which will be linked from the VTA website when available. The Lead Agency is encouraged to submit the draft work scope of the TIA along with the TIA Notification Form. Lead Agencies are encouraged to submit TIA Notification Forms and work scopes electronically rather than in hardcopy format wherever possible.

   Comments from interested agencies on the TIA scoping must be received by the Lead Agency ***within 15 calendar days*** of notification mailing.

2. **Lead Agency Submits TIA with Hearing Date:** Upon completion of the study and ***at least 20 calendar days before*** the project is considered for approval (e.g., City Council or Board of Supervisors hearing) or is "recommended for approval" (e.g., Planning Commission meeting), the Lead Agency is required to submit the TIA Report to VTA, as well as to designated contacts for cities, towns, the County, and Caltrans as appropriate.

   With the TIA submittal, the Lead Agency should indicate the expected hearing date for project approval or recommendation. Lead Agencies are encouraged to submit TIA Reports electronically (via an email with an attachment, or a link to the TIA location online) rather than in hardcopy format wherever possible. A draft version of the TIA may

also be submitted earlier in the process for preliminary feedback from VTA and other agencies.

VTA may grant exceptions to this submittal time frame. The Lead Agency must request the exemption to the submittal date ***at least 25 calendar days prior*** to the appropriate hearing dates.

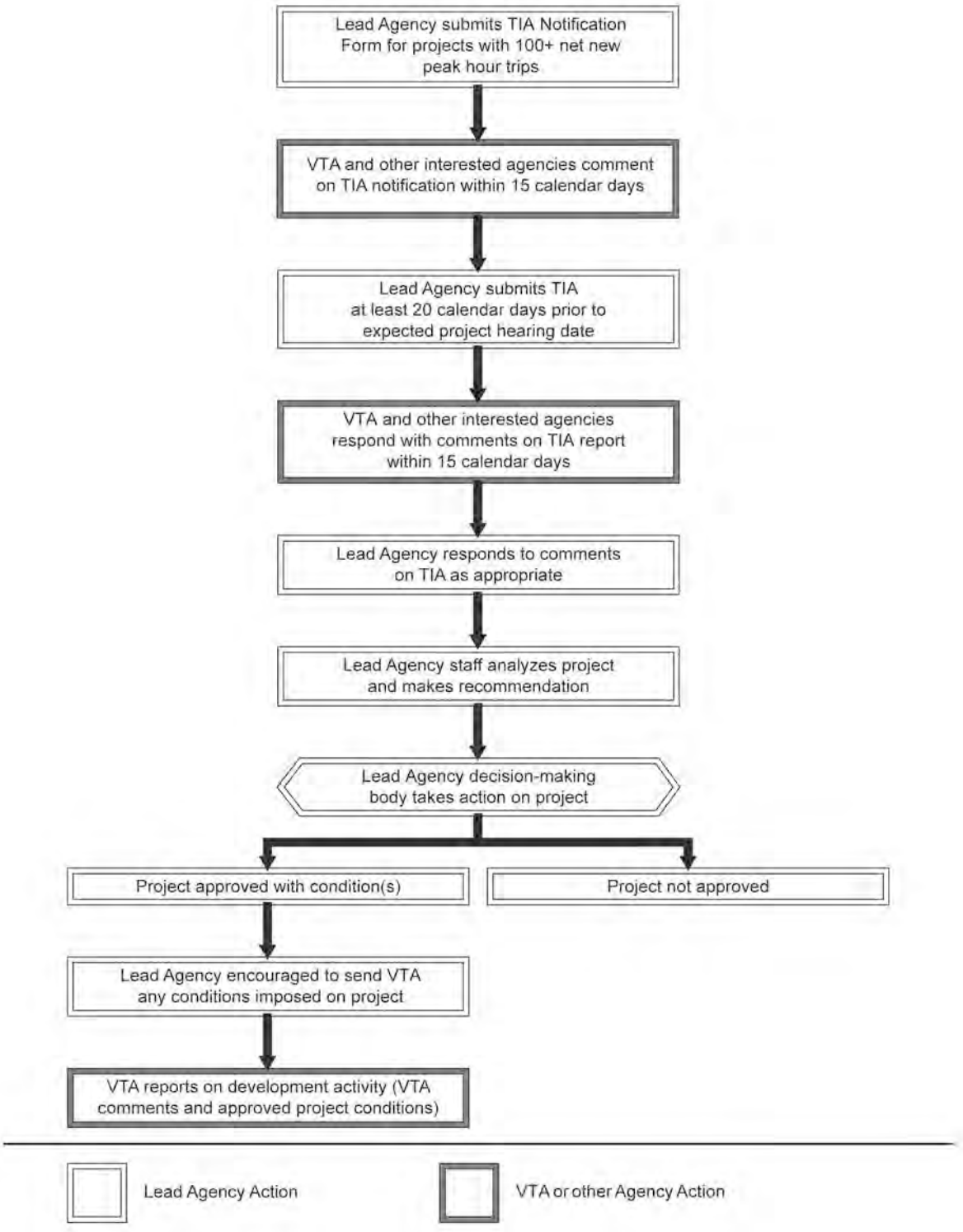
The deadline and process for TIA submittal are intended to apply to cases where the TIA is not submitted with an environmental document. When a TIA is submitted along with an environmental document following CEQA guidelines, the time frame provided by the CEQA process is considered to be sufficient.

3. **VTA and Other Agencies Respond**: VTA will review the TIA for consistency with CMP standards and with VTA's *CDT Manual*. VTA will forward a response to the Lead Agency staff prior to action by the Planning Commission and/or City Council with copies sent to the jurisdiction's members on the VTA Technical Advisory Committee (TAC), Policy Advisory Committee (PAC) and TAC Working Groups, as appropriate. Other interested agencies may offer suggestions for the Lead Agency at this point as well. Comments from interested agencies on the TIA Report must be received by the Lead Agency ***within 15 calendar days*** of the TIA mailing.

   The deadline and process for agency comments on TIAs are intended to apply to cases where the TIA is not submitted with an environmental document. When a TIA is submitted along with an environmental document following CEQA guidelines, the time frame provided by the CEQA process is considered to be sufficient.

4. **Lead Agency Addresses Comments**: Upon receiving comments on the draft TIA Report from VTA or other agencies, the Lead Agency should address these comments. If an EIR is being prepared for the project, the Lead Agency shall respond in writing to comments on the TIA and transportation analysis if they are received through the CEQA comment process, pursuant to the requirements of CEQA. If an EIR is not being prepared, the Lead Agency should contact the agency that submitted comments to discuss them. For comments that address the compliance of the TIA with CMP requirements, the Lead Agency shall submit a written response to VTA and other agencies as appropriate. The response may take the form of a revised TIA, supplemental memo, or email clarification, as appropriate. For other comments not related to CMP compliance, the Lead Agency is encouraged to respond to VTA and other agencies.

Figure 1: TIA Notification and Review Process



5. **Lead Agency Decision and Project Conditions**: The Lead Agency staff analyzes the project and makes recommendations to the appropriate decision-making body (Planning Commission, City Council and/or County Board of Supervisors). The decision-making body takes action on the project. If the decision-making body rejects the project, no further action by the Lead Agency is required. If the project is modified substantially so that a new TIA is required, the Lead Agency must complete the TIA process again, beginning with TIA notification. If the project is approved, the Lead Agency is encouraged to send text of the relevant adopted conditions relating to the CMP Transportation System and the promotion of alternative transportation modes to VTA.

6. **VTA Reports on Development Activity**: VTA will prepare regular reports summarizing relevant VTA comments on projects reviewed by VTA, and relevant conditions on projects approved by Member Agencies that improve CMP facilities, relate to alternative transportation modes, and/or meet other goals such as those related to VTA's CDT Program. The report is typically presented on a quarterly basis to the VTA Board, the Congestion Management Program and Planning (CMPP) Committee, and the Technical, Citizen, Bicycle and Pedestrian, and Policy Advisory Committees (TAC, CAC, BPAC and PAC), and TAC Working Groups. VTA will also report on Member Agency compliance with CMP requirements though the CMP Monitoring and Conformance Program.

3.2 Key Lead Agency Responsibilities

1. The agency that is responsible for certifying the project's CEQA environmental document shall be responsible for performing the TIA.

2. The Lead Agency is responsible for notifying all appropriate jurisdictions that a TIA is being prepared by submitting a **TIA Notification Form** to all appropriate jurisdictions.

3. The Lead Agency is responsible for providing direction on the TIA study scope including:

    a. Determining roadway facilities to be included in analysis (following the procedure set forth in ***Section 2.2*** in these Guidelines);
    b. Defining analysis scenarios (following the procedures outlined in ***Chapters 4*** and ***5*** of these Guidelines);
    c. Determining the proper analysis method to use in a study when more than one approach is possible.

4. The Lead Agency is responsible for preparing and submitting the TIA Report that meets all the requirements included in these Guidelines to VTA within the time frame outlined in ***Section 3.1*** of these Guidelines.

5. The Lead Agency is responsible for addressing comments on the draft TIA Report as described in ***Section 3.1.***The Lead Agency is encouraged to consult with VTA in preparing any Conditions of Approval that relate to improving CMP facilities and promoting alternative transportation modes.

6. After project approval, the Lead Agency is encouraged to send to VTA any adopted Conditions of Approval that relate to improving CMP facilities and promoting alternative transportation modes.

3.3 VTA Review for Conformance

VTA shall review TIA Reports for consistency with the *TIA Guidelines*. This review shall not constitute approval or disapproval of the project that is the subject of the report. VTA does not have the authority to approve or reject projects; that decision rests with the Lead Agency. However, VTA may provide comments to the Lead Agency on the TIA Report based on staff review. When appropriate, Lead Agency staff should discuss these comments with the preparer of the TIA Report to insure that future TIAs comply with CMP requirements. VTA will monitor the final project TIA Reports to ensure that they are consistent with CMP standards.

VTA will prepare regular reports of projects that were approved through the TIA process. These reports will summarize adopted conditions that improve CMP facilities and relate to alternative transportation modes, and will be presented to the VTA Board and its committees as described earlier in this chapter.

PART III – TIA CONTENTS AND METHODOLOGY

Chapter 4. Recommended TIA Table of Contents

This chapter presents a recommended outline and organization of a TIA. For more detailed guidelines, the chapter is noted where the guidelines are further discussed.

1. **Executive Summary**

The executive summary should summarize major findings from the TIA. At a minimum, topics covered should include:

- Project Description;
- Existing Conditions;
- Brief summary of project trip generation and auto trip reductions, including Auto Trip Reduction Statement – *See **Appendix C;***
- Project impacts/effects and proposed mitigation measures/improvements.

2. **Project Description, Study Area and Analysis Parameters**

This section should provide a description of the project, the transportation context surrounding it and the parameters of the transportation analysis. Topics covered should include:

- Location of Proposed Project;
- Proposed Land Use and Project Size;
- Site Plan, indicating buildings, vehicular access, and pedestrian and bicycle accommodations – *See **Section 9.4, Project Access and Circulation;***
- Study Intersections and Freeway Segments – *See **Chapters 2*** and ***5;***
- Analysis Periods and Methodologies – *See **Chapter 5;***
- Analysis Scenarios – *See **this chapter*** and ***Chapter 11, Future Year Scenarios (Cumulative Conditions).***

3. **Existing Conditions**

This study scenario shall evaluate existing conditions. Topics in this section should include:

- Roadway Network;
- Existing Transit System;
- Existing Bicycle and Pedestrian Facilities and TDM Programs;
- Existing Volumes and Lane Configurations;
- Existing Intersection Auto Level of Service;
- Existing Freeway Segment Auto Level of Service;
- Field Observations.

See ***Chapter 6*** for more information on what is required in the existing conditions section.

4. **Trip Generation and Auto Trip Reductions**

This section shall document the methods used in the TIA for estimating trip generation associated with a project, approaches for reducing automobile trips to and from the project and documenting these reductions in a TIA Report, and assumptions about how trips are distributed throughout the transportation network.

Topics covered in this section should include:

- Trip Generation;
- Auto Trip Reductions and Transportation Demand Management;
- Trip Distribution and Assignment;
- Pass-by Trips and Diverted Linked Trips.

See ***Chapter 8*** for more information on these topics.

5. ***Optional:*** **Existing Plus Project Conditions**

This study scenario typically evaluates the addition of the project, along with estimated project-generated trips, to the existing conditions. This section typically identifies project impacts on the surrounding transportation network, including an analysis of roadways, freeway segments, and queuing. For any impacts identified, mitigation measures are typically developed based on the results of this study scenario. If mitigation measures are proposed, then an analysis with the mitigations measures is typically conducted.

Note: *This scenario is not required for CMP purposes but may be included in a TIA to address local requirements or CEQA. However, Existing + Project freeway analysis is required for CMP purposes for all projects meeting freeway analysis requirement conditions. Please refer to* ***Section 2.2.2*** *regarding analysis conditions and* ***Section 5.2.8*** *regarding analysis methods.*

6. **Background Conditions (Existing + Approved Projects)**

This study scenario shall evaluate background conditions, based on the sum of existing trips and trips from approved developments in the area, along with any changes to roadways and intersections associated with approved development or other funded changes to the transportation network.

Topics covered in this section should include:

- Approved Development Projects;
- Secured Roadway/Intersection Improvements;
- Background Intersection Analysis and Auto LOS.

See ***Chapter 7*** for more information on how to conduct the Background Conditions analysis.

7. **Background Plus Project Conditions (Existing + Approved Projects + Project)**

This study scenario shall evaluate the addition of the project, along with estimated project-generated trips, to the background conditions. This section shall identify project impacts on the surrounding transportation network, including an analysis of roadways

and queuing. The Lead Agency is encouraged, but not required, to include an analysis of freeway segments under Background Plus Project Conditions. For any impacts identified, mitigation measures shall be developed based on the results of this study scenario. If mitigation measures are proposed, then an analysis with the mitigations measures shall be conducted.

See ***Chapter 9*** for more information on how to conduct the Project Conditions analysis.

8. **Multimodal Evaluation, Site Access and Circulation**

This section shall include an analysis of transit, bicycle and pedestrian modes under Plus Project Conditions (Existing, Background and/or Cumulative conditions with the addition of the project), if not included elsewhere in the TIA. In addition, this section shall include an analysis of project access and circulation.

See ***Chapter 9*** for more information on how to conduct this analysis.

9. **Future Year (Cumulative) Conditions**

This study scenario shall evaluate the addition of the project, along with estimated project-generated trips, to longer term conditions than those described under Background Plus Project conditions. In general, the Cumulative Conditions scenario is analyzed as the combination of Background Conditions (Existing Conditions + Approved Projects) + Expected Growth + Project. This section shall identify project impacts on the surrounding transportation network. For any impacts identified, mitigation measures shall be developed based on the results of this study scenario. The parameters of the Cumulative Conditions scenario should be clearly defined in the TIA. Cumulative scenarios can be near- or long-term, as follows:

- **Near-Term Cumulative Conditions**: This scenario is a near-term cumulative analysis scenario to be provided for each jurisdiction's planning and information purposes. The analysis shall include expected growth until the project is expected to be available for final occupancy;
- **Alternate Cumulative Conditions Analysis -** The Lead Agency may substitute an alternate Cumulative Conditions analysis for the near-term Cumulative Conditions analysis described above. For example, the long-term Cumulative Conditions analysis conducted as part of an environmental analysis may be provided in place of the near-term Cumulative Conditions analysis.

See ***Chapter 11*** for more information on Cumulative Scenario analysis**.**

Chapter 5. Analysis Periods and Methodologies

This section describes the typical analysis parameters to be included in the TIA. The Lead Agency shall be responsible for defining the analysis periods and documenting the analysis methodologies in the TIA.

5.1 Analysis Period

The TIA shall include, at a minimum, an analysis of transportation conditions in the peak hours for which the project generates 100 or more net new trips. In other words:

- If the project is expected to generate 100 or more net new weekday trips during both the AM and PM peak hours, then both weekday peak hours must be analyzed;
- If the project is expected to generate 100 or more net new weekday AM peak-hour trips but less than 100 new weekday PM peak hour trips, then only the AM peak hour must be analyzed;
- If the project is expected to generate 100 or more net new weekday PM peak hour trips but less than 100 new weekday AM peak hour trips, only the PM peak hour must be analyzed.

The TIA Report must document the project's trip generation for both the weekday AM and PM peak periods to justify the peak period(s) analyzed in the TIA.

The Lead Agency may require that additional periods be analyzed, based on engineering judgment. For example, additional analysis of midday or weekend peak periods may be required.

5.2 Analysis Methodologies

This section describes analysis method requirements for the various types of CMP roadway facilities: arterials, intersections, freeways, and rural highways. This section also describes analysis methodologies for non-vehicular facilities, i.e. bicycle, pedestrian and transit facilities. Much of this information is also described in the VTA *Traffic Level of Service Analysis Guidelines*. This section also includes discussion about the use of the VTA travel demand forecast model and other local models.

A more detailed description of analysis requirements and thresholds for determination of Auto Level of Service (LOS) impacts are provided in ***Chapter 9, Project Conditions and Impacts/Effects***.

5.2.1 Urban Arterials

The analysis of CMP urban arterials, including County Expressways, is accomplished by evaluating designated intersections along the arterials. The analysis of these intersections is to be conducted following the guidelines and the default values for CMP intersection analysis in the latest Board-adopted VTA *Traffic Level of Service Analysis Guidelines*. Thresholds for determination of an impact are described in ***Chapter 9***.

When conducting Auto LOS analysis on County Expressway and/or Caltrans intersections, the Lead Agency should consult with County and/or Caltrans staff to determine the appropriate actual signal timing information for the analysis. Lead Agencies are also encouraged to obtain appropriate actual signal timing information for local intersections with traffic-adaptive signal timing.

In certain situations, more detailed analysis may be needed than what can be provided using isolated intersection analysis software. In these cases, such as on corridors with coordinated or adaptive signal control, the Lead Agency may choose to conduct additional analysis using other software programs, such as microsimulation software for operational analysis, when appropriate.

5.2.2 Rural Highways

The analysis of rural highways shall be based on the methodology described in latest Board-adopted VTA *Traffic Level of Service Analysis Guidelines.* The analysis is primarily segment-based, but in some cases, it may also be appropriate to evaluate adjacent rural highway intersections, as discussed in the VTA *Traffic Level of Service Analysis Guidelines*.

5.2.3 High Occupancy Vehicle Lanes

In cases where roadways with High Occupancy Vehicle (HOV) lanes are analyzed and project trips are assigned to the HOV facility, HOV lane usage and impacts must be evaluated. The following applies to the evaluation of an HOV lane:

- Assignment of trips to an HOV lane shall be described and justified in the TIA Report;
- Operational analysis of an HOV lane (including analysis of impacts) shall be documented in the TIA Report;
- Auto Level of Service (LOS) analysis for an HOV lane should be performed according to VTA *Traffic Level of Service Analysis Guidelines*;
- Caltrans recommends maintaining LOS C operations on HOV facilities, which occurs at approximately 1,650 vphpl;[2]
- For County Expressway HOV lane capacity, the Lead Agency should consult with County staff to determine the saturation flow rate as it varies depending on the Expressway segment.

Refer to the latest CMP *Monitoring and Conformance Report* for existing performance data for freeway HOV lane segments. Consult with County staff for the latest Expressway HOV lane volumes, including volumes at Expressway intersections.

[2] "The occupancy requirements for HOV facilities should be based on the following considerations: … C. Maintaining a free flow condition, preferably LOS-C… For buffered or contiguous HOV facilities, Caltrans considers LOS-C occurs at approximately 1,650 vehicles per hour, less if there is significant bus volume or if there are physical constraints." Caltrans, *High-Occupancy Vehicle Guidelines*, 2003 Edition, Section 2.5.

5.2.4 Express Lanes

In cases where roadways with Express Lanes are analyzed and project trips are assigned to the Express Lane facility, Express Lane usage and impacts must be evaluated. The following applies to the evaluation of an Express Lane:

- Assignment of trips: Lead Agency shall consult with VTA, and assignment shall be described and justified in the TIA Report;
- Operational analysis of an Express Lane (including analysis of impacts) shall be documented in the TIA Report;
- Auto LOS analysis for an Express Lane should use the following saturation flow rates: 1,650 vehicles per hour per lane (vphpl).[3]

The CMP *Monitoring and Conformance Report* includes performance data for freeway Express Lane segments.

5.2.5 Bicycle

A Quality of Service (QOS)-based methodology, such the one in the *Highway Capacity Manual 2010* (Chapters 16 – 18) or a similar methodology,[4] is encouraged for analysis of bicycle conditions. Bicycle QOS methodologies typically measure features of the physical environment that affect the comfort and safety of bicyclists from the user's perspective, such as the presence of dedicated bicycle facilities (lanes, paths, etc.), intersection delay and exposure to automobile traffic. The TIA should include a description of the methodology being used as part of the analysis. See ***Section 9.3*** for more information on bicycle analysis requirements.

5.2.6 Pedestrian

A Quality of Service (QOS)-based methodology, such the one in the *Highway Capacity Manual 2010* (Chapters 16 – 18) or a similar methodology,[5] is encouraged for analysis of pedestrian conditions. Pedestrian QOS methodologies typically measure features of the physical environment that affect comfort and safety for pedestrians from the user's perspective, such as lateral separation from traffic, crossing distance and delay, and presence of landscaped buffer or trees. The TIA should include a description of the methodology being used as part of the analysis. See ***Section 9.3*** for more information on pedestrian analysis requirements.

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[3] For Express Lanes, which function to provide a time savings over non-tolled lanes, the relevant performance measure is the maintenance of LOS C operations. Per Caltrans Guidelines (see footnote 2), this occurs at approximately 1,650 vphpl.

[4] Alternative QOS methodologies, including City of San Francisco's Bicycle Environmental Quality Index, are described in ***Appendix G.***

[5] Alternative QOS methodologies, including City of San Francisco's Pedestrian Environmental Quality Index, are described in ***Appendix G.***

5.2.7 Transit

The transit analysis shall consider the effects of the project on transit delay and transit access and facilities. See ***Section 9.2*** for more information on transit analysis requirements.

5.2.8 Freeway Segments

The analysis of freeway segments is to be conducted following the guidelines in the latest Board-adopted VTA *Traffic Level of Service Analysis Guidelines*. One criterion for assessing the impact of a development project on freeways is Auto Level of Service (LOS). As in the CMP Monitoring and Conformance Program, density is the parameter for determining Auto LOS for freeway segments in TIAs in Santa Clara County. The relationship between density, speed and flow rate (or traffic volume) is described as follows:

$$d = \frac{V}{N \times S} \qquad \text{(Eqn. 1)}$$

where: d = density (vehicles per mile per lane, vpmpl)
V = peak hour volume (vehicles per hour, vph)
N = number of travel lanes (lanes)
S = average travel speed (miles per hour, mph)

A table of Freeway Auto LOS criteria based on density ranges is provided in the *Traffic Level of Service Analysis Guidelines.* For Existing Conditions, the number of lanes as well as performance data for freeway segments in Santa Clara County are included in the most recent CMP *Monitoring and Conformance Report* produced by VTA.

For the analysis of project conditions, the volume (V) used in the density calculation (Equation 1) is:

$$V = V_o + V_p \qquad \text{(Eqn. 2)}$$

where: V_o = existing peak hour volume (vph)
V_p = peak hour project trips distributed on the freeway segment (vph)

The Lead Agency is encouraged, but not required, to include an analysis of freeway segments under Background Plus Project Conditions and Cumulative Conditions. The TIA should include a description of the methodology being used to forecast future traffic volumes on freeways, which could include use of a transportation model.

The TIA shall include freeway analysis table(s) identifying whether the project would have an impact on the freeway system. Tables for the freeway analysis determination and impact analysis should include detailed data such as project trips, density and speed. Sample tables are shown in ***Appendix A*** (*Table A-1: Sample of Freeway Analysis Requirement Determination* and *Table A-2: Sample of Freeway Analysis Summary*).

5.3 Use of Transportation Models

Travel demand forecasting models may be used for long-term analysis of development projects, planning efforts or transportation facilities. The use of a forecasting model for a buildout scenario should only be used for a period of at least five years from the preparation of a TIA Notification Form. If the project were to be built entirely within five years, the "near-term" development approach discussed in ***Section 11.1.1 , Opening Year/Short-Term Analysis***, shall be used.

The long-term analysis may include the use of either the countywide transportation model or local transportation models as described below:

1. **Countywide Transportation Model:** The countywide transportation model developed and maintained by VTA may be used for transportation impact analyses. Use of this model may be appropriate for the long-term analyses of large projects and general planning efforts. The cost for this modeling may be borne by the Lead Agency on the work effort.

2. **Local Transportation Models**: In some cases, local sub-area transportation models are appropriate. Under the CMA statutes, VTA must approve any local sub-area transportation models used for TIAs. VTA has adopted guidelines for developing local land use transportation impact models that are designed to ensure that local models are consistent with the countywide model. These guidelines are documented in the *Local Transportation Model Consistency Guidelines* in the *Technical Standards and Procedures.*

Chapter 6. Existing Conditions

The TIA Report shall include a description of the existing transportation system in the area affected by the project. The project area transportation system shall include all CMP system facilities affected by the project (see ***Section 2.2, Which Roadway Facilities Should be Included in a TIA?***). The following section details the items that should be included in the description of roadways, transit, bicycle and pedestrian facilities, and other transportation elements.

6.1 Counts and Data Collection

Field data, including counts and field observations, will be needed in order to accurately assess existing conditions. The following are key points regarding data collection for TIA completion:

1. **Data for Existing Study Scenario Analysis:** Freeway and intersection data collected as part of VTA's CMP Monitoring and Conformance Program are available for use in all TIAs. When possible, these data from VTA shall be used in the TIA.

2. **Additional Data**: In some cases, additional data will need to be collected for a different time period or to more accurately reflect existing travel that differs from the most recent CMP Monitoring data. The study should not use traffic volume data more than two years old. The use of growth factors should be considered if the traffic volume data is older than one year. Other data collected as required by the Lead Agency shall be provided to VTA (as part of the TIA Report) so that VTA's database may be updated. Submittal of data electronically (i.e., in files that can be used with traffic analysis software) is encouraged, where feasible.

3. **Bicycle and Pedestrian Data:** The collection of pedestrian and bicycle counts is encouraged whenever new traffic volume counts are conducted.

4. **Field Data Collection Methodology:** Field data should be collected using procedures outlined in the most recent version of the Institute of Transportation Engineers (ITE) *Manual of Transportation Engineering Studies*, or in the most recent version of the Transportation Research Board's *Highway Capacity Manual*.

5. **Field Observations:** Field observations of traffic conditions, access points, intersection geometries, traffic signal operations, pedestrian and bicycle accommodations, transit facilities and access, and adjacent land uses should be conducted in the study area for the proposed project. The Lead Agency may also request additional information from the field. Field observations should be noted and may be used to refine or revise Auto Level of Service (LOS) calculations when there are discrepancies in the observed and calculated Auto LOS.

6.2 Description of Existing Roadways

The following information shall be provided for the project area's CMP Roadway System:

a. Local/arterial roadway, County Expressway, and freeway network description and map; all County Expressway and freeway descriptions must include a description of High Occupancy Vehicle (HOV) facilities (including HOV lanes and ramp metering bypasses) and Express Lane facilities;
b. Intersection geometry, traffic controls, and traffic signal timing parameters;
c. Recent turning movement counts (*see* ***Section 6.1, Counts and Data Collection***);
d. Existing Auto Level of Service (LOS) evaluated using VTA-approved Auto LOS methodology and standard values (see ***Chapter 5, Analysis Periods and Methodologies***). In most cases, the existing Auto LOS should be those presented in the latest CMP *Monitoring and Conformance Report.* However, counts may need to be taken to reflect a change in travel patterns since the last monitoring cycle;
e. Existing locations of congested traffic conditions (as identified with assistance of Lead Agency staff and field observations). This information includes description of queues extending into the upstream intersection(s), queue "spill-back" in turn lanes, effects of ramp metering, and duration of congestion;
f. Funded and planned roadway improvements.

It may be necessary to provide field measurements of delay and queuing to accurately reflect existing conditions. Field measurements could account for situations where the congestion is more than that represented by the calculated Auto LOS. Additional information gathered from field observations may also be included in the TIA.

6.3 Description of Existing Transit System

The following information shall be provided for the project area's transit system (the project area transit system shall be defined as transit routes within 2,000 feet of the project boundaries):

a. Transit route description and map;
b. Transit station/stop locations;
c. Site access to major regional transit providers (BART, Caltrain, etc.);
d. Transit hours of operation and headway information;
e. Public or private shuttle services provided in the project area;
f. Location of park-and-ride lots in project area;
g. Planned transit facilities within the project area; determination of planned transit facilities or services should occur in consultation with VTA and other operators, as appropriate.

6.4 Description of Existing Bicycle and Pedestrian Facilities and TDM Programs

The following information shall be provided for the bicycle facilities within the project area:

a. Existing bicycle paths, lanes, and routes as well as bicycle/pedestrian over and under crossings;

b. Future planned or programmed bicycle improvements including, but not limited to, those facilities, routes, and programs in the Lead Agency's adopted Bicycle Plan, Pedestrian Plan, Trails Master Plan, and/or bicycle/circulation element of their General Plan, and in other agencies' plans (e.g., adjacent cities' Bicycle Plans or Pedestrian Plans, cross-county bicycle corridors in the VTA *Santa Clara Countywide Bicycle Plan*, Bay Trail Plan);
c. A basic characterization of existing bicycling conditions in terms of safety, ease of access to the project site, and Quality of Service indicators, emphasizing gaps and deficiencies in the bicycle network near the site (e.g., missing bicycle lanes, narrow outside lanes);
d. Map showing existing bicycle facilities within 2,500 feet of the project boundaries. This map should indicate bicycle paths, lanes, and routes as well as bicycle/pedestrian over and under crossings;
e. The description and map of existing bicycle conditions should focus on the project street frontages and paths to major attractors such as transit facilities, schools, shops and services, and major residential developments.

The following information shall be provided for the project area's pedestrian facilities:

a. Existing pedestrian facilities in project area including sidewalks, crosswalks and other crossing control devices (e.g. beacons, refuge islands, etc.), and other non-motorized connections and paths in project area;
b. Future planned or programmed pedestrian improvements including, but not limited to, those facilities, improvements, and programs in Member Agencies' pedestrian elements and plans;
c. A basic characterization of existing walking conditions in terms of safety and Quality of Service indicators such as tree barriers, landscape buffers, and sidewalk width,-emphasizing gaps and deficiencies in the pedestrian network near the site (e.g., missing crosswalks, missing pedestrian signal heads/phases, inadequate Americans with Disabilities Act (ADA) accommodations);
d. Map showing existing pedestrian facilities within 1,000 feet of the project boundaries. This map should indicate sidewalks (showing each side of a street), sidewalk gaps, crosswalks, other crossing control devices (e.g., beacons, refuge islands, etc.), and bicycle/pedestrian over and under crossings;
e. The description and map of existing pedestrian conditions should focus on the project street frontages and paths to major attractors such as transit facilities, schools, shops and services, and major residential developments.

When applicable, the following information shall be provided on Transportation Demand Management (TDM) or unique transportation or land use plans affecting the project area:

a. TDM ordinances in effect for the project site (reference to ordinance and key aspects affecting project is sufficient);
b. TDM programs at an existing facility, in the case of a project that is an expansion or a relocation from a nearby facility.
c. Other transportation plans or land use plans unique to the project area;

Chapter 7. Background Conditions

This study scenario shall evaluate Background Conditions, based on the sum of existing trips and trips from approved developments in the area, along with any changes to roadways and intersections associated with approved development or other funded changes to the transportation network.

The following sections present additional information on estimated trips from approved development projects, appropriate transportation facility improvements to include in the analysis, and other considerations.

7.1 Approved Development Projects

Approved projects include not yet completed or occupied projects that have undergone an approval process (i.e., been granted a land use entitlement). Approved projects may be projects within the Lead Agency's jurisdiction or a neighboring jurisdiction. Local jurisdictions are encouraged to maintain an inventory of "approved trips." This inventory would include anticipated intersection turning movement volumes from approved projects. This information is useful in ensuring consistency among TIAs in the analysis of Background and Cumulative Conditions.

7.2 Vacant or Underutilized Buildings

If the proposed project involves a vacant or underutilized site with development rights, the number of trips originally associated with that development may be included in the Background Conditions. The background trips associated with the vacant or underutilized development should be estimated from driveway counts or trip generation rates, size, and land use type of the existing site. The "project trips" would be the additional trips generated by the redevelopment and/or re-occupancy of the site, i.e., the total number of trips generated by the proposed project minus the estimated background trips of the vacant or underutilized development. If the proposed project involves a vacant or underutilized site without development rights, all trips generated by the proposed project would be "project trips." The Lead Agency always has the discretion to consider trips associated with prior development rights to be project trips, rather than background trips.

7.3 Addition to Existing Development Project

If the proposed project involves the addition of a new use or expansion of an existing use at the site of an existing development, the number of trips originally associated with that site would be included in the Background Conditions. The background trips associated with the existing development should be estimated from driveway counts or trip generation rates, size, and land use type of the existing site. The "project trips" would be the additional trips generated by the addition or expansion project.

7.4 Transportation Facility Improvements

The transportation network for Background Conditions shall include all funded transportation facility improvements expected to be completed within one year of the proposed development project's completion. With VTA approval, a Lead Agency may request inclusion of other funded improvements or other developer-conditioned improvements.

7.5 Background Auto Level of Service Analysis

Transportation system operations for Background Conditions should be analyzed in a manner consistent with the analysis presented under Existing Conditions and following the methodology in ***Chapter 5, Analysis Periods and Methodologies***.

Chapter 8. Trip Generation and Auto Trip Reductions

This chapter describes methods for estimating trip generation associated with a project; approaches for reducing automobile trips to and from the project and for documenting these reductions in a TIA Report; and assumptions about how trips are distributed throughout the transportation network.

8.1 Trip Generation

The TIA should clearly identify the source of each trip generation rate used in the transportation analysis.

8.1.1 Sources and Methodologies

The Lead Agency may use trip generation rates from the most recent version of the Institute of Transportation Engineers' (ITE's) *Trip Generation Manual*, rates developed from local data, or rates developed using alternative trip generation methodologies.

For the most common land uses, numerous studies have been used in developing the ITE trip generation rates. In some cases, however, the published ITE trip generation rates are based on very limited data. There are at least four cases in which the Lead Agency should consider using alternative sources for trip generation rates:

- When ***ITE data is insufficient*** (e.g. small sample size, not statistically valid);
- When a project's ***specific land use*** is not covered by the ITE manual or is known to show trip generation characteristics that differ from the categories covered in the ITE manual;
- When the ***land use context***, such as high-density infill or development adjacent to transit, is not addressed by the ITE manual;
- When the project includes a mix of land uses (***mixed-use development*** type).

Lead Agencies may also develop trip generation rates based on local data specifically for use in the transportation impact analysis. If custom trip generation rates are developed, techniques in the ITE's *Manual of Transportation Engineering Studies* should be used. The local data used to develop a custom rate should either be included in the TIA or made readily available by the Lead Agency.

Trip generation rates from other methodologies may be used instead of ITE rates, where defensible and appropriate. Alternative methodologies include:

- SANDAG Traffic Generation Manual & Trip Generation for Smart Growth;
- City of San José Trip Generation Rates;
- MXD Model/SANDAG Model – US EPA;
- NCHRP 8-51 – Enhancing Internal Trip Capture Rate for Mixed-Use Development;
- Station Area Resident Survey – MTC;
- California Smart Growth Trip Generation Tool – Caltrans/UC Davis;
- Travel demand forecasting models;
- California Emissions Estimator Model (CalEEMod)[6]

Additional information on the research and professional practice basis of alternative trip generation methodologies can be found in ***Appendix D***.

Professional judgment should always be used when selecting a trip generation data source or methodology. When using trip rates from any of the alternate trip generation methodologies listed, the Lead Agency shall include in the TIA Report a full description of the trip generation methodology used and a summary of all inputs and assumptions. Professional judgment should be exercised to avoid double counting when using an alternate trip generation methodology. Some methodologies already account for attributes contained in the Standard Trip Reductions, which should not be taken on top of reductions provided by an alternate methodology.

In cases where the chosen trip generation methodology is based on a limited sample size, Lead Agencies are encouraged to conduct additional research or use local data to validate the trip rates before applying the suggested trip reductions from the alternate methodology.

8.1.2 Documentation of Trip Rates

A summary table showing trip generation for each type of land use in the project for each period of analysis (daily, AM peak, PM peak, etc.) shall be provided. The summary table shall include a quantification (square feet, number of units, etc.) upon which the trip generation calculation is based for each land use type, the trip generation rates used, and resulting generated trips.

The choice of trip generation rates shall be justified in the TIA. This includes any trip generation rate used for High Occupancy Vehicles.

Additionally, any unique project attributes affecting the trip generation calculations shall be documented. For example, assumptions regarding peak spreading and pass-by trips shall be documented.

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[6] CalEEMod is recommended for Vehicle Miles Traveled (VMT) analysis by the California Air Pollution Control Officers Association (CAPCOA) and the Bay Area Air Quality Management District (BAAQMD). CalEEMod may be useful as a supplemental resource for verification and justification of trip generation and trip reductions. However, since CalEEMod does not produce detailed trip generation estimates, it is not recommended that Lead Agencies rely on CalEEMod as their primary source for trip generation when preparing a TIA. See ***Appendix D*** for more detail.

8.1.3 Mode Split

For large projects that use a transportation model (either the countywide model or a local model), the Lead Agency is encouraged to prepare a summary table for either the daily or peak hour that indicates the number of vehicle trips, transit trips, bicycle trips and pedestrian trips generated for each type of land use. The Lead Agency may determine the project mode split based on factors from the VTA countywide model, in consultation with VTA. Based on engineering judgment, some projects may need further analysis of bicycle and pedestrian trips generated by the project. See ***Chapter 12, Special Project Types***, for more information.

8.2 Automobile Trip Reductions and Transportation Demand Management

An important goal of VTA's CMP is to encourage development that reduces system wide traffic congestion and improves air quality in the region. Several strategies can be used to encourage this type of development and to accomplish these goals, including:

- Mixed-use development (which increases internal trips);
- A strong Transportation Demand Management (TDM) program (which provides incentives and services to encourage alternatives to the automobile);
- Project location and design features that encourage walking, bicycling and transit usage;
- Parking demand management programs, which discourage drive-alone trips; and
- Development near frequent transit services.

These strategies are most effective when combined into a comprehensive program that is integrated into the project's design and operation.

Implementation of one or more of these strategies will encourage reductions in automobile trips generated by new development projects compared to standard automobile-trip rates. Projects that incorporate these concepts into their design may be awarded trip reduction credits, which may be applied to the total number of trips generated by the project. Trip reduction credits are subject to Lead Agency approval and discretion.

This section outlines three approaches for developing automobile trip reductions for a TIA:

- ***Standard Trip Reductions*** are established percentage reductions based on research or local policy that are provided within the *TIA Guidelines*. They can be taken for projects which include a mix of land uses, are located near transit, and/or have certain programs for TDM;
- ***Target-Based Reductions*** may be taken when the project applicant has entered into an enforceable agreement with the Lead Agency that limits the number of automobile trips traveling to and from the project site. The trip reduction program must include a commitment to monitor trip generation and determine whether targets are met, an enforcement structure, and a commitment to summary-level data sharing;
- ***Peer/Study-Based Trip Reductions*** may be taken when studies of similar projects, or of other sites occupied by the project applicant, have demonstrated comparable trip reductions through survey results or other data. The trip reduction program must include a commitment to monitor trip generation, and a commitment to summary-level data sharing.

All auto trip reductions must be clearly explained, documented, and justified in the project's TIA Report. Lead Agencies must state which of the above approaches is being used to develop auto trip reductions, if any reductions are claimed. Trip reductions shall be summarized in an Auto Trip Reduction Statement in the Executive Summary of the TIA Report, using the form provided in ***Appendix C.***

8.2.1 Standard Trip Reductions

VTA has developed the following guidelines for estimating auto trip reductions due to mixed-use development (internal trips), certain TDM programs, and transit station proximity. These guidelines should be used to determine the standard reductions in project vehicle trip generation from the estimates produced using the trip generation sources and methodologies referred to in ***Section 8.1.1***. It must be emphasized that the vehicle trip reduction values or percentages should be applied carefully using professional judgment. In some cases, following the guidelines for standard trip reductions outlined in this section would overestimate trip generation from the project. ***Sections 8.2.2, Target-Based Trip Reductions***, and ***8.2.3, Peer/Study-Based Trip Reductions***, provide guidance for cases when trip reduction percentages are likely to be higher than those detailed in this section. These subsequent sections also provide the procedures for documenting and justifying larger trip reductions for "special circumstances" which are referred to in this section.

The effectiveness of mixed-use development, TDM programs, and location near transit at reducing project vehicle trip generation should be monitored by Lead Agencies as part of the CEQA mitigation measure monitoring process and/or the agency's TDM effectiveness monitoring program. Lead Agencies are encouraged to provide this type of monitoring data to VTA, when available, to assist in revising the vehicle trip reduction guidelines in the future. VTA will gather data on trip reduction experiences from Member Agencies through the CMP Monitoring and Conformance Program, and may share this data online to assist agencies in preparing TIAs.

Table 1: Standard Auto Trip Reduction Rates
summarizes the maximum trip reduction rates that can be applied under the Standard Trip Reduction Approach. It should be noted that standard vehicle-trip generation rates already include some measure of transit use, biking, walking and TDM programs, so trip reductions summarized in ***Table 1*** may be smaller than measured transit use and TDM program participation in a given project. The trip reduction values in this chapter may be revised as new information is gathered.

8.2.1.1 Mixed-Use Developments

The Standard Reduction approach allows the largest trip reductions (i.e., 10 to 15%) for mixed-use developments that combine retail uses with a housing or hotel component. Based on a review of mixed-use developments, other mixed-use projects will be allowed smaller trip reductions due to the reduced amount of internal trip-making found in these projects. ***Table 1: Standard Auto Trip Reduction Rates*** summarizes the maximum trip reductions for mixed-use developments under the Standard Reductions approach.

Table 1: Standard Auto Trip Reduction Rates

Trip Reduction Strategy	Standard Trip Reduction
Mixed-Use Development Project	
with housing and retail components	*15.0% off the smaller trip generator*[7]
with hotel and retail components	*10.0% off the smaller trip generator*[8]
with housing and employment	*3% off the smaller trip generator*[9]
with employment and employee-serving retail	*3% off employment component*[10]
Effective TDM Program[11]	
Financial Incentives	*up to 5.0%*[12]
Shuttle Program[13]	
- Project-funded dedicated shuttle	*3.0%*
- Partially-funded multi-site shuttle	*2.0%*
Location Within 2,000-Foot Walk of Transit Facility[14]	
Housing near LRT, BRT or Caltrain station	*9.0%**
Housing near a Major Bus Stop[15]	*2.0%**
Housing Near a BART station	*Case-by-Case***
Employment near LRT, BRT or Caltrain Station	*6.0%**
Employment near a Major Bus Stop[16]	*2.0%**
Employment Near a BART station	*Case-by-Case***

** Note: The LRT/BRT/Caltrain Station, BART Station, and Major Bus Stop reductions cannot be combined.*

*** Note: See* ***Section 8.2.1.3*** Proximity to Transit (Rail or Major Bus Line)*, below, for a description of the case-by-case method for proximity to BART stations*

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[7] The proposed trip reductions calculated for all land uses within the development area shall be based on the land use that produces the least amount of new trips. In other words, the same trip reduction rate for the land use that produces the least number of new trips should be used to determine the trip reduction for all developments.

[8] Same as footnote 7.

[9] Same as footnote 7.

[10] All trips made to retail services (employee-serving retail) within the proposed development/complex may be considered internal trips. However, to qualify for this reduction, the employee-serving retail must be integrated into the employment complex and must not have a dedicated parking area.

[11] In order for a project applicant to claim a TDM reduction, a commitment to make the TDM program available to all current and future occupants of the development must be included in a legally enforceable document. See ***Section 8.2.1.2, Transportation Demand Management (TDM) Program*** for more details.

[12] Financial incentives must be offered on an ongoing basis and must be roughly equivalent to or higher than the monthly maximum pre-tax commuter benefit allowed under federal law at the time of TIA preparation in order for the project to receive full trip reduction. See ***Section 8.2.1.2*** for more details.

[13] If the shuttle trip reduction is being combined with the "Employment near LRT, BRT or Caltrain Station" reduction, the maximum shuttle trip reduction that can be taken is 1.5%.

[14] See ***Section 8.2.1.3, Proximity to Transit (Rail or Major Bus Line)***, below, for further detail.

[15] A major bus stop is defined as a stop where six or more buses per hour from the same or different routes stop during the peak period in Core, Corridor or Station Areas.

[16] Same as footnote 15.

The following are further descriptions of the trip reduction categories listed in ***Table 1***:

1. **Housing/Retail Mixed-Use Projects:** Mixed-use development projects that include a substantial housing component and a retail component can reduce vehicle trips by increasing internal trips. For example, project residents patronizing the retail uses would reduce the number of external retail and residential trips. Hence, a reduction in vehicle trips can be taken off the smaller trip generator of the project in an amount not to exceed fifteen percent (15%) unless special circumstances are justified in the project's TIA.[17] The trips generated by the larger trip generator should be reduced by no more than the same number of trips reduced for the smaller trip generator.

2. **Hotel/Retail Mixed-Use Projects:** Mixed-use projects combining hotel and retail components will also increase internal trips. Hotel guests patronizing the project's retail uses would reduce the number of external retail and hotel trips. A reduction on the trips generated by the smaller trip generator can be taken in an amount not to exceed ten percent (10%) unless special circumstances are justified in the project's TIA.[18] The trips generated by the larger trip generator should be reduced by no more than the same number of trips reduced for the smaller trip generator.

3. **Housing/Employment Mixed-Use Projects:** Mixed-use projects combining housing and employment components may have trips made between the two uses if some housing residents are also employed on-site. No more than a three percent (3%) reduction off the trips generated by the smaller of the two trip generators shall be taken unless special circumstances are justified in the project's TIA.[19] The trips generated by the larger trip generator should be reduced by no more than the same number of trips reduced for the smaller trip generator.

4. **Retail/Employment Mixed-Use Projects:** Mixed-use projects combining employment and employee-serving retail components, such as dry cleaning, gift store, and service-oriented uses offer opportunities for employees to run errands during the day that they may have otherwise done during a peak period. In order to qualify for a trip reduction, the employee-serving retail must be integrated into the employment complex, with no designated parking area for the retail. The TIA should document that the project is eligible for a reduction. No more than a three percent (3%) reduction off the trips generated by the employment site shall

[17] This value is based on data cited in "Transit Oriented Development, Using Public Transit to Create More Accessible and Livable Neighborhoods" from the Victoria Transport Policy Institute, April 4, 2006; this value is comparable to Metropolitan Transportation Commission's *Characteristics of Rail and Ferry Station Area Residents in the San Francisco Bay Area: Evidence from the 2000 Bay Area Travel Survey (Volume I)*, September 2006.

[18] This value is based on VTA's review of mixed use literature available in 1998. Values for mixed-use trip reductions varied from 7% to 13%. See Institute of Transportation Engineers, *Trip Generation: An Informational Report, 5th Edition*, 1991, p, I-48 and California Air Resources Board, *Transportation-Related Land Use Strategies to Minimize Motor Vehicle Emissions: An Indirect Source Research Study*, June 1995, Appendix B.

[19] This value is based on Member Agency policies to encourage mixed-use development.

be taken unless special circumstances are justified in the project's TIA.[20] All of the employee-serving retail trips may be considered to be internal to the project.

8.2.1.2 Transportation Demand Management (TDM) Program

A reduction in project vehicle trip generation can be made for provision of a Transportation Demand Management (TDM) program. In the VTA *TIA Guidelines*, reductions for certain TDM programs may be taken through the Standard Trip Reduction approach below. It should be understood that most trip generation rates include a certain ambient level of non-single occupant vehicle trips. Therefore, the actual effectiveness of the TDM program is assumed to be greater than the values listed below, but the maximum trip reduction that may be taken from trip generation rates must comply with the guidelines below, for TIAs that take the Standard Trip Reductions approach.

In order for a project applicant to claim a TDM reduction in a TIA, a commitment to make the TDM program available to all current and future occupants of the development must be included in a legally enforceable document. Examples of such documents, for trip reduction documentation purposes, include Conditions of Approval, Development Agreements, CEQA Mitigation Monitoring & Reporting Programs (MMRPs), and/or Covenants, Conditions, & Restrictions (CC&Rs). The commitment to participate in a TDM program must be documented in the TIA.

VTA offers Standard Trip Reduction values for two types of TDM programs:

1. **Financial Incentives:** TDM programs that are based on financial incentives have the greatest effect on reducing trip generation. Trip reductions can be taken for projects which include the following types of financial incentives: transportation allowance for alternative modes to driving alone; parking cash-out; pre-tax commuter benefits for biking, carpooling, vanpooling, and using transit; and subsidies such as free transit passes or transit fare incentives provided by employers and/or residential complexes. In addition, charging for parking is a financial disincentive for solo driving and is considered a TDM measure. The maximum trip reduction that can be taken for such TDM programs is five percent-(5%) unless special circumstances are justified in the project's TIA.[21]

   The actual trip reduction that can be used in the TIA will depend on the level of financial subsidy provided to residents and/or employees and the number of residents and/or employees eligible for the subsidy. The standard 5% reduction can be taken if the financial subsidy is offered to all residents and/or employees of the development on an ongoing basis and is roughly equivalent to or higher than the monthly maximum pre-tax commuter benefit allowed under federal law at the time of TIA preparation.

[20] This value is based on Member Agency policies to encourage mixed-use development.

[21] This figure is based on two sources: US Department of Transportation, "The Effects of Land Use and Travel Demand Management Strategies on Commuting Behavior," November, 1994, which indicated a reduction in Drive Alone mode of approximately 5% for sites providing financial incentives; and Donald Shoup, "Parking Cash Out," Chicago: Planning Advisory Service, 2005, indicating reductions in vehicle trips of at least 5% at employers offering parking cash-out.

The level of financial incentives to be provided must be documented in the TIA Report.

2. **Shuttle Programs:** Projects which participate in shuttle programs linking the site to major transit facilities or other locations with high employee densities will be allowed a three percent (3%) trip reduction unless special circumstances are justified in the project's TIA.[22] The full 3% trip reduction may be taken only when the project is committed to fully funding a dedicated shuttle to light rail, Caltrain, or BART facilities or other locations with high employee densities. A 2% reduction may be taken if the project is committed to partially funding a shuttle that serves other sites in addition to the project site. If the shuttle trip reduction is being combined with the 'Employment near LRT, BRT or Caltrain Station' reduction, the maximum shuttle trip reduction that can be taken is one and one-half percent (1.5%).

8.2.1.3 Proximity to Transit (Rail or Major Bus Line)

Housing and employment projects that are located near transit have different mode splits resulting in generally lower vehicle-trip generation characteristics. The extent is different for different types of transit facilities. To qualify for the Proximity to Transit trip reduction rates, developments must be located near existing or future Light Rail Transit (LRT) stations, Caltrain stations, BART stations, Bus Rapid Transit (BRT) stations, or major bus stops. For a project to qualify for an auto trip reduction near a future transit station, the transit capital project that will include the station must be under construction at the time of the TIA Notification Form issuance. A major bus stop for the purposes of trip reductions is defined as a stop where six or more buses per hour (from the same or different routes) stop during the peak period. A development qualifies as being located near transit if the project entrance (housing front door, office pedestrian entrance) and greatest density of the project are within approximately 2,000-foot walking distance of the specified transit facility.

Projects that take any of the trip reductions described in this section shall provide a map or text description indicating the walking route from the project to the transit stop. The TIA should identify any pedestrian barriers that affect access from the development to the transit facility, including gaps in the sidewalk network and/or street crossings that lack pedestrian crossing facilities. If any pedestrian barriers as described above exist in the route between the project site and the transit stop, the project would be disqualified from taking a trip reduction for proximity to transit unless the project commits to fully funding any improvements needed to close the gap.

It is recognized that the 2,000 foot walking distance is not all or nothing – since many residents and employees outside that radius still walk to transit, though at diminishing rates as the distance from the station increases. In the case where the full development is not within a 2000-foot walk, placement of the more concentrated land uses closest to the transit facility is recommended. Projects located greater than 2,000 foot walking distance *may* qualify for the trip reductions described below. To qualify, the TIA must include a justification for the trip reduction based on evidence from studies of similar projects. The evidence provided should demonstrate that the proposed trip reduction is

[22] Based on VTA's review of 1997 Caltrain and LRT shuttle ridership to and from Santa Clara County employment sites.

likely to be achieved given the land use context, distance from transit, type of transit service available, and pedestrian and bicycle conditions between the project site and the station. The Lead Agency may consider using the Peer/Study-based Approach to trip reductions (see ***Section 8.2.3***), if appropriate.

To bolster the case for a trip reduction at a distance of greater than 2,000 feet from transit, VTA recommends that the project increase the quality of the walk experience between the development and the transit facility. Examples of these types of improvements include constructing sidewalks greater than the minimum sidewalk width, providing pedestrian scale lighting and landscaping, and adding signs to direct pedestrians and bicyclists to transit. In addition, the project must show that safe, pedestrian-friendly sidewalks or paths extend all the way from the project site to the transit stop.

Professional judgment should be used when taking transit proximity-related trip reductions from trip generation developed using alternative methodologies. Where a travel demand model or mixed-use trip generation model is used to estimate trips on all modes (i.e., including a mode choice component), care should be taken to not double-count the effect of proximity to transit.

The trip reduction values allowed for each type of project are as follows:

1. **Housing Near Light Rail, Bus Rapid Transit or Caltrain Station:** Housing developments where the walking distance from the unit or the front door of the housing complex to the station is 2,000 feet or less may reduce their trip generation volumes by nine percent (9%).[23] *In the case that a development is located near a rail/BRT station and a major bus stop, a reduction can only be taken for either the major bus stop or the rail/BRT station, and not a combination of the two transit facilities.*

2. **Housing Near a Major Bus Stop:** Housing developments where the walking distance from the unit or the front door of the housing complex to the major bus stop is 2,000 feet or less may reduce their trip generation volumes by two percent (2%).[24] *This reduction may not be combined with the trip reduction for housing located near light rail, BRT or Caltrain*.

3. **Employment Near Light Rail, Bus Rapid Transit or Caltrain Station:** Employment sites where the walking distance from the front door of the development to the station is 2,000 feet or less may reduce their trip generation volumes by six percent (6%).[25] *In the case that a development is located near a rail/BRT station and a major bus stop, a reduction can only be taken for either the major bus stop or the rail/BRT station, and not a combination of the two transit facilities.*

4. **Employment Near a Major Bus Stop:** Employment sites where the walking distance from the front door of the development to the major bus stop is 2,000 feet or less may reduce their

[23] Santa Clara County Transportation Agency, "Transit-Based Housing Survey," September 1995.

[24] Same as previous footnote.

[25] Lund, Cervero, Wilson, *Travel Characteristics of Transit-Oriented Development in California*, Bay Area Rapid Transit District and California Department of Transportation, 2004.

trip generation volumes by two percent (2%). *This reduction may not be combined with the trip reduction for employment sites located near light rail, BRT or Caltrain.*

5. **Case-by-Case Approach for Proximity to BART Stations:** Residential and employment developments where the walking distance from the front door of the development to an existing or future BART station is 2,000 feet or less may apply a trip reduction in a TIA. When proposing such a reduction, Lead Agencies must obtain concurrence from VTA and provide a description of the methodology, source data and justification for the trip reduction in the TIA Report. The trip reduction for proximity to BART should take into account the attributes of the station area (land uses, transportation network, pedestrian and bicycle connections to the station) to ensure that the requested reductions are appropriate for the context. VTA may in the future provide suggested trip reduction rates (standard reductions) when data from the Santa Clara County BART stations becomes available.

8.2.1.4 Standard Trip Reduction Combinations

Projects that combine two or more trip reduction strategies for which Standard Reductions are specified may take reductions off the trips generated by individual project components, as discussed below. The reductions shall be clearly explained, documented, and justified in the project's TIA Report and shall conform to the values listed in ***Section 8.2*** unless special circumstances are justified in the project's TIA.

Application of multiple trip reduction strategies will depend on the type and ratio of uses present in the project under study. For example, a mixed-use project composed mostly of housing with some retail that also participates in a shuttle program is allowed a 15% mixed-use reduction on the retail trip generation of the project. The housing trips should be reduced by no more than the same number of retail trips internal to the project. In addition, the housing component of the project will be allowed a 3% reduction for participation in a shuttle program. However, if the shuttle will serve the retail use as well as the housing component, and the retail use is large and generates a majority of the daily project trips, the 3% reduction for shuttle participation may be applied to both the retail and housing components of the project.

Similarly, a mixed-use housing and retail project located near transit will be allowed 15% reduction on trips generated by the retail portion of the project to account for the mixed-use nature of the project. Again, the housing trips should be reduced by no more than the same number of retail trips internal to the project. In addition, the housing portion will be allowed a 9% reduction for the location near transit.

If the TDM shuttle trip reduction is being combined with the 'Employment near LRT, BRT or Caltrain Station' reduction, the maximum shuttle trip reduction that can be taken is one and one-half percent (1.5%).

8.2.1.5 Parking and Automobile Trip Reduction

Recognizing that parking oversupply may itself have negative secondary effects, the TIA should discuss the project's approach to parking management. A parking management plan, shared parking, parking cash out, unbundled parking, carpool parking, and parking layout and design can be ways to encourage the use of alternative modes and reduce auto trips. If the project is using any of these measures as part of its overall TDM/trip reduction strategy, the Lead Agency shall document it in the TIA, and note it in the Auto Trip Reduction Statement. The parking analysis must explicitly discuss the relationship between the project's parking supply, parking demand and parking costs (if any) to vehicle trip reductions applied to the project.

8.2.2 Target-Based Trip Reductions

In addition to Standard Trip Reduction and Peer/Study-Based Trip Reduction approaches, projects may take a Target-Based Trip Reduction if documentation and justification are provided in the TIA Report, based on the guidance below. This approach may be taken when the project applicant has entered into an enforceable agreement with the Lead Agency that limits the number of automobile trips traveling to and from the project site. The trip reduction program must include a commitment to monitor trip generation and determine whether targets are met, an enforcement structure, and a commitment to summary-level data sharing.

It is recognized that Lead Agencies ultimately make decisions on project approvals, and therefore commitments to certain elements that would justify a Target-Based Trip Reduction will occur as an agreement between the project applicant and the Lead Agency, and it is responsibility of the Lead Agency to enforce those commitments. For the purpose of a TIA, stating a commitment and providing the documentation noted below is sufficient, provided that the commitment also appears in a legally enforceable document. Examples of such documents, for trip reduction documentation purposes, include Conditions of Approval, Development Agreements, CEQA Mitigation Monitoring & Reporting Programs (MMRPs), and/or Covenants, Conditions, & Restrictions (CC&Rs).

The following elements are **required** in a TIA Report for a project taking a Target-Based Trip Reduction:

- State a commitment to a specific reduction target (percentage trip reduction, non-auto mode split or trip cap). This statement should specify the starting point for the reduction (e.g., ITE auto trip generation rates based on square footage or number of units, total person-trips based on employee/resident count) and the time period for the reduction (peak hour, peak period and/or full day). For targets based on mode split, the statement should include a clear explanation of how to convert these figures back to auto trip generation rates to allow later monitoring and comparison;
- Provide a description of the types of TDM/trip reduction measures that are proposed in the program. It is recognized that the list will be preliminary and may change over time;

- State a commitment to periodic monitoring of project trip reduction. The methodology should follow industry standards to determine auto trip generation rates or mode splits and should be conducted by the Lead Agency or a third party. The TIA Report should describe the proposed monitoring approach;
- State a commitment to an enforcement/penalty structure. Lead Agencies retain flexibility to determine the parameters, and the enforcement/penalty structure may take the form of a 'reinvestment clause' where the project applicant/owner is required to invest more in trip reduction efforts if not meeting the target;
- State a commitment to provide summary level monitoring data (e.g., auto trip generation rates, mode shares) to VTA, through the Lead Agency. Data shall be provided on a biennial basis as part of the CMP Monitoring and Conformance Program.

The following elements are **encouraged** in a TIA Report for a project taking a Target-Based Trip Reduction:

- Detailed description of the TDM/trip reduction measures that are proposed in the program;
- Sharing of trip monitoring reports or more in-depth trip generation or survey data for the purpose of improving the *TIA Guidelines* in the future.

8.2.3 Peer/Study-Based Trip Reductions

In addition to Standard Trip Reduction and Target-Based Trip Reduction approaches, projects may take a Peer/Study-Based Trip Reduction if documentation and justification are provided in the TIA Report, based on the guidance below. This approach may be used to justify a trip reduction based on a project's similarity to other projects with demonstrated trip reductions or a project occupant's track record of reducing trips at other sites, or to provide additional justification for trip rates based on local data collection efforts.

The following describes the requirements for documenting and justifying a Peer/Study-Based Trip Reduction percentage:

- Provide Data/Documentation in TIA Report: Lead Agencies may rely on existing studies or conduct their own study, as appropriate to develop the Peer/Study-Based trip reductions, and this data and documentation must be included in the TIA Report or its appendices. The documentation must include the data used to justify the Peer/Study-Based trip reduction rate, the source(s) referenced, and a detailed discussion of the assumptions and methodologies used. The methodology used to develop the Peer/Study-Based trip reduction rate should follow industry standards and in cases where the trip reduction rate is based on a limited sample size, professional judgment should be used to determine the suitability of the sample data;
- Ensure Appropriateness**:** Care must be taken to use data that is applicable to Santa Clara County conditions. As part of the documentation, Lead Agencies must specify the sample size, urban context, quality and type of transit services available, and any other relevant findings pertaining to the particular project attribute(s) in question;

- Provide a description of the types of TDM/trip reduction measures that are proposed in the program, if applicable;
- State a commitment to periodic monitoring of project trip reduction**:** The methodology should follow industry standards to determine auto trip generation rates or mode splits and should be conducted by the Lead Agency or a third party. The TIA Report should describe the proposed monitoring approach;
- State a commitment to provide summary level monitoring data (e.g., auto trip generation rates, mode shares) to VTA, through the Lead Agency. Data shall be provided on a biennial basis as part of the CMP Monitoring and Conformance Program.

See ***Table 2***, below, for a comparison of Standard, Peer/Study-Based and Target-Based trip reduction approaches.

Table 2: Comparison of Trip Reduction Approaches

	Standard Reductions	**Peer/Study-Based Reductions**	**Target-Based Reductions**
Maximum percentages in VTA *TIA Guidelines*?	Yes, see ***Table 1: Standard Auto Trip Reduction Rates***	No	No
Data required in TIA Report?	No	Yes, existing or new studies	No
Commitment to a target required?	No	No	Yes
Description of measures required?	No	Yes, if applicable	Yes
Monitoring required?	No	Yes	Yes
Enforcement required?	No	No	Yes
Data Sharing required?	No	Yes	Yes

8.3 Trip Distribution and Assignment

The trip distribution step of a TIA consists of forecasting the travel direction of project-generated trips to and from the project site.

The trip distribution percentages shall be included in the TIA Report on a figure showing an area map with transportation facilities (roadways, transit lines, etc.) and the project site. The trip distribution figure should, at a minimum, show trip percentages at gateways, on nearby freeway segments, and along major arterials that provide direct access to the project site.

The trip assignment step of a TIA consists of assigning trips to specific transportation facilities on the basis of the trip distribution percentages. Assignment of trips should be based on existing traffic volumes, existing travel patterns or expected future travel patterns. The assignment of trips shall account for pass-by and diverted linked trips on transportation facilities near the project site (see ***Section 8.3.1***). The trip assignments shall be included in the TIA Report on a figure showing project trips at study intersections.

The following are points that expand or provide detail regarding trip distribution and assignment:

1. **Review by Other Jurisdictions**: The Lead Agency shall be responsible for developing the trip distribution and assignment for a project. The trip distribution and assignment shall be reviewable by other jurisdictions (other cities, towns, the County, Caltrans, and/or VTA). Review by other jurisdictions should occur at the TIA Notification Form stage of the TIA preparation process. It is the responsibility of other jurisdictions to request trip distribution and assignment information from the Lead Agency once they are notified about a project.

2. **Use of VTA or Local Agency Models**: Model data may be used to develop trip distribution assumptions for a project. The use of this data is most appropriate for long-term projects or for near-term development projects where the roadway network in the vicinity of the project will change substantially. VTA can also provide trip tables by trip purpose and travel networks to Member Agencies that may be used to develop trip distribution assumptions for a project.

3. **Documentation of Assumptions**: The project's trip distribution and assignment assumptions shall be clearly documented in the TIA Report.

8.3.1 Pass-by Trips and Diverted Linked Trips

Some projects will attract a large number of trips already on the system. For example, many people who would stop at a new neighborhood convenience store would do so on their way home from work; these people would not be making new vehicle-trips on the roadway. These pass-by trips are generally captured by small neighborhood services such as dry cleaners, convenience stores, gas stations and coffee shops and to a lesser extent such uses as grocery stores, pharmacies, shopping centers and restaurants. Such trips are classified into two categories: pass-by and diverted linked trips. According to the ITE *Trip Generation Handbook*, pass-by trips are attracted from traffic passing a site on an adjacent street that contains direct access to the generator. Pass-by trips do not require a diversion from another roadway. Diverted linked trips are attracted from roadways in the vicinity of a site and require a diversion from one roadway to another to gain access to the site.[26]

8.3.2 Allowable Reductions for Pass-by Trips and Diverted Linked Trips

A reduction in project vehicle trip generation can be made for pass-by and diverted linked trips, provided that the reduction is applied according to the methodology outlined in the following

[26] Institute of Transportation Engineers, *Trip Generation Handbook*, 2nd Edition, 2004, Chapter 5, pp. 29-82.

section. *This reduction must be clearly explained, justified, and documented in the TIA Report*. The trip reduction for pass-by and diverted linked trips shall be determined from established sources, such as ITE's *Trip Generation Handbook*, SANDAG, or surveys of similar land uses. Note that reductions for pass-by trips often differ from those for diverted linked trips. The pass-by and diverted linked trip reduction may only be taken for commercial land uses and should not be more than a **thirty percent (30%) combined pass-by and diverted linked trip reduction**. In addition, pass-by and diverted linked trips may not be excluded from the calculation of the 100 net new peak hour trip threshold that triggers the requirement for conducting a TIA except as noted in ***Section 2.1***.

There are a few exceptions where pass-by and diverted linked trips may account for more than 30% of the trips made, such as at gas stations, fast food establishments, community centers, local public libraries, and isolated mini-markets. A higher trip reduction rate may be applied to these uses with approval of the Lead Agency and VTA. As with other pass-by trip reductions, the reduction rate must be clearly explained, justified, and documented in the TIA.

8.3.3 Application of Pass-by Trip and Diverted Linked Trip Reductions

Subtracting pass-by and diverted linked trips from a site's trip generation volumes lowers the number of new trips added to the surrounding transportation system. However, additional turning movements or changes to the turning movements due to pass-by and diverted linked trips should be taken into account in transportation analyses to determine their impact on adjacent roadways. Answers to questions such as whether left turn pockets are long enough, whether U-turns are allowed, and whether additional turning movements will slow or conflict with other traffic are dependent on all project trips including the pass-by and diverted linked trips. ***Appendix E*** includes a methodology for applying pass-by and diverted linked trip reductions.

Chapter 9. Project Conditions and Impacts/Effects

The TIA Report shall evaluate the addition of the project, along with estimated project-generated trips, to the "without project" analysis scenario (Existing, Background, or Cumulative Conditions without the project, as appropriate). This shall include the identification of any project impacts on CMP roadway facilities, and any negative effects on bicycle, pedestrian or transit conditions or vehicle queuing.[27] Mitigation measures and their associated costs shall be identified for impacts that exceed the impact thresholds described below. In some cases, such as a development project that closes a sidewalk gap or adds a bicycle lane to its frontage, effects on the transportation system may be beneficial as well as adverse. Lead Agencies are encouraged to describe the beneficial effects of a project; this information may also be included in a CEQA document.

9.1 Traffic

The TIA Report shall contain an evaluation of project impacts to traffic operations. Evaluation of impacts to traffic operations shall include, but not be limited to Auto Level of Service analysis and queuing analysis.

9.1.1 Auto Level of Service Analysis

The CMP Auto Level of Service (LOS) standard is LOS E. ***If the analysis shows that a development project is projected to cause Auto LOS on a CMP facility (roadway or intersection) to fall from LOS E or better to LOS F under project conditions, then the project is said to impact the facility***.

In addition, for facilities determined to have been at LOS F under the without project analysis scenario (Existing, Background or Cumulative Conditions without the project), a project is said to impact the facility if the analysis shows that the project will cause Auto LOS to deteriorate by a given threshold amount. The threshold amounts for each of the three CMP facility types are described as follows:

1. **Intersections at LOS F**: A project is said to impact an intersection determined to have been at LOS F under the without project analysis scenario if:
   - ***addition of the project traffic increases the average control delay for critical movements by four (4) seconds or more, and***
   - ***project traffic increases the critical v/c value by 0.01 or more.***

   The exception to this threshold is when the addition of project traffic reduces the amount of average control delay for critical movements, i.e., the change in average control delay for critical movements are negative. In this case, the threshold is when the project increases the critical v/c value by 0.01 or more.

2. **Freeway Segments at LOS F**: A project is said to impact a freeway segment determined to have been at LOS F under the without project analysis scenario if ***the number of new trips***

[27] The determination of which facilities to evaluate is described in ***Section 2.2*** of these Guidelines.

added by the project is more than one percent of the freeway capacity. This calculation shall be for each direction of travel. Analysis should be conducted for all freeway lane types to which project trips are assigned, including HOV and Express Lanes, if applicable. Tables for the freeway analysis determination and impact analysis should include detailed data such as density and speed. Sample tables are shown in ***Appendix A*** (*Table A-1: Sample of Freeway Analysis Requirement Determination* and *Table A-2: Sample of Freeway Analysis Summary*).

3. **Rural Highway at LOS F**: A project is said to impact a rural highway determined to have been at LOS F under the without project analysis scenario, if ***the number of new trips added by the project is more than one percent of the rural highway capacity***. This calculation shall consider both directions of travel.

9.1.2 Queuing Analysis

A queuing analysis shall be included in a TIA, at a minimum, in the following instances:

- At CMP intersections where Auto Level of Service (LOS) analysis indicates that there will be a significant impact according to the CMP LOS standard;
- At on-ramps with existing or planned operational ramp meters;
- At off-ramps controlled by signals at junctions with local streets;
- At any other intersection or freeway on-ramp, based on engineering judgment, proximity of the project to a freeway interchange, existing queuing situations (such as spillback onto local streets from on ramps), or localized conditions along the project's frontage.

Negative effects of queuing on CMP facilities shall be identified by comparing the calculated design queue to the available queue storage. Queuing effects to be identified include, but are not limited to the following:

- Spillback queues from turn lanes at intersections that block through traffic;
- Queues from one intersection or closely-spaced intersections that extend back and impact other intersections;
- Queues from bottleneck locations such as lane drops that impact the operation of the facility;
- Spillback queues on ramps that impact surface street or freeway operations;
- Queues at intersections in proximity to freeway ramps.

Evaluation of queuing effects is required for only the near-term analysis. However, Lead Agencies may require this analysis for longer term projects to plan for improvements in later years.

Refer to the VTA *Traffic Level of Service Analysis Guidelines* for further information on ramp queuing analysis. Lead agencies should contact Caltrans staff to obtain current ramp metering rates.

9.2 Transit

The TIA Report shall include an analysis of project effects on the transit system. The evaluation shall consider transit vehicle delay, transit access and facilities, as described below.

Transit Vehicle Delay: The TIA Report shall include an analysis of the effects of the project on transit vehicle delay. This analysis shall include the following components:

- A quantitative estimate of additional seconds of transit vehicle delay that will result from automobile congestion caused by the project and any changes to signal operations proposed by the project. This analysis may utilize information produced by the intersection Auto Level of Service (LOS) analysis or other sources, if available;
- A qualitative assessment of additional transit vehicle delay caused by any roadway or intersection geometry changes proposed by the project, taking into account unique considerations of transit vehicles compared to autos (e.g., pulling into and out of stops, longer gaps needed for left turns). These qualitative considerations may also inform the assessment of transit vehicle delay caused by auto congestion.

If increased transit vehicle delay is found in this analysis, the Lead Agency should work with VTA to identify feasible transit priority measures near the affected facility and include contributions to any applicable projects that improve transit speed and reliability in the TIA. Refer to ***Section 10.2*** for more information on improvements to address congestion effects on transit travel times.

More information on the practice and research basis for transit delay analysis can be found in ***Appendix F*****.**

Transit Access and Facilities: The TIA Report shall include an assessment of transit access and facilities near the project site. The assessment shall include the following elements:

- Description of pedestrian access from the project to nearby transit stops. This should include both an assessment of access within the site (i.e., from buildings on the site to the public sidewalks) and off-site (i.e., presence/absence of continuous sidewalks and safe crossings to access transit);
- Disclosure of any permanent or temporary reduction of transit availability or interference with existing transit users (e.g., relocation/closure of a transit stop or vacation of a roadway utilized by transit);
- Disclosure of project location more than 1/2 mile from existing or planned transit services, with the potential for generating a demand for such services. Such projects are encouraged to identify funding sources to provide public or private transit services, if needed;
- Description of proposed actions to enhance transit service, access or facilities (e.g., bus stop improvements on a project frontage), or to mitigate negative effects on existing transit systems or facilities that result from the proposed project.

9.3 Bicycle and Pedestrian

The TIA Report shall include an analysis of bicycle and pedestrian modes under project conditions. The analysis shall address project effects on existing bicyclists and pedestrians as well as the effects and benefits of site development and associated roadway improvements on bicycle/pedestrian infrastructure, circulation, Quality of Service (QOS), and conformance to existing plans and policies. (Bicycle/pedestrian site access and circulation are addressed in ***Section 9.4***.)

Quality of Service Analysis

Projects that propose changes to existing roadway or intersection geometry, or changes to signal operations, shall include a QOS analysis for bicyclists and pedestrians for those locations where changes are proposed.

Lead Agencies have the discretion to select appropriate methodologies for bicycle and pedestrian QOS analysis. Agencies must include a description and justification of the methodology being used, and identify key data inputs and assumptions for the methodology. Agencies are encouraged to use the methodology in the latest Highway Capacity Manual, or a similar methodology, for the QOS analysis. See ***Chapter 5*** and ***Appendix G*** for more information on pedestrian and bicycle QOS methodologies. VTA staff can act as an additional resource to Lead Agencies in selecting QOS methodologies.

Projects that do not propose changes to existing roadway or intersection geometry, or changes to signal operations, are not required to include a QOS analysis, but such analysis is encouraged for project frontages.

Descriptive Analysis

In addition to the QOS analysis (if applicable), the TIA Report shall include a descriptive evaluation of project effects on and benefits to bicycle and pedestrian conditions. The descriptive analysis should encompass a radius of 2,500 feet from the project site for bicycle facilities, and a radius of 1,000 feet from the project site for pedestrian facilities. Within this radius, the descriptive analysis should focus on the project street frontages, paths to major attractors (such as transit facilities, schools, shops and services, and major residential developments), and bicycle and pedestrian deficiencies identified in the Existing Conditions analysis.

The following questions should be addressed:

1. Consistency with Existing Adopted Plans
    - How does the project implement, preclude, modify, or otherwise affect proposed bicycle and pedestrian projects and/or policies identified in the Lead Agency's adopted Bicycle Plan, Pedestrian Plan, Trails Master Plan, and/or bicycle/circulation element of their General Plan?
    - How does the project implement, preclude, modify, or otherwise affect proposed bicycle and pedestrian projects and/or policies identified in other agencies' plans (e.g., Countywide Bicycle Plan, adjacent cities' Bicycle Plans or Pedestrian Plans, Bay Trail Plan)?
    - What provisions for bicycle parking and storage are provided by the project? Calculate the required bicycle parking in accordance with the City's ordinance or, if none, VTA *Bicycle Technical Guidelines (BTG)*, and indicate proposed type of Class 1 and Class 2 parking to be provided by the project. Proposed bicycle parking locations should be noted on the site plan. Refer to ***Appendix H*** for a table of Bicycle Parking Supply Recommendations from the VTA *BTG*.

2. Effects on Existing Bicyclist/Pedestrian Circulation in the Project Area
    - Would the project benefit or enhance existing bicycle and pedestrian access and circulation? For example, would it provide bicycle-friendly and pedestrian-friendly improvements like those identified in VTA *BTG*, *Pedestrian Technical Guidelines*, or *CDT Manual*? If so, describe;
    - Would the project reduce, sever or eliminate existing bicycle or pedestrian access and circulation? If so, describe;
    - How does the project address bicycle and pedestrian deficiencies identified in the Existing Conditions analysis?
    - If a new traffic signal is being installed as part of the project or project mitigation, the TIA should note that adequate bicycle and pedestrian detection and signal timing should be provided. (See VTA *BTG,* Chapter 6.)

9.4 Site Circulation and Access

The TIA Report shall include an analysis of site circulation and access. The evaluation of site circulation and access shall consider the following issues:

- The assessment of site circulation and access must explicitly discuss the relationship between site design and any vehicle trip reductions that are applied to the project. The assessment should include the pass-by and diverted trips that would access the site;
- The assessment of access shall include an analysis of trips entering and exiting the site at each driveway. Distribution of trips to access points should consider street configuration, storage lanes, acceleration and deceleration lanes, and sight distance;
- A Site Plan shall be provided with adequate detail to show auto, bicycle and pedestrian circulation within the site and connections to the outside transportation network;
- The site circulation and access assessment shall include an analysis of the proposed bicycle access and onsite circulation with recommendations to encourage bicycle trips to and within the site. Address adverse circulation issues, if any, which were identified in the Existing Conditions analysis;
- The assessment of site access shall include an analysis of the proposed pedestrian access and onsite circulation with recommendations to encourage pedestrian trips to and within the site. Include an assessment of pedestrian access between the site and the nearest bus stops. Address adverse site circulation issues, if any, which were identified in the Existing Conditions analysis. Also address the extent to which the ability of bicyclists and pedestrians to access the project site is inhibited by manmade and natural barriers such as railroad crossings, rivers, freeways, dead-end streets, and cul-de-sacs;
- The site circulation and access assessment may also include analysis of emergency vehicles and service vehicles, including delivery and garbage trucks.

Chapter 10. Mitigation Measures and Multimodal Improvements

This chapter describes the analysis required to evaluate 1) mitigation measures to address project impacts per CMP standards, and 2) improvements to address other project-related effects on the transportation system, including changes that affect transit, pedestrian and bicycle modes and queuing at ramps and intersections. Throughout this section, "impact" is used to refer to project effects on the CMP system as determined by the standards and impact thresholds established by VTA, and "mitigation" is used to refer to changes that address those impacts. The term "effect" refers to project-related effects on elements of the transportation system for which no CMP standard or impact threshold has been established, and "improvement" is used to refer to changes that address those effects. The TIA should particularly focus on project-related effects that tend to degrade pedestrian, bicycle and transit conditions.

10.1 Mitigations to Address CMP Standards

The TIA Report shall include a discussion of mitigation measures to address any impacts per CMP standards identified in the analysis. The TIA shall identify those mitigations for which the sponsor of the proposed project is responsible. The following issues regarding mitigation measures shall be addressed:

1. The goal of the Lead Agency shall be to maintain the CMP Auto Level of Service (LOS) standard on CMP facilities, and to mitigate any other impacts identified in the TIA Report. However, if this is not possible, mitigation measures that minimize impacts by limiting the degree or magnitude of the action and its implementation, and/or compensate for the impact by replacing or providing substitute resources shall also be considered. The mitigation measure could be fully-funded and implemented by the project sponsor or the project sponsor could make a contribution to the cost of implementing the measure, in coordination with other agencies. Information on voluntary contributions to regional transportation improvements can be found in ***Appendix I***, ***Board Memorandum: Update on Voluntary Contributions to Transportation Improvements***.

2. The Lead Agency shall consider all of the following categories of mitigation measures for impacts identified through the analysis:
   - Physical or capacity-enhancing improvements to the affected transportation facility (e.g., adding a turn lane to an intersection to address an Auto LOS impact);
   - Operational and/or efficiency improvements to the affected transportation facility (e.g., changing signal operations at an intersection or contributing to the implementation of Express Lanes on a freeway segment to address an Auto LOS impact);
   - Projects and programs used to reduce project auto trip generation, including TDM programs as well as capital improvements to transit, bicycle and pedestrian facilities, if not already included in the proposed project description. Examples could include constructing wider sidewalks, adding a bicycle lane or non-motorized trail, or a shuttle service from the proposed development to a nearby transit facility (e.g., BRT stop or light rail station).

3. The Lead Agency shall identify the feasibility of the proposed mitigation measures. Feasibility of physical improvements shall be verified in the field. Feasibility of all measures shall be confirmed with the appropriate agency or agencies (e.g., the agency responsible for maintaining a roadway or for implementing an operational improvement). Proposed mitigation measures for impacts to CMP facilities must be reviewed with VTA staff prior to the issuance of the TIA Report.

4. The description of all mitigation measures shall include identification of who is responsible for implementing each mitigation measure, when the mitigation measure will be implemented as it relates to the occupancy of the proposed project, and the cost of implementation, as appropriate. The cost estimate for mitigation shall be based on the feasibility analysis and/or a Capital Improvement Program estimate, if available. Lead Agencies are encouraged to have a registered civil engineer develop the cost estimate for any physical mitigations.

5. ***If a project causes a transportation impact that cannot be mitigated to the CMP Auto LOS standard, a Multimodal Improvement Plan must be provided along with the TIA, or the project applicant must agree in advance to participate in the implementation of the Multimodal Improvement Plan after project approval.*** Multimodal Improvement Plans are plans to identify offsetting measures to improve transportation conditions on CMP facilities in lieu of making physical traffic capacity improvements such as widening an intersection or roadway. Further information regarding steps for developing Multimodal Improvement Plans, and how Multimodal Improvement Plans relate to the land use approval process, is provided in the VTA *Deficiency Plan Requirements*.

   Multimodal Improvement Plans can range in size from Areawide (such as an entire city) to Specific Area (such as a roadway segment within a downtown area) to Mini (covering a single intersection). If the need arises for the preparation of a Multimodal Improvement Plan, VTA will work with the Lead Agency to tailor the level of the Multimodal Improvement Plan to match the scope of the deficiency. VTA will work with the Lead Agency as necessary to identify action items (or offsetting measures) as described in the VTA *Deficiency Plan Requirements*. Action items from the *Deficiency Plan Requirements* are provided in ***Appendix J.***

6. If a project impacts a CMP System facility that has a Multimodal Improvement Plan, it is subject to the conditions of the Plan. The project's TIA Report shall identify what role the project will play in implementing the Multimodal Improvement Plan actions.

7. Mitigation measures for Auto Level of Service (LOS) shall not unreasonably degrade bicycle, pedestrian or transit access, and circulation. If a project proposes mitigation for Auto LOS involving a change to existing roadway or intersection geometry, or changes to signal operations, the TIA shall analyze and disclose secondary effects on other modes, i.e., whether the mitigation would affect pedestrian or bicycle conditions or increase transit vehicle delay.

For the bicycle and pedestrian secondary effects analysis, a QOS-based methodology (as cited in ***Sections 5.2.5*** and ***5.2.6***) is encouraged, although a text description of changes may be substituted. At a minimum, the TIA shall disclose any of the following effects that would result from a recommended mitigation measure:

- Reducing, severing or eliminating existing bicycle or pedestrian access and circulation;
- Narrowing of sidewalk or removal of sidewalk (even if only on one side of street);
- Removal of crosswalk;
- Increased crossing distances;
- Longer signal cycles;
- Removal of a buffer between pedestrians and automobiles;
- Decreasing bike lane width or eliminating bike lane including at intersection approach due to addition of right-turn only lane;
- Reducing shoulder width to less than five feet on roadways without bike lanes (see VTA *BTG*, Section 7.4.2);
- Decreasing outside lane width on roadway without bike lanes or shoulders (see VTA *BTG*, Section 7.2);
- Installation of double right-turn lane, a free right-turn lane, or free-flowing freeway on and off ramps (see VTA *BTG*, Section 5.1);
- Revised signal timing and inadequate detection (see VTA *BTG*, Chapter 6, for recommendations on bicycle signal timing and detection at intersections);
- Changes to existing bike paths such as alignment, width of the trail ROW or trail tread, length of the trail, horizontal and vertical clearance;
- Precluding, modifying, or otherwise affecting proposed bicycle and pedestrian projects and/or policies identified in the Lead Agency's adopted Bicycle Plan, Pedestrian Plan, Trails Master Plan, and/or bicycle/circulation element of their General Plan; or other agencies' plans, e.g., Countywide Bicycle Plan, adjacent Cities' Bicycle Plan or Pedestrian Plan, Bay Trail Plan;
- Other roadway modifications that adversely impact bicycle or pedestrian conditions.

The analysis of secondary effects on transit vehicle delay resulting from proposed mitigation measures shall include the following components:

- A quantitative estimate of additional seconds of transit vehicle delay that will result from any signal operations changes proposed by the mitigation. This analysis may utilize information produced by the intersection Auto LOS analysis or other sources, if available;
- A qualitative assessment of additional transit vehicle delay caused by any change to existing roadway or intersection geometry proposed by the mitigation, taking into consideration unique considerations of transit vehicles compared to autos (e.g., pulling into and out of stops, longer gaps needed for left turns).

10.2 Improvements to Address Other Project-Related Effects

Per the requirements set forth in ***Chapter 9, Project Conditions and Impacts/Effects***, the *TIA Guidelines* require Lead Agencies to analyze project effects on certain parts of the transportation system for which no CMP standard or impact threshold has been established. For the bicycle and pedestrian analysis of Project Conditions, a QOS-based methodology is required in certain situations and a descriptive analysis is required in all cases (as described in ***Section 9.3***). For the transit analysis of Project Conditions, an analysis of transit vehicle delay, transit access and facilities is required (as described in ***Section 9.2***).

As no CMP standards or impact thresholds have been established for these modes, Lead Agencies may opt to use this analysis in the TIA for informational purposes only. However, if the bicycle, pedestrian and/or transit analysis shows that the project would degrade conditions for one or more of these modes, the Lead Agency is encouraged to identify improvements that would reduce the effects. Improvements may include, but are not limited to:

- Providing or improving sidewalks, providing pedestrian crossing facilities or pedestrian wayfinding systems, or modifying intersections to shorten crossing distances (e.g., by installing curb extensions);
- Providing additional bicycle lane markings at intersections, bicycle signage, and/or increasing bicycle lane widths;
- Modifying signal timing and/or signal equipment for bicyclists and pedestrians;
- Adding a queue jump lane or bulb-out transit stop to address a congestion effect on transit travel speed;
- Contributing to the implementation of Transit Signal Priority[28] to address a congestion effect on transit travel speed.

Some improvements to address congestion effects on transit travel speed may be feasible to implement on a case-by-case basis, such as queue jump lanes and bulb-out transit stops, while some measures would require closer coordination with VTA to determine whether an applicable project exists, such as transit priority signal timing and dedicated transit lanes. In all cases, the Lead Agency should consult with VTA to determine the feasibility of any improvement.

If the TIA includes queuing analysis (see ***Section 9.1.2***) and finds that freeway ramp spillback will occur, potential improvements include additional lanes (either HOV or mixed-flow) on ramps, or restriping. If the Lead Agency proposes a change to freeway ramps, including ramp metering flow rates, it should consult Caltrans. If the queuing analysis finds that spillback will occur at intersections, potential improvements include lengthening turn pockets, restriping, or changes to signal operations.

[28] VTA will coordinate with the Lead Agency before implementing Transit Signal Priority.

Chapter 11. Future Year Scenarios (Cumulative Conditions)

This chapter provides guidance for future year (Cumulative Conditions) scenario analysis for CMP purposes. In general, the Cumulative Conditions scenario is analyzed as the combination of Background Conditions (Existing Conditions + Approved Projects) + Expected Growth + Project.

Lead Agencies should note that future year/Cumulative Conditions scenarios may be defined differently for CEQA documents than for TIAs. The analysis method that shall be used for preparing a Cumulative Conditions Scenario in a TIA depends on the type of project under development or planning effort underway, as well as the time horizon. Analysis methods for preparing a TIA for near-term development projects, long-term development projects and long-term general planning efforts are presented in this chapter. Definitions for terms used in this chapter are provided in ***Appendix L***.

11.1 Near-Term Development Project (occupancy within five years of approval)

Near-term development projects include most development projects encountered by local agencies as part of their day-to-day operations. The development proposal for a near-term project, when approved, will generally result in the granting of an entitlement for the construction of a specific type and size development. A near-term project will usually be built and occupied within five years of project approval.

The *TIA Guidelines* must be followed to analyze transportation impacts associated with near-term specific development projects. For near-term development projects, Lead Agencies may use two cumulative analysis scenarios for planning and information purposes: Opening Year/Short-Term and Long-Term.

11.1.1 Opening Year/Short-Term Analysis

The opening year/short-term Cumulative Conditions analysis of a near-term development project shall consist of an analysis of growth expected until the project is available for final occupancy. The Lead Agency shall be responsible for determining the approach for calculating Expected Growth. Expected Growth can be estimated in three ways:

a. Apply an annual growth rate to Background Conditions;
b. Estimate trips generated by other proposed development projects in the area; or
c. Apply an annual growth rate and estimate trips generated by other proposed development projects in the area.

Data from the CMP Monitoring and Conformance Program can be used to estimate an annual traffic growth rate for near-term developments. If other proposed development projects are expected to generate more trips in the area than the estimated trips using a growth rate, then the Expected Growth should be based on method (b) or (c) above.

11.1.2 Long-Term Analysis

The Lead Agency may choose to conduct a long-term Cumulative Conditions analysis (e.g., over a 20 or 25-year time horizon) for CEQA or local purposes. The Lead Agency shall be responsible for determining the approach for calculating Expected Growth. In this case, Expected Growth is typically analyzed in one of two ways:

a. Apply an annual growth rate to Background Conditions; or
b. Use information from a travel demand forecasting model for the Expected Growth in the horizon year.

11.2 Long-Term Development Project (occupancy beyond five years from approval)

Long-term development projects include those that have a specific development proposal that is expected to be built and occupied in more than five years from the date of approval. Due to this project completion time, most long-term development projects are phased-development projects. The following describes the analysis approach for a long-term project with full entitlement and a long-term project with phased entitlement:

- **Entire Project Granted Full Entitlement:** If the entire long-term project is to receive development entitlement, the *TIA Guidelines* must be followed to analyze transportation impacts associated with the entire long-term project. This analysis shall set the likely magnitude of mitigations required of the developer.
- **Phased Project with Phased Entitlement:** The approach to assessing the effects of a long-term project where development entitlement will be phased consists of initially completing a long-term analysis for the entire project at buildout. This analysis shall set the likely magnitude of mitigations required of the developer. This may require the use of a transportation demand model to assist in estimating traffic volumes or travel patterns and conduct the analysis for the buildout scenario. The approach also consists of following the *TIA Guidelines* to analyze transportation impacts for each phase of the project.

With the analysis of each subsequent project phase after the first phase, the long-term analysis for the entire project at buildout shall be re-evaluated. If conditions have not changed, the initial mitigation measures for buildout conditions would remain valid. If conditions have changed, a revised set of mitigation measures for buildout conditions would be developed. The advantage of this approach is that it is unlikely that there will be significant unanticipated transportation impacts of the project that the Member Agency itself will need to mitigate.

Use of the countywide transportation model developed and maintained by VTA or a local transportation sub-model may be appropriate for the analyses of long-term development projects. Refer to ***Section 5.3, Use of Transportation Models***, for more information on modeling procedures and consistency.

11.3 Long-Term General Planning Efforts

Long-term general planning efforts typically include General Plan Amendments, General Plan updates, Precise Plans and Specific Plans, which grant no entitlements for any specific development project. In many cases, preparation of these planning efforts will require environmental review, which will consider transportation. As long as a transportation analysis is being completed, VTA recommends that the analysis be consistent with the *TIA Guidelines* to the extent possible.

Use of the countywide transportation model developed and maintained by VTA may be appropriate for the analyses of long-term general planning efforts. Refer to ***Section 5.3*** for more information on modeling procedures and consistency.

In many cases, the transportation analysis for a long-term general planning effort may produce freeway and arterial volumes, but there may not be enough data to perform detailed intersection-level analyses. The analysis of intersection turning movements as part of a long-term general planning effort analysis should recognize the difficulty in predicting specific travel patterns within a long-term planning horizon. The Lead Agency may wish to supplement the analysis with other, broader measures, such as percent of congested lane-miles, Vehicle Miles Traveled, changes in mode share, and/or measures of network connectivity and distance to destinations for pedestrians and bicyclists.

PART IV – OTHER CONSIDERATIONS

Chapter 12. Special Project Types

12.1 Large or Unique Projects

Lead Agencies that are evaluating large or unique development projects such as arenas, stadiums, large scale mixed-use developments, and large Transit-Oriented Developments (TODs), should facilitate early coordination with the agencies whose jurisdictions will be affected by the projected increased vehicle and person trips by using the TIA Notification Form. Examples of transportation related areas that may require early coordination are trip assignment and trip distribution, assessment of approved projects for the Background Conditions, and assumptions that may be used to identify mitigation measures and improvements.

12.2 Projects on a Jurisdiction Border

Similar to the early coordination process recommended for large or unique projects, a Lead Agency evaluating a development project that is located near or on the city or county border and projected to generate 100 or more net new peak hour trips, should coordinate with the adjacent jurisdiction(s) to discuss transportation related issues such as assessment of existing conditions, trip assignment, trip distribution, and mitigation measures and improvements as appropriate.

12.3 Multi-Agency Projects

For projects that extend in multiple jurisdictions such as shopping centers or large developments, the Lead Agency should facilitate early coordination with the participating agencies. Examples of transportation-related areas that may require early coordination are assessment of approved projects for Background Conditions, assumptions for the travel demand model, and feasibility of and responsibility for mitigation measures and improvements.

12.4 Projects Generating Large Numbers of Pedestrian, Bicycle or Transit Trips

For projects that generate unusually large volumes of pedestrian, bicycle or transit trips, it may be necessary to include a quantitative analysis of demand and capacity for these modes. Examples of typical land uses that may require a pedestrian, bicycle or transit capacity analysis are arenas and stadiums, special event sites, large mixed-use developments and TODs, and schools.

The transit capacity analysis should consider the existing ridership and load factors of transit routes near the proposed project, which can be obtained by consulting with VTA and other transit operators that may be affected (e.g. Caltrain, ACE, etc.). If the new transit ridership generated by the project causes the load factor of one or more transit routes to exceed the standard established by the applicable transit agency, the project should contribute to transit improvements to enhance the capacity of the affected route or provide alternative facilities.

Projects that generate unusually large pedestrian or bicycle volumes should consider the effects of those volumes on pedestrian or bicycle facilities. VTA recommends using a methodology that accounts for pedestrian and bicycle capacity, spacing, and conflicts, such as the Highway Capacity Manual 2010 methodology (Chapters 16 and 23), or similar methodologies. If the additional bicycle or pedestrian volumes generated by the project would unreasonably degrade conditions on bicycle and pedestrian facilities, the project should contribute to improvements to the conditions of the affected facility or provide alternative facilities.

12.5 Transit Delay Analysis for Large Projects, General Plans and Areawide Plans

Large development projects, General Plan Amendments and updates, and area-wide plans should include a more extensive quantitative analysis of transit delay than the analysis discussed in ***Section 9.2***. VTA recommends using travel demand model data, when available, to estimate transit delay on transit corridors within the project study area. If a travel demand model is not prepared for the project, VTA recommends that transit delay be analyzed based on the methodology discussed in in ***Section 9.2***.

If increased transit vehicle delay is found in this analysis, the Lead Agency should work with VTA to identify feasible transit priority measures near the affected facility and include contributions to any applicable projects that improve transit speed and reliability in the TIA. Refer to ***Section 10.2*** for more information on improvements to address congestion effects on transit travel times.

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APPENDIX A: Sample Freeway Analysis Tables

TABLE A-1: SAMPLE OF FREEWAY ANALYSIS REQUIREMENT DETERMINATION

Freeway	Segment	Direction	Peak Hour	Lanes	Capacity	Project Trips	< 1%
101	Capitol to Tully	NB	AM	3	6600	45	yes
101	Capitol to Tully	NB	PM	3	6600	40	yes
			AM				
			PM				
			AM				
			PM				
			AM				
			PM				
			AM				
			PM				
			AM				
			PM				
			AM				
			PM				
			AM				
			PM				
			AM				
			PM				

TABLE A-2: SAMPLE OF FREEWAY ANALYSIS SUMMARY

Freeway	Segment	Direction	Peak Hour	EXISTING					PROJECT			
				Lanes	Average Speed	Volume	Density	LOS	Project Trips	Density	LOS	% Impact
101	Capitol to Tully	SB	AM	2	45	2500	45.5	D	68	46.5	D	----
101	Capitol to Tully	SB	PM	3	25	4500	65.0	F	85	----	F	1.8%
101	Capitol to Tully	NB	AM									
101	Capitol to Tully	NB	PM									
101	Capitol to Tully	SB HOV	AM	1	----	----	----	----	----	----	----	
101	Capitol to Tully	SB HOV	PM	0								
101	Capitol to Tully	NB HOV	AM	0								
101	Capitol to Tully	NB HOV	PM	1								
			AM									
			PM									
			AM									
			PM									
			AM									
			PM									
			AM									
			PM									
			AM									
			PM									

Note: HOV lanes shall be analyzed if project trips are assigned to the HOV lane. See *TIA Guidelines* for details.

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APPENDIX B: TIA Notification Form

CMP ID: ☐

Congestion Management Program
Transportation Impact Analysis (TIA) NOTIFICATION FORM

Lead Agency: _____

Lead Agency File Number: _____

Project: _____

Project Size (SF or DU): _____

Net New Trips: _____

Project Address: _____

Analysis Periods: _____

Analysis Scenarios: _____

Study Intersections: *(continue in attachment if necessary)* _____

Study Freeway Segments: *(continue in attachment if necessary)* _____

Agency Contact: _____

Telephone: _____

E-mail: _____

Developer: _____

Transportation Consultant: _____

Form Prepared By: _____

Date: _____

This form sent to:

Agency	Name of Person(s)
☐ City of Campbell	
☐ City of Cupertino	
☐ City of Gilroy	
☐ City of Los Altos	
☐ Town of Los Altos Hills	
☐ Town of Los Gatos	
☐ City of Milpitas	
☐ City of Monte Sereno	
☐ City of Morgan Hill	
☐ City of Mountain View	
☐ City of Palo Alto	
☐ City of San Jose	
☐ City of Santa Clara	
☐ City of Saratoga	
☐ City of Sunnyvale	
☐ County of Santa Clara	
☐ Caltrans	
☐ VTA	

* SF=square feet; DU=dwelling units

Note: The Lead Agency is encouraged to submit the draft TIA work scope along with this form when circulating it to other agencies. Comments from interested agencies on the TIA scoping must be received by the Lead Agency within 15 calendar days of the mailing of this TIA Notification Form.

APPENDIX C: Auto Trip Reduction Statement

Introduction

The Auto Trip Reduction Statement is intended to provide a concise summary of automobile trip reduction efforts made by a project. It is intended only as a summary; any automobile trip reductions claimed for the development must be fully documented and justified in the TIA. Lead Agencies must complete an Auto Trip Reduction Statement for all TIAs and include the Statement in the TIA Executive Summary, whether or not trip reductions are claimed. ***Section 8.2*** of the VTA *TIA Guidelines* describes three different approaches to auto trip reduction in TIAs.

The Auto Trip Reduction Statement must describe trip reductions claimed in the trip generation section of the TIA. It may also be used to describe additional trip reduction efforts undertaken in order to mitigate project impacts. A Lead Agency may choose to provide an initial Statement with the reductions that are used in the Project Conditions analysis, and a revised statement with the final reductions reflecting mitigation measures. Examples have been provided of Auto Trip Reduction Statements for typical projects using the Standard, Peer/Study-Based and Target-Based trip reduction approaches.

Brief Guidelines for filling out the Auto Trip Reduction Statement

Project Auto Trip Generation – Specify trip generation methodology (ITE or Other). If "Other" is selected, briefly describe methodology used. Refer to ***Section 8.1*** for more information about trip generation methodologies.

Auto Trip Reduction Approach – Specify the approach taken in the TIA. See section 8.2 for further information about the three approaches.

Standard Approach – List any reductions claimed based on the Standard Reductions described in ***Table 1*** of the *TIA Guidelines*. See ***Section 8.2.1*** for further information.

Peer/Study-Based Approach – Document the project's Peer/Study-Based approach to trip reduction, if applicable (see ***Section 8.2.3***). This approach may be used to justify a trip reduction based on a project's similarity to other projects with demonstrated trip reductions or a project occupant's track record of reducing trips at other sites, or to provide additional justification for trip rates based on local data collection efforts. The "Basis of Reduction" box should note the starting point for the trip reduction claimed, whether starting from ITE auto trip generation rates based on square footage or number of units, or total person-trips based on employee/resident count. The "Total Reduction Claimed" box should also reference the starting point. Note that in some cases the "Total Reduction Claimed" box may not be applicable, depending on the methodology.

Target-Based Approach – Document the project's Target-Based approach, if applicable (see ***Section 8.2.2***). This approach may be taken when the project applicant has entered into an enforceable agreement with the Lead Agency that limits the number of automobile trips traveling to and from the project site. The "Description" should note the starting point for the trip reduction claimed, whether starting from ITE auto trip generation rates based on square footage or number of units, or total person-trips based on employee/resident count. The "Total Reduction Claimed" box should also reference the starting point. Note that in some cases the "Total Reduction Claimed" box may not be applicable, depending on the methodology.

AUTO TRIP REDUCTION STATEMENT

UPDATED: October 2014

SANTA CLARA Valley Transportation Authority

PROJECT INFORMATION	*Relevant TIA Section:*		
Project Name:			
Location:			
Description:			
Size (net new):	*D.U. Residential*	*Sq. Ft. Comm.*	*Acres (Gr.)*
Density:	*D.U. / Acre*		*Floor Area Ratio (FAR)*
Located within 2000 feet walking distance of an LRT, BRT, BART or Caltrain station or major bus stop? Yes/No			

PROJECT AUTO TRIP GENERATION	*Relevant TIA Section:*		
Auto Trips Generated:	*AM Pk Hr*	*PM Pk Hr*	*Total Weekday*
Methodology (check one)	☐ **ITE**	☐ **Other** *(Please describe below)*	
Describe alternative trip generation methodology, if applicable			

AUTO TRIP REDUCTION APPROACH	*Relevant TIA Section:*		
☐ **Standard** *Complete Table A below*	☐ **Peer/Study-Based** *Complete Table B below*	☐ **Target-Based** *Complete Table C below*	☐ **None Taken**

TRIP REDUCTION REQUIREMENTS	*Relevant TIA Section:*	
Is the project required to meet any trip reduction requirements or targets? Yes/No		**If so, specify percent:**
Reference code or requirement:		

TRIP REDUCTION APPROACHES

A. STANDARD APPROACH	*Relevant TIA Section:*			
Type of Reduction *Specify reduction. See Table 2 in TIA Guidelines*		**% Reduction from ITE Rates**	**Total Trips Reduced (AM/PM/Daily)**	**TOTAL REDUCTION CLAIMED**
				% / **Trips**
Transit				Specify AM, PM, and/or Daily reduction / Specify AM, PM, and/or Daily reduction
Mixed-Use				
Financial Incentives				
Shuttle				

B. PEER/STUDY-BASED APPROACH	*Relevant TIA Section:*	
Basis of Reduction	**TOTAL REDUCTION CLAIMED**	
	%	**Trips**
Summarize basis of reduction, addressing: -Data used to justify trip reduction rate -Source(s) referenced -Assumptions and methodologies used to develop the trip reduction -How the trip reduction rate is appropriate for the proposed development	Specify AM, PM, and/or Daily reduction	Specify AM, PM, and/or Daily reduction

C. TARGET-BASED APPROACH			Relevant TIA Section:			
Type of Reduction (check all that apply)					TOTAL REDUCTION CLAIMED	
❒ % Trip Reduction	❒ % SOV mode share		❒ Trip Cap		%	Trips
If checked, state reduction here	If checked, state reduction here		If checked, state cap here		Specify AM, PM, and/or Daily reduction	Specify AM, PM, and/or Daily reduction
Description	e.g., ITE auto trip generation rates based on square footage or number of units, total person-trips based on employee/resident count					
Time period for reduction	Peak Hour		Peak Period	Full Day		
	❒ AM/PM		❒ AM/PM	❒		

OTHER TDM/REDUCTION MEASURES			
Bicycle/Pedestrian	Yes/No	Relevant TIA Section:	
Describe any bicycle/pedestrian improvements related to the project. Note both infrastructure (improvements to sidewalks, bicycle facilities, etc.) and programs (subsidies, bike share, etc.)			
Parking Management	Yes/No	Relevant TIA Section:	
Describe any parking management strategies that would lead to reduced auto trips, such as parking pricing, parking cash-out, unbundled parking, etc.			
Transit	Yes/No	Relevant TIA Section:	
Describe any transit service or access improvements that would lead to reduced auto trips, such as improved pedestrian connections to transit, added shuttle service, etc.			
Site Planning and Design	Yes/No	Relevant TIA Section:	
Describe features of the site plan and design of the project that encourage walking, biking, and transit use, while discouraging solo automobile trips.			
TDM Program	Yes/No	Relevant TIA Section:	
Describe any other TDM program elements at the site, such as: carpool/vanpool programs, emergency ride home service, trip planning, on- site mobile services, etc.			

IMPLEMENTATION		Relevant TIA Section:	
Have the project sponsor and Lead Agency agreed to any of the following measures?			
❒ Monitoring	Describe.		
❒ Enforcement	Describe.		
❒ Data Sharing	Describe.		

Example: Standard Reduction Approach

AUTO TRIP REDUCTION STATEMENT

UPDATED: October 2014

SANTA CLARA Valley Transportation Authority

PROJECT INFORMATION		*Relevant TIA Section:*	Chapter 2: Project Description
Project Name: Baytown Apartment Complex			
Location: Baytown, CA			
Description: Construct 250 apartment units on a 5-acre vacant site. Main complex entrance located 1,250 feet walking distance from Baytown Light Rail Station.			
Size (net new):	250 *D.U. Residential*	*Sq. Ft. Comm.*	*Acres (Gr.)*
Density:	50 *D.U. / Acre*		*Floor Area Ratio (FAR)*
Located within 2000 feet walking distance of an LRT, BRT, BART or Caltrain station or major bus stop?			Y

PROJECT AUTO TRIP GENERATION		*Relevant TIA Section:*	Chapter 2: Project Description
Auto Trips Generated:	126 *AM Pk Hr*	155 *PM Pk Hr*	1639 *Total Weekday*
Methodology (check one)	✓ **ITE**	❒ **Other** *(Please describe below)*	
Describe alternative trip generation methodology, if applicable			

AUTO TRIP REDUCTION APPROACH	*Relevant TIA Section:*	Chapter 2: Project Description	
✓ **Standard** *Complete Table A below*	❒ **Peer/Study-Based** *Complete Table B below*	❒ **Target-Based** *Complete Table C below*	❒ **None Taken**

TRIP REDUCTION REQUIREMENTS	*Relevant TIA Section:*	
Is the project required to meet any trip reduction requirements or targets?		N
If so, specify percent:	**Reference code or requirement:**	

TRIP REDUCTION APPROACHES

A. STANDARD APPROACH		*Relevant TIA Section:*	Chapter 2: Project Description		
Type of Reduction *Specify reduction. See Table 2 in TIA Guidelines*		**% Reduction from ITE Rates**	**Total Trips Reduced (AM/PM/Daily)**	**TOTAL REDUCTION CLAIMED**	
				%	**Trips**
Transit	*Proximity to LRT (within 2000 ft walk)*	9.0%	11/14/148	9.5%	AM - 12 PM - 15 Daily - 156
Mixed-Use					
Financial Incentives	*Unbundled Parking*	0.50%	1/1/8		
Shuttle					

B. PEER/STUDY-BASED APPROACH	*Relevant TIA Section:*		
Basis of Reduction		**TOTAL REDUCTION CLAIMED**	
		%	**Trips**
Summarize basis of reduction, addressing: • *Data used to justify trip reduction rate* • *Source(s) referenced* • *Assumptions and methodologies used to develop the trip reduction* • *How the trip reduction rate is appropriate for the proposed development*		*Specify AM, PM and/or Daily reduction*	*Specify AM, PM and/or Daily reduction*

EXAMPLE

Example: Standard Reduction Approach

C. TARGET-BASED APPROACH		Relevant TIA Section:		
Type of Reduction (check all that apply)			**TOTAL REDUCTION CLAIMED**	
❒ **% Trip Reduction**	❒ **% SOV mode share**	❒ **Trip Cap**	**%**	**Trips**
If checked, state % reduction here	*If checked, state % reduction here*	*If checked, state cap here*	*Specify AM, PM and/or Daily reduction*	*Specify AM, PM and/or Daily reduction*
Description	*e.g., ITE auto trip generation rates based on square footage or number of units, total person-trips based on employee/resident count*			
Time period for reduction	**Peak Hour**	**Peak Period**	**Full Day**	
	❒ *Specify AM, PM or both*	❒ *Specify AM, PM or both*	❒	

OTHER TDM/REDUCTION MEASURES			
Bicycle/Pedestrian	Y	***Relevant TIA Section:***	Chapter 7: Multimodal Evaluation
- Fill sidewalk gaps on south side of project site - Pedestrian and bicycle crossing improvements at adjacent intersections: bicycle detector loops, high-visibility ladder crosswalks - Bicycle parking: 85 spaces in locked section of garage, 20 outdoor spaces near building entrances			
Parking Management	Y	***Relevant TIA Section:***	Chapter 9: TDM Plan
- Unbundled parking: First parking space included in rent, $300/month for second parking space			
Transit	N	***Relevant TIA Section:***	
Site Planning and Design	Y	***Relevant TIA Section:***	Chapter 8: Site Access and Circulation
- Building entrance oriented to face street, with small public plaza - Mixed use pedestrian and bicycle paths within site to connect buildings			
TDM Program	Y	***Relevant TIA Section:***	Chapter 9: TDM Plan
- On-site transit and alternative travel information kiosk - Unbundled parking as noted above			

IMPLEMENTATION	Relevant TIA Section:	
Have the project sponsor and Lead Agency agreed to any of the following measures?		
❒ **Monitoring**	*Describe.*	
❒ **Enforcement**	*Describe.*	
❒ **Data Sharing**	*Describe.*	

EXAMPLE

Example: Peer/Study-Based Reduction Approach

AUTO TRIP REDUCTION STATEMENT

UPDATED: October 2014

SANTA CLARA Valley Transportation Authority

PROJECT INFORMATION	*Relevant TIA Section:*	Chapter 2: Project Description
Project Name: Technology Office Expansion		
Location: Techville, CA		
Description: Replace 1.4 Million SF of office space in one building with 1.5 Million SF of office in one building and 620 KSF of R&D space in another building, on a 49-acre site.		

Size (net new):	*D.U. Residential*	720,000 *Sq. Ft. Comm.*	*Acres (Gr.)*
Density:	*D.U. / Acre*	1.0 *Floor Area Ratio (FAR)*	
Located within 2000 feet walking distance of an LRT, BRT, BART or Caltrain station or major bus stop?			N

PROJECT AUTO TRIP GENERATION	*Relevant TIA Section:*	Chapter 3: Trip Generation and Distribution	
Auto Trips Generated:	1,316 *AM Pk Hr*	1,358 *PM Pk Hr*	14,769 *Total Weekday*
Methodology (check one)	❒ **ITE**	✓ **Other** *(Please describe below)*	
Driveway counts at existing 1.4 Million sf office space were used to calculate per-employee trip rates. These rates were multiplied by net new employees projected for the new office space.			

AUTO TRIP REDUCTION APPROACH	*Relevant TIA Section:*	Chapter 3: Trip Generation and Distribution	
❒ **Standard** *Complete Table A below*	✓ **Peer/Study-Based** *Complete Table B below*	❒ **Target-Based** *Complete Table C below*	❒ **None Taken**

TRIP REDUCTION REQUIREMENTS	*Relevant TIA Section:*	
Is the project required to meet any trip reduction requirements or targets?		N
If so, specify percent:	**Reference code or requirement:**	

TRIP REDUCTION APPROACHES

A. STANDARD APPROACH	*Relevant TIA Section:*			
Type of Reduction *Specify reduction. See Table 2 in TIA Guidelines*		**% Reduction from ITE Rates**	**Total Trips Reduced (AM/PM/Daily)**	**TOTAL REDUCTION CLAIMED**
				% / **Trips**
Transit				*Specify AM, PM and/or Daily reduction* / *Specify AM, PM and/or Daily reduction*
Mixed-Use				
Financial Incentives				
Shuttle				

B. PEER/STUDY-BASED APPROACH	*Relevant TIA Section:*	Chapter 3: Trip Generation and Distribution	
Basis of Reduction		**TOTAL REDUCTION CLAIMED**	
		%	**Trips**
Trip generation studies were conducted at the existing campus. The rates used in the TIA are based on number of employees rather than building square footage and assume that Technology Employer's existing TDM program will be expanded to the expanded campus.		30% non-SOV mode share for all AM and PM peak hour trips	

EXAMPLE

Example: Peer/Study-Based Reduction Approach

C. TARGET-BASED APPROACH			*Relevant TIA Section:*		
Type of Reduction (check all that apply)				**TOTAL REDUCTION CLAIMED**	
❒ **% Trip Reduction**	❒ **% SOV mode share**	❒ **Trip Cap**		**%**	**Trips**
If checked, state % reduction here	*If checked, state % reduction here*	*If checked, state cap here*		*Specify AM, PM and/or Daily reduction*	*Specify AM, PM and/or Daily reduction*
Description	*e.g., ITE auto trip generation rates based on square footage or number of units, total person-trips based on employee/resident count*				
Time period for reduction	**Peak Hour**	**Peak Period**	**Full Day**		
	❒ *Specify AM, PM or both*	❒ *Specify AM, PM or both*	❒		

OTHER TDM/REDUCTION MEASURES			
Bicycle/Pedestrian	Y	***Relevant TIA Section:***	Chapter 9: Multimodal Evaluation
- Improve off-campus bicycle facilities: Connect bicycle lanes on Woodland Lane to campus main entrance - Construct curb extensions at intersection of Woodland Lane and Techville Avenue (at corner of site) to shorten pedestrian crossing distance - Bike lockers (275) in parking garage, 75 short-term bicycle parking spaces outside main entrance			
Parking Management	N	***Relevant TIA Section:***	
Describe any parking management strategies that would lead to reduced auto trips, such as parking pricing, parking cash-out, unbundled parking, etc.			
Transit	Y	***Relevant TIA Section:***	Chapter 9: Multimodal Evaluation
- Long-distance private commuter shuttles - Financial contribution to shuttle service to nearest Caltrain station (Downtown Techville) - Transit subsidy for commuters: VTA Eco Pass and Caltrain Go Pass provided at no cost on ongoing basis			
Site Planning and Design	Y	***Relevant TIA Section:***	Chapter 10: Site Access and Circulation
- Parking located far from work areas to discourage driving for commuting - Long-distance commuter shuttle and Caltrain shuttle pick-up and drop-off at main building entrance			
TDM Program	Y	***Relevant TIA Section:***	Chapter 11: TDM Plan
- Carpool matching service provided to all employees - Flexible work schedules and telecommuting encouraged as company policy - On-site amenities (free cafeteria, coffee stand, dry cleaning pick-up and drop-off)			

IMPLEMENTATION		***Relevant TIA Section:***	Chapter 11: TDM Plan
Have the project sponsor and Lead Agency agreed to any of the following measures?			
✓ **Monitoring**	Annual monitoring via driveway surveys and employee TDM surveys will be conducted by outside consultants and reported to City of Techville.		
❒ **Enforcement**			
✓ **Data Sharing**	City of Techville will share annual monitoring reports with VTA after staff approval of reports.		

EXAMPLE

Example: Target-Based Reduction Approach

AUTO TRIP REDUCTION STATEMENT

UPDATED: October 2014

SANTA CLARA Valley Transportation Authority

PROJECT INFORMATION	*Relevant TIA Section:*	Chapter 3: Project Description
Project Name: Large Company Campus Expansion		
Location: Treeview, CA		
Description: Redevelop 9 acre site into two office buildings totalling 470,000 sf of office with structured parking, to replace four existing buildings totalling 123,000 sf of office space and surface parking, resulting in 347,000 sf of net new growth.		

Size (net new):	*D.U. Residential*	347,000 *Sq. Ft. Comm.*	*Acres (Gr.)*
Density:	*D.U. / Acre*	1.2 *Floor Area Ratio (FAR)*	
Located within 2000 feet walking distance of an LRT, BRT, BART or Caltrain station or major bus stop?			Y

PROJECT AUTO TRIP GENERATION	*Relevant TIA Section:*	Chapter 3: Project Description	
Auto Trips Generated:	507 *AM Pk Hr*	467 *PM Pk Hr*	3,477 *Total Weekday*
Methodology (check one)	✓ **ITE**	❐ **Other** *(Please describe below)*	
Describe alternative trip generation methodology, if applicable			

AUTO TRIP REDUCTION APPROACH	*Relevant TIA Section:*	Chapter 3: Project Description	
❐ **Standard** *Complete Table A below*	❐ **Peer/Study-Based** *Complete Table B below*	✓ **Target-Based** *Complete Table C below*	❐ **None Taken**

TRIP REDUCTION REQUIREMENTS	*Relevant TIA Section:*	Chapter 2: Existing Conditions
Is the project required to meet any trip reduction requirements or targets?		Y
If so, specify percent: Daily - 20%, Peak Hour - 30%	**Reference code or requirement:** Treeview Business Park Specific Plan (2013)	

TRIP REDUCTION APPROACHES

A. STANDARD APPROACH	*Relevant TIA Section:*			
Type of Reduction *Specify reduction. See Table 2 in TIA Guidelines*		**% Reduction from ITE Rates**	**Total Trips Reduced (AM/PM/Daily)**	**TOTAL REDUCTION CLAIMED**
				% / **Trips**
Transit				*Specify AM, PM and/or Daily reduction* / *Specify AM, PM and/or Daily reduction*
Mixed-Use				
Financial Incentives				
Shuttle				

B. PEER/STUDY-BASED APPROACH	*Relevant TIA Section:*		
Basis of Reduction			**TOTAL REDUCTION CLAIMED**
Summarize basis of reduction, addressing:			**%** / **Trips**
• *Data used to justify trip reduction rate* • *Source(s) referenced* • *Assumptions and methodologies used to develop the trip reduction* • *How the trip reduction rate is appropriate for the proposed development*			*Specify AM, PM and/or Daily reduction* / *Specify AM, PM and/or Daily reduction*

EXAMPLE

Example: Target-Based Reduction Approach

C. TARGET-BASED APPROACH			Relevant TIA Section:	Chapter 3: Project Description	
Type of Reduction (check all that apply)				TOTAL REDUCTION CLAIMED	
✓ % Trip Reduction	❒ % SOV mode share		❒ Trip Cap	%	Trips
Daily - 20%, Peak Hour - 30%	*If checked, state % reduction here*		*If checked, state % reduction here*	AM: -30% PM: - 30% Daily: -20%	AM: - 152 PM: - 467 Daily: - 695
Description	Target reduction based on ITE trip generation estimates for Large Company site. Reduction taken in compliance with Treeview Business Park Specific Plan (2013).				
Time period for reduction	**Peak Hour**	**Peak Period**	**Full Day**		
	Both		Yes		

OTHER TDM/REDUCTION MEASURES			
Bicycle/Pedestrian	Y	Relevant TIA Section:	Chapter 8: Multimodal Evaluation
- Improving project's street frontage with wider sidewalks and landscape buffer with street trees to help offset effect of increased auto traffic - Bike lockers (58), showers (2), pumps and tools provided in bicycle center (Building A), plus mobile bicycle repair services 1x/week - Free bike share program for employees traveling between buildings and within Treeview Business Park			
Parking Management	N	Relevant TIA Section:	
Describe any parking management strategies that would lead to reduced auto trips, such as parking pricing, parking cash-out, unbundled parking, etc.			
Transit	Y	Relevant TIA Section:	Chapter 8: Multimodal Evaluation
- Vanpool service provided to all employees - FreeCaltrain and VTA passes provided to employees on an ongoing basis			
Site Planning and Design	Y	Relevant TIA Section:	Chapter 7: Site Circulation and Access
- Multi-use paths between buildings designed to encourage bicycle and pedestrian travel on campus			
TDM Program	Y	Relevant TIA Section:	Chapter 8: TDM Program
- Carpool matching provided for all employees - Telecommuting encouraged - Guaranteed ride home program			

IMPLEMENTATION	Relevant TIA Section:	Chapter 8: TDM Program
Have the project sponsor and Lead Agency agreed to any of the following measures?		
✓ **Monitoring**	Monitoring agreement with City of Treeview: quarterly trip generation monitoring via driveway counts for first two years of full occupancy; annual monitoring thereafter.	
✓ **Enforcement**	City of Treeview will assess a $1000 per-trip fee for vehicle trips that exceed peak hour or daily trip generation estimated in TIA.	
✓ **Data Sharing**	Monitoring reports will be made available to VTA after City of Treeview staff approval.	

EXAMPLE

APPENDIX D: Alternative Trip Generation Resources

Introduction

Chapter 8 of the *TIA Guidelines* presents several trip generation methodologies that may be appropriate for development projects in Santa Clara County. Typically, Lead Agencies rely on trip generation rates published by the Institute of Transportation Engineers (ITE). In some cases, however, the published ITE trip generation rates are based on very limited data. There are at least four cases in which the Lead Agency should consider using use alternative sources for trip generation rates:

- When ***ITE data is insufficient*** (e.g. small sample size, not statistically valid);
- When a project's ***specific land use*** is not covered by the ITE manual or is known to show trip generation characteristics that differ from the categories covered in the ITE manual;
- When the ***land use context***, such as high-density infill or development adjacent to transit, is not addressed by the ITE manual;
- When the project includes a mix of land uses (***mixed-use development*** type).

Professional judgment should always be used when selecting a trip generation methodology. When using trip rates from any of the alternate trip generation methodologies identified in ***Chapter 8*** and in this appendix, the Lead Agency shall include in the TIA Report a full description of the trip generation methodology used and a summary of all inputs and assumptions.

This appendix includes information on the research and practice basis of several alternative trip generation methodologies identified in the *TIA Guidelines*. ***Table D-1***, next page, provides an overview of trip generation methods and tools identified in the *TIA Guidelines.* The following pages present profiles that may be helpful to Lead Agencies selecting between methodologies.

TABLE D-1: SUMMARY OF TRIP GENERATION METHODOLOGIES AND TOOLS

Tool/ Method	Tool Type	Project Type/ Context	Validation Locations	Level of Effort	Outputs	Notes
City of San José	Rate Table and Guidelines	Typically used for projects in San Jose	National, San Diego, Other	Low	N/A	For alternative rates, seek approval from City of San Jose staff
NCHRP 684	Spreadsheet tool	Mixed use developments	Georgia and Texas	High	• Internal trip capture • External trip mode split • AM peak, PM peak, and Daily periods	Recommended for developments of up to 300 acres; not recommended for larger developments, suburban activity centers or new towns
EPA MXD	Spreadsheet tool	Mixed use developments	National with a California emphasis	High	• Internal trip capture • External trip mode split • AM peak, PM peak, and Daily periods	Sensitive to 7D's (land use characteristics); combined MXD/NCHRP 684 model has been adapted for use in several TIAs in Santa Clara County
SANDAG MXD	Trip Generation table with Spreadsheet tool	Site within a Priority Development Area	San Diego	High	• Internal trip capture • External trip mode split • AM peak, PM peak, and Daily periods	This was developed for "Smart Growth Opportunity Areas" in San Diego, but may be appropriate for use in the Priority Development Areas in Santa Clara County.
CalEEMod	Model with option to adjust rates	Air quality analysis for any site	California	Med.	• Criteria pollutant and greenhouse gas (GHG) emissions	Required by BAAQMD for air quality analysis. Not recommended as primary source for trip generation, but may be useful as supplemental resource for justification of trip reductions.

TABLE D-1: SUMMARY OF TRIP GENERATION METHODOLOGIES AND TOOLS

Tool/ Method	Tool Type	Project Type/ Context	Validation Locations	Level of Effort	Outputs	Notes
MTC STARS	Mode share tables	Site within 1/2 to 1 mile of rail or ferry stops	San Francisco Bay Area	Low	N/A	May be a resource to help justify a reduction in trip generation rates based on non-auto mode share data.
Caltrans/ UC Davis	Spreadsheet tool	Single use sites within smart growth areas	California	Low	• Reduction to ITE rate • Adjustment can be applied to AM peak, PM peak, and Daily rates	For use only with a single land use that is part of a multi-use site, and only at sites located in smart-growth areas. Other limitations may apply – see documentation.

Methodology Profiles

City of San José Trip Generation Rates

The City of San Jose maintains a *Traffic Impact Analysis Handbook* which includes a set of trip generation rates based on the Institute of Transportation Engineers (ITE) *Trip Generation* report, San Diego *Traffic Generators*, data from other agencies and publications, reports and estimates. ITE rates and rates obtained through surveys of similar land uses may also be used when appropriate. The trip generation rates provided in the tables do not account for mixed use environments or proximity to transit, however the City of San Jose *TIA Handbook* allows for standard reductions to trip generation using the VTA methodology included in VTA *TIA Guidelines.* The City of San Jose has final authority to approve the trip generation rates used in the TIA analysis.

- City of San Jose. *Traffic Impact Analysis Handbook. 2009.* San Jose, California: Author. *https://www.sanjoseca.gov/DocumentCenter/View/4366*

NCHRP 684 – Enhancing Internal Trip Capture Rate for Mixed-Use Development

The National Cooperative Highway Research Program (NCHRP) Report 684, *Enhancing Internal Trip Capture Estimation for Mixed-Use Developments*, analyzed the internal-capture relationships of mixed use sites and examined the travel interactions among six individual types of land uses: office, retail, restaurant, residential, cinema, and hotel. The study looked at three master-planned developments in Georgia and Texas to ascertain the interactions among these six land use types within each of the sites. The study considered site context factors and described percentage reductions in site-wide traffic generation that might result from the availability of transit service and other factors. Researchers then verified analysis results by comparing them to trip generation for three earlier ITE studies at Florida mixed use sites. The validation confirmed that the estimated values were a reasonable match for observed traffic. The interaction percentages among the land use types are then used to discount ITE trip-generation rates by the number of trips that would remain internal to the project site due to the presence of multiple land uses.

The tool provides peak period trips and requires the user to input mode split, vehicle occupancy by land use, and distance between land uses. Researchers recommend its use for developments of up to 300 acres, but do not recommend use of this method for larger developments, suburban activity centers or new town types of development. This method could be used for mixed-use developments in an urban context, including station area plans or transit oriented developments. Recently findings from this study and the MXD tool developed by EPA were combined into one comprehensive tool – MXD+. (See below.)

- National Cooperative Highway Research Program. (2011). *NCHRP Report 684: Enhancing Internal Trip Capture Estimation for Mixed-Use Developments*. 2011. Washington, D.C.: Transportation Research Board, National Research Council. *http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_684.pdf*
- Walters, J., B. Bochner, R. Ewing. (2013). Getting Trip Generation Right: Eliminating the Bias Against Mixed Use Development. *American Planning Association: Planning Advisory Service Report, May 2013.* Chicago, Illinois: American Planning Association. *http://asap.fehrandpeers.com/wp-content/uploads/2012/05/APA_PAS_May2013_GettingTripGenRight.pdf*

MXD Model – US EPA

This spreadsheet tool is based on a robust national sample of 239 mixed-use developments in six metro areas and has been validated at 40 sites, mostly in California. The tool applies elasticities for transportation behavior response to land-use variables from peer-reviewed literature. It is sensitive to 7 "D's" factors: density, diversity, design, distance from transit, destination accessibility, development scale, and demographics. More recently, a tool has been developed that combines the EPA MXD model with the National Cooperative Highway Research Program Report 684 (see above). The combined EPA/NCHRP MXD model has been adapted for use in several transportation impact analysis studies in Santa Clara County, including the Apple Campus II EIR, the Lawrence Station Area Plan for the City of Sunnyvale, as well as a number of impact analysis projects in other Bay Area counties.

- Ewing, et al. (2011). Traffic Generated by Mixed-Use Developments – A Six Region Study Using Consistent Built Environment Measures. Washington, D.C.: United States Environmental Protection Agency. *http://www.epa.gov/dced/mxd_tripgeneration.html*
- Walters, J., B. Bochner, R. Ewing. (2013). Getting Trip Generation Right: Eliminating the Bias Against Mixed Use Development. *American Planning Association: Planning Advisory Service Report, May 2013.* Chicago, Illinois: American Planning Association. *http://asap.fehrandpeers.com/wp-content/uploads/2012/05/APA_PAS_May2013_GettingTripGenRight.pdf*
- Alameda County Transportation Commission. (2013). *2013 Congestion Management Program Update. Appendix K.* Oakland, California: Author. *http://www.alamedactc.org/app_pages/view/5224*

SANDAG Traffic Generation Manual & Trip Generation for Smart Growth

The San Diego Association of Governments (SANDAG) published the *San Diego Traffic Generators Manual* in 2000, which includes trip generation rates based on traffic counts collected at four to seven sites for each land use category provided within the manual. In 2010, SANDAG released *Trip Generation for Smart Growth: Planning Tools for the San Diego Region* as a supplement to the manual in order to provided reductions for mixed use that accounted for the specific context of a site.

The study resulted in a spreadsheet tool which is based on the MXD tool developed for EPA (see above), but modified for use by SANDAG. The study validated the MXD tool for use within the San Diego region by comparing the method's trip generation estimates to actual travel data from twenty of the region's Smart Growth Opportunity Areas (SGOAs) and six smaller mixed-use/transit-oriented development (TOD) sites. Travel data for a representative group of SGOAs was compiled from the SANDAG 2006 Regional Household Travel Behavior Survey and 24 hour counts were conducted for use in the study. Based on observed data, the MXD tool was an excellent predictor of external vehicle trips generated by smart growth development. SANDAG's SGOAs are similar to Priority Development Areas (PDAs) as planned for in the San Francisco Bay Area's Regional Transportation Plan and Sustainable Communities Strategy, or *One Bay Area* Plan. This tool could be useful for developments within PDAs as it has been refined for this type of focused growth.

- San Diego Association of Governments. (2010). *Trip Generation for Smart Growth: Planning Tools for the San Diego Region.* San Diego, California: Author. *http://www.sandag.org/index.asp?projectid=334&fuseaction=projects.detail*

CalEEMod – CAPCOA/BAAQMD

The California Emissions Estimator Model (CalEEMod) was released by the California Air Pollution Control Officers Association (CAPCOA) and is used by the Bay Area Air Quality Management District (BAAQMD) for determining air quality conformity. The tool calculates vehicle trips and vehicle miles traveled (VMT) in order to estimate air pollution and greenhouse gas emissions arising from development. ITE *Trip Generation* (8th Edition) trip generation rates are used as default in the program, although users have the option to manually add rates. Trip types are broken down by residential and commercial trips. Residential trips include home-work, home-shopping and home-other trips. The trip type breakdown is from the 1999 Caltrans Statewide Travel Survey; however, users can overwrite these inputs if sufficient justification for alternative sources of data (e.g., project-specific traffic study) can be provided. The tool also identifies a number of mitigation measures that can be chosen by the user, such as changes to land use, parking policies, transportation systems management and transportation demand management that can be used to reduce the resulting VMT. It should be noted, however, that the CalEEMod trip model does not produce detailed trip generation estimates or output reductions to vehicle trips, but rather reductions to VMT. The tool may be therefore be most appropriate for analyses that primarily examine VMT rather than peak-hour trip generation.

- California Air Pollution Control Officers Association (CAPCOA). (2013). *California Emissions Estimator Model Users Guide.* http://www.caleemod.com/

Station Area Resident Survey – MTC

The Metropolitan Transportation Commission (MTC) Station Area Residents Survey (STARS) was conducted in 2006. It characterizes the demographic and travel characteristics of transit station area residents in the San Francisco Bay Area. A GIS analysis was conducted using county-level results from the 2000 *Bay Area Travel Survey* to group residents based on population density and their proximity to rail or ferry stations. MTC's website provides tables showing mode split by population densities and proximity to rail and ferry stops. The STARS tables can be used to help justify a reduction in trip generation rates based on actual survey data for Santa Clara County that shows residents near transit have higher non-auto mode shares.

- Metropolitan Transportation Commission (MTC). (2006). *Characteristics of Rail and Ferry Station Area Residents in the San Francisco Bay Area: Evidence from the 200 Bay Area Travel Survey.* Oakland, California: Author. http://www.mtc.ca.gov/planning/smart_growth/stars/
- Alameda County Transportation Commission. (2013). *2013 Congestion Management Program Update. Appendix K.* Oakland, California: Author. http://www.alamedactc.org/app_pages/view/5224

California Smart Growth Trip Generation Tool – Caltrans/UC Davis

This spreadsheet tool provides ITE rate adjustment factors based on a database of vehicle trip counts and site/context data for a sample of 50 smart growth sites in California. The tool can be used for daily or peak rates. The tool was validated at 11 mixed-use sites for the AM peak period and 13 mixed-use sites for the PM peak period. Rates are based on density, land use mixture, regional location, transit service, and parking. The research team defined specific criteria that should be met in order to apply the model, which can be found in the *California Smart-Growth Trip Generation Rates Study* report cited below. Resulting models are only appropriate for

analysis for a single land use that is part of a multi-use site, and only at sites located in smart-growth areas. (UCSD, 2013 p. 10) For example, for residential development analysis, the input for the tool is the number of dwelling units for an entire residential-only site or targeted residential use within a multi-use building or multi-use site.

- University of California, Davis for the California Department of Transportation. (2013). *California Smart-Growth Trip Generation Rates Study.* *http://ultrans.its.ucdavis.edu/projects/smart-growth-trip-generation*
- Alameda County Transportation Commission. (2013). *2013 Congestion Management Program Update. Appendix K.* *http://www.alamedactc.org/app_pages/view/5*

APPENDIX E: ITE Methodology for Applying Pass-By and Diverted Linked Trip Reductions

ITE Methodology for Applying Pass-by and Diverted Linked Trip Reductions

The Institute of Transportation Engineers methodology for applying pass-by and diverted linked trip reductions should be used in TIAs and is summarized below.[1]

1. Obtain peak hour traffic volumes passing the project site driveway(s) in both directions for a two-way street or the travel direction on a one-way street.

2. Obtain driveway volumes entering and exiting the site. The driveway volumes are determined from the project size and trip rates.

3. For each driveway, calculate the number of pass-by and diverted linked trips by multiplying the total number of project trips by the appropriate reduction percentage. (Other methods may be used to determine the reduction. See Chapter VII of ITE's *Trip Generation* report.) *Note that reductions for pass-by trips often differ from those for diverted linked trips*.

4. Determine the trip distribution on roadways adjacent to the site for pass-by trips, and determine the trip distribution on roadways that would be used by diverted linked trips.

5. Determine pass-by and diverted linked trip distribution based on the volume of traffic passing the driveway in both directions.

6. Assign pass-by and diverted linked trip volumes to the driveway based on the distributions calculated in Step 5 above. These trips should also be analyzed on the street system to accurately reflect the turning movements necessary to access the site.

Figure C-1 illustrates the application of the pass-by trip methodology. Diverted linked trips are not included in this example but should be analyzed in TIAs. In ***Figure C-1***, the 50 pass-by trips should be examined in the context of the turning movements already handled by existing facilities. For example, can the existing left turn pockets and/or signal timing accommodate the eight additional U-turns added by the project?

[1] Institute of Transportation Engineers, *Trip Generation Handbook*, 2nd Edition, 2004, Chapter 5, pp. 29-82.

Figure C-1: Application of Pass-by Trips

(Note: Diverted linked trips are not included in this example but should be analyzed in TIAs.)

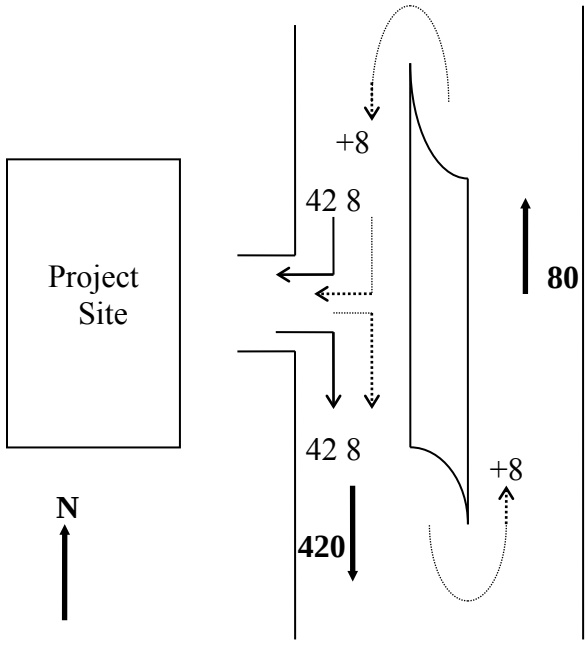
Base Peak Hour Traffic Volumes on Street
420 VPH Southbound
80 VPH Northbound

Total Project Trips
200 VPH In
200 VPH Out

Pass-by Trips = 25%
50 VPH In
50 VPH Out

Based on Base Volumes (84% SB, 16% NB)
Southbound Pass-by Trips = 42 VPH
Northbound Pass-by Trips = 8 VPH

KEY
____ Southbound Pass-by Trips
____ Northbound Pass-by Trips



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APPENDIX F: Transit Delay Analysis Resources

Introduction

To provide a more meaningful and relevant analysis of project effects on transit service, the 2014 *TIA Guidelines* shifted a portion of the transit analysis requirements from a capacity-based to a delay-based approach for most projects. The *TIA Guidelines* require basic analysis of project effects on transit vehicle delay and on transit access and facilities near the project site. For large or unique projects that are likely to generate high numbers of transit trips, the *Guidelines* recommend a transit capacity analysis as well as the delay analysis. The following section provides additional information on the research and professional practice basis of the transit delay analysis requirement.

Transit Delay Analysis Overview and Methodology

Current research thoroughly documents the impacts of roadway congestion on transit performance. Traffic congestion has negative impacts on bus travel time and service reliability (McKnight et al. 2003) (Perk et al. 2008).This congestion also leads to higher operational costs for the transit provider due to more vehicle hours in service for the transit vehicle (McKnight et al. 2003).

To date, some Transportation Impact Analysis (TIA) reports in Santa Clara County have examined transit delay as part of the analysis of a proposed land use development or general planning effort.

The Apple Campus II TIA (2013) examines transit delay due to increased traffic from the proposed development. The TIA found that project traffic will result in increased congestion at intersections, which will increase travel time for transit vehicles. The project is also likely to indirectly increase transit ridership. This is due to the conversion of current auto trips in the project area to transit trips to avoid increased roadway congestion. Near the project site, this will affect bus routes traveling in the vicinity. To mitigate this impact, the TIA proposed improving amenities at bus stops near the project site by adding elements such as shelters, benches, and lighting.

The San Antonio Village Phase II TIA (2014) also examines transit delay due to increased traffic from future development. The TIA found that the project will increase congestion on the surrounding roadway network, which will also increase travel time for transit vehicles. Intersection capacity improvements are proposed to mitigate impacts due to project traffic; these capacity improvements will also benefit transit vehicles. Transportation Demand Management (TDM) policies for the project will also reduce the number of trips during the peak hour, which will further reduce impacts due to project traffic on the roadway network used by transit.

In addition to being evaluated in published TIA Reports, transit delay analysis is required or encouraged in several technical guidelines and policy documents in the San Francisco Bay Area, notably Alameda County *TIA Technical Guidelines* and the City of San Jose's General Plan.
The Alameda County Transportation Commission has a requirement for analyzing transit delay as part of its *2013 Congestion Management Program TIA Technical Guidelines*. This requirement states that "The analysis should evaluate if vehicle trips generated by the project will

cause congestion that degrades transit vehicle operations. Analysis may be qualitative and may be based on auto traffic circulation analysis."

The *Envision San Jose 2040 Plan*, published by the City of San Jose in 2011, is a General Plan for development and smart growth in the City. The plan provides goals and policies for many different aspects of development, including land use and transportation. In the Environmental Impact Report for the plan, the City analyzed the effects of future proposed growth in the plan on transit travel times and speeds along 14 key corridors, referred to as "Grand Boulevards." These key corridors connect city neighborhoods and serve as primary routes for public transit vehicles. Transit vehicles are given priority in the roadway design over automobiles, trucks, and other vehicles. The plan also details what transit impacts would be considered significant, including when they would:

- Disrupt existing, or interfere with planned transit services or facilities;
- Cause the average speed on a transit priority corridor (referred to as a Grand Boulevard in the General Plan Update's Draft Circulation Element) to drop below 15 mph or decrease by 25% or more during the AM peak hour; or.
- Cause a transit priority corridor with an existing average speed below 15 mph to decrease by one mph or more during the AM peak hour.

A TIA in the City of San Jose could implement these policies by evaluating delay to transit vehicles as a result of project-related congestion.

References

- Alameda County Transportation Commission. (2013). *Congestion Management Program 2013.* Oakland, California: Author.
- City of San Jose. (2011). *Program Environmental Impact Report for the Envision San Jose 2040 General Plan.* San Jose, California: Author.
- McKnight, C. E., H. S. Levinson, K.. Ozbay, C. Kamga, R. E. Paaswell. (2003). *Impact of Congestion on Bus Operations and Costs.* New York City: Region 2 University Transportation Research Center.
- Perk, V., J. Flynn, J. Volinski. (2008). *Transit Ridership, Reliability, and Retention.* Tampa, Florida: National Center for Transit Research.

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APPENDIX G: Pedestrian and Bicycle Quality of Service Analysis Resources

Introduction

To provide a more meaningful and relevant analysis of project effects on pedestrian and bicycle conditions, the 2014 *TIA Guidelines* shifted a portion of the pedestrian and bicycle analysis requirements from a capacity-based to a Quality of Service (QOS)-based approach for most projects. For large or unique projects that are likely to generate high numbers of pedestrian or bicycle trips, the *Guidelines* recommend a capacity analysis as well as the QOS analysis.

For additional detail on bicycle and pedestrian analysis, refer to ***Chapter 5***, ***Section 9.3*** and ***Chapter 12*** of the *TIA Guidelines*. The following section provides additional information on the research and professional practice basis of the pedestrian and bicycle QOS analysis requirement.

This appendix provides selected QOS methodologies that TIA preparers may find useful for evaluating bicycle and pedestrian conditions. This summary is adapted from materials prepared by Fehr & Peers in their *MMLOS Toolkit*.

At a minimum, methodologies used to evaluate bicycle and pedestrian QOS should:

- Directly address bicycling and/or walking
- Measure factors that can be addressed by project sponsors and/or Lead Agencies (such as sidewalk widths, presence of bicycle lanes, signal operations, etc.)
- Be readily adaptable for use in Santa Clara County

VTA has not evaluated all of these methodologies in depth and does not recommend one methodology over another. The methodologies described below address different priorities and some may be more appropriate than others for specific projects. In some cases, the TIA preparer may need to calibrate or otherwise adapt a methodology to better reflect local conditions. Quality of Service methodologies continue to be developed, and other methodologies not included in this appendix may be more appropriate than those presented here, depending on the nature of the project. Over time, VTA and its Member Agencies may revisit these methodologies and provide further guidelines for TIA preparers. Therefore, professional judgment should be applied when selecting a QOS methodology for TIAs.

Table G-1, next page, summarizes major features of the methodologies presented in this appendix.

TABLE G-1: QOS METHODOLOGIES COMPARISON

Methodology	Analysis Level		Project Type		Mode		Data Required	Reference
	Intersection	Street Segment	Development	General Plan	Pedestrian	Bicycle		
Charlotte Bicycle and Pedestrian LOS	X		X	*	X	X	Medium	City of Charlotte *Urban Street Design Guidelines*, Appendix B
Pedestrian/Bicycle Environmental Quality Index	X	X	X	*	X	X	High	San Francisco Dept of Public Health, *Bicycle* and *Pedestrian Environmental Quality Index*
HCM 2010 Bicycle and Pedestrian LOS	X	X	X	*	X	X	High	*HCM 2010: Highway Capacity Manual*
Layered Network Approach		X		X	X	X	Varies	*LA Street Classification and Benchmarking System*, 2010.
Level of Traffic Stress	X	X	X	X		X	Medium	Mekuria, Furth and Nixon, 2012. *Low-Stress Bicycling and Network Connectivity*
Built Environment Factors	X	X	X	X	X	X	Varies	- Fort Collins, Colorado, *Pedestrian Plan,* 2011. Level of Service - Burien, Washington, *Transportation Master Plan, 2012.* Table 4, Pedestrian LOS Checklist.
* This methodology is appropriate for General Plan-level goal setting, but evaluating an entire street network would involve a substantial effort.								

Research and Practice Basis of QOS Methodologies

Several bicycle and pedestrian quality of service (QOS) methodologies have been developed to measure how well transportation infrastructure and streetscape features support bicycling and walking. The VTA *TIA Guidelines* identify several QOS methodologies that could be used in TIAs in Santa Clara County. This section describes the research and professional practice basis for these methodologies. Summaries of each methodology, with links to web-based resources for applying them, are presented on pages G-6 through G-11 of this appendix.

Numerous recent research studies have shown that the built environment has a substantial effect on travel behavior, particularly walking and bicycling. Access to destinations and a well-connected street network correlate to higher levels of walking and bicycling (Ewing and Cervero 2010; Saelens et al. 2003). Infrastructure design is also tied to walking and bicycling. People are more likely to walk where sidewalks are present (Saelens and Handy 2008), to prefer walking on wide sidewalks with landscaping separating them from vehicle traffic, and to feel more comfortable at intersections with short crossing distances (Transportation Research Board, 2008). People also prefer to ride bicycles in dedicated lanes and on low-traffic streets (Buehler and Pucher 2012; Broach et al. 2012).

- Buehler, R. and J. Pucher. (2012). Cycling to Work in 90 Large American Cities: New Evidence on the Role of Bike Paths and Lanes. *Transportation 39 (2),* 409-432.
- Broach, J., J. Dill, J. Gliebe. (2012). Where do cyclists ride? A route choice model developed with revealed preference GPS data. *Transportation Research Part A: Policy and Practice. 46 (10)*, 1730-1740.
- Ewing, R. and R. Cervero. (2010). Travel and the Built Environment. A Meta-Analysis. *Journal of the American Planning Association.* 76 (3, 265-294.
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- Saelens, B. and S. Handy. (2008). Built Environment Correlates of Walking: A Review. *Medicine & Science in Sports & Exercise.* 40 (7 Suppl): S550–S566.
- Saelens, B., J.F. Sallis, L.D. Frank. (2003). Environmental correlates of walking and cycling: findings from the transportation, urban design, and planning literatures. *Annals of Behavioral Medicine, 25(2)*, 80–91.
- Transportation Research Board. *NCHRP Report 616: Multimodal Level of Service Analysis for Urban Streets. (*2008). Washington, D.C.: Transportation Research Board, National Research Council.

Pedestrian and Bicycle Environmental Quality Indices (PEQI and BEQI)

The San Francisco Department of Public Health developed the Pedestrian Environmental Quality Index (PEQI) and Bicycle Environmental Quality Index (BEQI) based on reviews of existing literature and with input from bicycle and pedestrian experts, advocates and facility users. To develop the PEQI, researchers conducted a literature review to identify specific indicators of pedestrian quality of service, such as vehicle speeds and sidewalk widths. These indicators were then assigned weights based on results from surveys of transportation experts and pedestrian advocates. The BEQI was developed using a similar two-part process: first identifying indicators of bicycle quality of service, such as bicycle lane width and pavement quality, and then weighting those indicators based on surveys of experts, advocates and local bicyclists. Site

assessments are conducted via a walking audit and checklist; this data can be collected using an Android smart phone application and integrated into a GIS database. The PEQI has been used for community planning and health assessment projects in San Francisco, Los Angeles, Denver and Massachusetts. The BEQI has been used primarily in San Francisco.

- San Francisco Department of Public Health. *The Pedestrian Environmental Quality Index (PEQI)*. (2008). San Francisco, California: Program on Health, Equity and the Environment, San Francisco Department of Public Health.
- San Francisco Department of Public Health. *The Bicycle Environmental Quality Index (BEQI)*. 2007. Program on Health, Equity and the Environment, San Francisco Department of Public Health.

Charlotte Pedestrian and Bicycle LOS

In 2007 the City of Charlotte, North Carolina, developed a methodology to assess design features that impact pedestrians and bicyclists crossing signalized intersections. The methodology was developed with input from several professional standards documents published by the Federal Highway Administration, the Institute of Transportation Engineers, Florida DOT and the City of Portland. Developers also consulted with local government staff and transportation consultants when identifying and ranking variables. These variables were compiled into two intersection scoring tools that grade intersections from A to F for pedestrian and bicycle travel. The City of Charlotte uses these tools to evaluate proposed intersection improvements. If automobile-oriented improvements would degrade pedestrian and bicycle conditions, alternative improvements or capacity enhancements are considered.

- Steinman, N. K. Hines. (2003). A Methodology to Assess Design Features for Pedestrian and Bicyclist Crossings at Signalized Intersections. Presented at the 2nd Urban Street Symposium, Anaheim, California.
- Charlotte Department of Transportation. 2007. Pedestrian & Bicycle Level of Service Methodology for Crossings at Signalized Intersections. Charlotte, North Carolina: Author.

HCM 2010 Bicycle and Pedestrian Level of Service

The Highway Capacity Manual 2010 (HCM 2010) is published by the Transportation Research Board (TRB) of the National Research Council, the preeminent transportation research organization in the United States. HCM 2010 bicycle and pedestrian evaluation methodologies were developed via a user-focused research effort that built on two decades of prior research on bicycle and pedestrian level of service. Researchers conducted a literature review and pilot tests to determine which factors in the bicycling and pedestrian environments are most important to street users. Locations that represented a mix of these factors were identified in Tampa, Florida (bicycle and pedestrian modes) and San Francisco (pedestrian only). At these locations, video footage was collected showing street segments and intersections from bicyclist and pedestrian points of view. Over one hundred survey participants in four cities around the United States then ranked video clips from A (excellent quality of service) to F (extremely poor quality of service). Regression models were developed to determine which variables had the greatest influence on user ratings of street segments, and equations were created to evaluate pedestrian and bicycle quality of service on street segments and at intersections.

- Transportation Research Board. *NCHRP Report 616: Multimodal Level of Service Analysis for Urban Streets. (*2008). Washington, D.C.: Transportation Research Board, National Research Council.

Layered Network Approach

The Layered Network Approach is a planning-level evaluation of a local area's transportation network. The approach was articulated in a white paper developed for the City of Los Angeles in its most recent update of the Transportation Element of its General Plan. The methodology is based on planning practice in cities that have assigned travel mode priorities to streets in order to create a complete streets network. Several cities have adopted this method, including Seattle, Austin, Denver, Alameda, CA and Glendale, CA. In cities that have identified the creation of layered networks as transportation planning priorities, the TIA can identify how a proposed project would contribute to or detract from that network.

- Fehr & Peers, Rifkin Transportation Group and Nelson\Nygaard Consulting. (2010). *LA Street Classification and Benchmarking System.*

Level of Traffic Stress

Researchers at the Mineta Transportation Institute developed the Level of Traffic Stress methodology to evaluate level of service for bicycle travel. Based on Dutch design standards for bicycle facilities and resident surveys from Portland, Oregon, the method classifies bicycle facilities on a scale from one to four. Lower numbers are assigned to facilities with low exposure to auto traffic and easy crossings at intersections, indicating low-stress environments attractive to many types of cyclists. The researchers piloted a network-wide analysis of San Jose, California using the Level of Traffic Stress model. They analysis measured the street network's connectivity for each of the four levels of traffic stress. Researchers then identified and tested intersection improvements that could increase the low-stress connectivity throughout the city.

- CROW (The National Information and Technology Centre for Transport and Infrastructure). (1994.) *Sign Up for the Bike: Design Manual for a Cycle-friendly Infrastructure.* Ede, The Netherlands: CROW.
- Geller, R. (c. 2007). *Four Types of Cyclists*. Portland, Oregon: City of Portland Office of Transportation.
- Mekuria, M.C., P.G. Furth., H. Nixon. (2012). *Low-Stress Bicycling and Network Connectivity.* San Jose, California: Mineta Transportation Institute.

Built Environment Factors

As described in the introduction to this section, many variables in the built environment affect whether a street or intersection supports walking and bicycling. QOS methodologies measuring these built environment factors have been customized for specific urban contexts, notably San Francisco, California, Charlotte, North Carolina (as described above) and Fort Collins, Colorado. Similar methodologies could be developed for other local areas, relying on existing research, professional judgment and local knowledge. The papers cited below and under the introduction to this section provide a starting point for developing such a methodology.

- Dill, J., S. Handy, J. Pucher. (2013). How to Increase Bicycling for Daily Travel. A Research Brief. Princeton, NJ: Active Living Research, a National Program of the Robert Wood Johnson Foundation.
- Ewing, R., S. Handy, R. Brownson, O. Clemente, E. Winston. (2006). Identifying and Measuring Urban Design Qualities Relating to Walkability. *Journal of Physical Activity and Health, 3, Suppl 1*, S223-S240.

CHARLOTTE BICYCLE AND PEDESTRIAN LOS

Summary

The City of Charlotte, North Carolina, developed a methodology to assess bicyclist and pedestrian safety and comfort at intersections. Quality of service is calculated based on a point system, with points awarded for design and operational features that improve or worsen conditions for bicyclists or pedestrians. The sum of the points accumulated for each mode establishes the LOS, with LOS A receiving the highest points and LOS F receiving the lowest points.

For pedestrian LOS, key characteristics include crossing distance, signal phasing and timing, corner radius, right-turn on red, crosswalk treatment, and adjustment for one-way street crossings. For bicycle LOS, key characteristics include width of bicycle travel way, speed of adjacent traffic, signal features, right-turning vehicle conflicts, right-turn on red, and crossing distance.

Reference

City of Charlotte, North Carolina. 2007. Appendix B of Urban Street Design Guidelines.

http://charmeck.org/city/charlotte/transportation/planprojects/pages/urban%20street%20design%20guidelines.aspx

Advantages

- Medium level of data input required
- Focused on factors within the public right-of-way, which can be addressed through planning and engineering
- Intersection-level analysis allows straightforward comparison with auto LOS

Disadvantages

- Does not address bicycle and pedestrian QOS between intersections

Data Requirements

- Signal phasing
  - RTOR
  - Left-turn conflicts
  - Pedestrian phasing
  - Countdown timer
- Intersection measurements:
  - Crosswalk type
  - Crossing distances
  - Lane widths
  - Curb radii
  - Presence and width of bicycle lanes
- Motorized traffic speeds

PEDESTRIAN/BICYCLE ENVIRONMENTAL QUALITY INDEX (PEQI & BEQI)

Summary

The San Francisco Department of Public Health developed the Pedestrian Environmental Quality Index (PEQI) and Bicycle Environmental Quality Index (BEQI) to measure the effects of built environment factors on bicycle and pedestrian environmental quality, activity and safety.

The PEQI and BEQI evaluate QOS for pedestrians and bicyclists at the intersection and street segment levels. The intersection-level assessment looks only at safety features that aim to protect pedestrians and bicyclists from vehicle traffic, while the segment-level assessment looks at land use, traffic and design features as well as perceived safety from crime and safety measures to increase cyclist visibility.

Reference

San Francisco Department of Public Health Program on Health, Equity and Sustainability. 2010.

Bicycle Environmental Quality Index.
http://www.sfhealthequity.org/component/jdownloads/viewcategory/19-beqi?Itemid=62

Pedestrian Environmental Quality Index.
http://www.sfhealthequity.org/component/jdownloads/viewcategory/20-peqi?Itemid=62

Advantages

- Straightforward application: checklist and index
- Basic software requirements (Microsoft Access, ArcGIS) for network analysis

Disadvantages

- Does not address street connectivity and presence of pedestrian attractors
- May not address all relevant design factors
- Not designed for use outside urban areas
- Requires extensive data inputs, many of which must be measured in the field

Data Requirements

Substantial data requirements for:

- Intersection safety features (e.g. pedestrian crossing treatments, signal operations)
- Auto speeds and volumes
- Street design (e.g. sidewalks, bicycle facilities, landscaping signage)
- Land use (e.g. street-fronting retail, bicycle parking)
- Perception of safety (e.g. lighting, litter, abandoned buildings)

HCM 2010 BICYCLE AND PEDESTRIAN LOS

Summary

The 2010 Highway Capacity Manual (HCM 2010) provides detailed instructions on calculating QOS for bicycles and pedestrians on urban streets (at the link, segment and facility levels) and at signalized and 2-way stop intersections. QOS scores are based on pedestrian or cyclist perception of their travel experience, taking into account dedicated facilities, accommodation at intersections, and exposure to automobiles.

Note that early testing in Santa Clara and Los Angeles Counties has indicated that this methodology is not fully sensitive to all input changes; in some cases (e.g. road diets) it produces results that are inconsistent with expectations or typical professional judgment. Further information on VTA's evaluation of HCM 2010 methodology is available on request from VTA staff.

Reference

National Research Council (U.S.). 2010. *HCM 2010: Highway Capacity Manual.* Washington, D.C: Transportation Research Board.

Advantages

- Provides a comprehensive evaluation of bicycle and pedestrian QOS at different scales
- Focused on factors within the public right-of-way, which can be addressed through planning and engineering
- Letter scoring enables straightforward comparison to auto LOS

Disadvantages

- Requires extensive data inputs
- Scores are heavily influenced by automobile volumes, which are difficult to mitigate in a planning or engineering context
- May not address all relevant design factors
- Can be insensitive to some input changes; some scenarios (e.g. road diets) produce inconsistent results

Data Requirements

Substantial data requirements for:

- Street segment and intersection geometry
- Intersection operations
- Automobile traffic speed and volumes
- Locations of landscaping, parking and sidewalk obstructions

LAYERED NETWORK APPROACH

Summary

This approach, which is suitable for General Plan-level analysis, designates travel mode priority by street to create a complete streets network. Layered networks recognize that while all travel modes need to be accommodated within a community, no single street can accommodate all transportation users at all times.

The layered network concept envisions streets as systems, with each street type designed to create a high quality experience for its intended users. A layered network approach can also use context-sensitive land use and mode overlays to enhance additional transportation modes. This approach can also be integrated with methodologies that measure quality of service for bicyclists and pedestrians at the intersection and corridor level. Implementing this methodology may require a commitment to rethinking the transportation network of an entire city or plan area.

Reference

Fehr & Peers, Rifkin Transportation Group and Nelson\Nygaard Consulting. 2010.

LA Street Classification and Benchmarking System. http://planning.lacity.org/PolicyInitiatives/Mobility%20and%20Transportation/LA%20Street%20Classification%20Final%20Report%20October%202010.pdf

Advantages

- Helps mitigate the challenge of accommodating all users on every roadway
- Creates flexibility and options with multiple travel routes, accommodating different travel modes on different streets
- Allows network layout and roadway design for ideal bicycle or transit networks
- Works well with other QOS methodologies

Disadvantages

- May require additional street connectivity and redundancy to create the multi-modal network
- Less effective if land uses do not support design of layered networks

Data Requirements

Data requirements vary, depending on whether the approach includes QOS methodologies and on which methodologies are used.

LEVEL OF TRAFFIC STRESS

Summary

The Level of Traffic Stress (LTS) method evaluates bicycle QOS by measuring low-stress connectivity, defined as "the ability of a network to connect traveler' origins to their destinations without subjecting them to unacceptably stressful links."

Based on Dutch standards for bicycle facility design, the method classifies bicycle facilities on a scale from one to four. Better scores are assigned to facilities with low exposure to auto traffic and easy crossings at intersections, indicating low-stress environments which are attractive to many types of cyclists.

Level of traffic stress can be mapped onto an entire transportation network, producing stress maps and making it possible to evaluate how well an entire network serves bicyclists.

Reference

Mekuria, M.C., Furth, P.G., Nixon, H. 2012.
Low-Stress Bicycling and Network Connectivity.
Mineta Transportation Institute, San José State University; San Jose, California.
http://transweb.sjsu.edu/project/1005.html

Advantages

- Focuses on factors that government planners and engineers can control
- Most data are readily available in public records

Disadvantages

- May require further adaptation to be used outside San José
- Stress mapping requires GIS extensions developed specifically for LTS evaluation
- Does not address pedestrian QOS

Data Requirements

- Street geometry: width, number of lanes, bicycle lane widths, presence of parking and width of parking lanes
- Other data: intersection control type, functional street classification or average daily traffic, percent of time bicycle lane is blocked

BUILT ENVIRONMENT FACTORS

Summary

An inventory of each category of physical features translates to a facility's perceived quality of service based on the elements of the built environment. This QOS approach evaluates two levels of physical features: basic (key) elements and enhancement elements.

For example, when assessing the pedestrian experience, key features would include: travel and crossing lane widths and presence of sidewalks, crosswalks and pedestrian signals. Enhancement features would include: pedestrian refuges, curb extensions, landscape buffers and pedestrian-oriented lighting. A similar approach could be used to evaluate bicycle QOS. Use of this methodology should involve a rating system with weights assigned to key and enhancement features, which would then be translated into a QOS score for the facility.

To adapt this methodology for use in TIAs, the Lead Agency should identify sets of basic and enhanced features for bicycle and pedestrian facilities and consider adding a rating system, in consultation with VTA staff. The methodology should be documented in the TIA.

Examples

Fort Collins, Colorado, *Pedestrian Plan,* 2011. Level of Service.
http://www.fcgov.com/transportationplanning/pedplan.php

Burien, Washington, *Transportation Master Plan, 2012.* Table 4, Pedestrian LOS Checklist.
http://www.burienwa.gov/index.aspx?NID=949

Advantages

- Design and intervention-focused
- Straightforward measurement of variables
- Can readily be adapted to specific contexts

Disadvantages

- Does not necessarily address presence of motor vehicles, which can have significant effect for bicycles and pedestrians
- Lead Agency must use discretion in determining relevant factors

Data Requirements

Data requirements vary significantly based on what factors are considered. This method may require traffic volumes, posted speed limits, bicycle facility locations, transit system data, and measurements and inventory of streetscape amenities.

Most local governments do not collect detailed information about the built environment as it applies to pedestrians. Information on the presence and attributes of bicycle facilities are generally easier to obtain.

APPENDIX H: Bicycle Parking Supply Recommendations

(Table 10-3 of VTA *Bicycle Technical Guidelines)*

Table 10-3
Bicycle Parking Supply Recommendations

Use	Required Number of Bicycle Spaces[1][2]
Residential (such as apartments, condominiums & townhouses)	
• General, multi-dwelling	1 Class I per 3 units + 1 Class II per 15 units.
• Primarily for students & low-income families, multi-dwelling	1 Class I per 2 units + 1 Class II per 15 units
• Primarily for residents 62 and older, multi-dwelling	1 Class I per 30 units + 1 Class II per 30 units
Schools	1 Class I per 30 employees[3] + 1 spot per 12 students (50% Class I and 50% Class II)
• Elementary, middle & high schools	
• Colleges - Student residences	1 Class I per 4.5 beds + 1 Class I per 30 employees
• Academic buildings and other university facilities	1 Class I per 30 employees + 1 spot per 9 student seats (25% Class I and 75% Class II)
Park-and-Ride Lots/Parking Garages	7% of auto parking (75% Class I & 25% Class II)
Transit Centers	2% of daily home-based boardings (75% Class I and 25% Class II)
Cultural/Recreational (includes libraries, theaters, museums, & religious institutions)	Class I per 30 employees + (Class II 1,500 sq. ft. or Class II per 60 seats (whichever is greater)
Parks/Recreational Fields	1 Class I per 30 employees + Class II per 9 users During peak daylight times of peak season
Retail Sales/Shopping Center/Financial Institutions/Supermarkets	1 Class I per 30 employees + Class II per 6,000 sq. ft.
Office Buildings/Offices	1 per 6,000 sq. ft. (75% Class I & 25% Class II)
Hotels/Motels/Bed-&-Breakfasts	1 Class I per 30 rooms + Class I per 30 employees
Hospitals	1 Class I per 30 employees + 1 Class II per 45 beds
Restaurants	1 Class I per 30 employees + 1 Class II per 3,000 sq. ft.
Industrial	1 Class I per 30 employees or 1 Class I per 15,000 sq. ft.
Day Care Facilities	1 Class I per 30 employees + 1 Class II per 75 children
Auto-Oriented Services	1 Class I per 30 employees
Other Uses	Same as most similar use listed

Notes

(1) For cities with less than 2% bicycle commuter rate. Cities with different bicycle commute rates should pro-rate these accordingly.

(2) The minimum number of required Class II Bicycle parking spaces is 4, except when the code would require 1 or less, in which case 2 bicycle spaces must be provided.

(3) Employees = maximum number of employees on duty at any one time.

Source: League of American Bicyclists, 1994.

APPENDIX I: Board Memorandum: Update on Voluntary Contributions to Transportation Improvements (March 6, 2014)

6.18

SANTA CLARA Valley Transportation Authority

Date: February 26, 2014
Current Meeting: March 6, 2014
Board Meeting: March 6, 2014

BOARD MEMORANDUM

TO: Santa Clara Valley Transportation Authority Board of Directors

THROUGH: General Manager, Nuria I. Fernandez

FROM: Chief CMA Officer, John Ristow

SUBJECT: Update on Voluntary Contributions to Transportation Improvements

FOR INFORMATION ONLY

BACKGROUND:

Santa Clara County is projected to continue to add substantial population and jobs in the coming years, and travel demand for all freeway segments is projected to grow. Many development projects, especially those closest to freeway ramps, will likely have significant impacts on the already congested freeway segments. However, the ability to add freeway capacity is limited due to right of way, financial and environmental constraints, making traditional capacity increasing improvements no longer feasible. As a result, local agencies are increasingly turning to other approaches to mitigate impacts to freeways.

One approach taken by certain Member Agencies in Santa Clara County is to identify contributions to improvements of freeway, transit and other regional facilities as mitigation measures for significant freeway impacts resulting from proposed land development projects. Other Member Agencies are also recognizing the value and need of pursuing mitigation for freeway impacts even if the impacts are not fully mitigated, and some have had conversations with VTA on this topic.

DISCUSSION:

At the request of some Member Agencies, VTA developed a structure for a program of Voluntary Contributions to Transportation Improvements. This structure provides guidance for local agencies pursuing contributions and provides VTA staff a consistent approach to commenting on projects with significant transportation impacts. The structure is also designed for flexibility recognizing that different circumstances will present different opportunities to contribute. Local agencies can use this voluntary program structure in their "tool box" of measures to address freeway impacts as part of their project approval process. The proposed voluntary program includes the following process and responsibilities:

3331 North First Street · San Jose, CA 95134-1927 · Administration 408.321.5555 · Customer Service 408.321.2300

a. VTA, as the Congestion Management Agency, comments on projects with significant impacts on the Congestion Management Program (CMP) facilities, including freeways, County Expressways, CMP intersections, bicycle and pedestrian facilities, and the transit system;

b. The Member Agency (City or County) approving the project, in its role as the California Environmental Quality Act (CEQA) Lead Agency, could choose to request a voluntary contribution from the developer toward transportation improvements as a mitigation measure for impacts to freeways using one or more of the agreed upon formulas;

c. The local agency would subsequently condition the project to pay the determined voluntary contribution toward regional transportation projects, and may cite this contribution in their CEQA documentation;

d. VTA and the local jurisdiction would execute agreements that would provide for the transfer of funds to regional transportation projects.

Benefits for VTA and local jurisdictions:

- VTA can follow a consistent process to comment on development projects with significant impacts on CMP freeway facilities;
- VTA can collect funds for regional transportation improvements that are already planned or under development and would otherwise could take longer to implement;
- Member Agencies, in their role as CEQA Lead Agencies, may benefit from a streamlined and more predictable CEQA process, specifically related to freeway impacts;
- In some cases, the Lead Agency may not need to issue a Statement of Overriding Considerations for significant freeway impacts that are mitigated through this Program; In other cases, the Lead Agency may be able to present findings, including efforts to reduce impacts, when issuing the Statements of Overriding Considerations;
- The transportation projects that receive funding from voluntary contributions would improve overall mobility in Santa Clara County and thereby increase business competitiveness, economic vitality, and quality of life.

Voluntary Contribution Commitments to Date

As of January 2014, four projects in Santa Clara County, in the Cities of Cupertino and Sunnyvale, have included commitments to provide voluntary contributions to transportation improvements within CEQA documents (summarized in Table 1, below). These contributions will be executed by funding agreements between the City and VTA, triggered when the project applies for a building permit or other development agreements. Two additional projects in the City of San José include commitments to contribute to transportation improvements tied to the issuance of permits such as a Caltrans Encroachment Permit, building permit, or tract/parcel map.

In the City of Cupertino, the Draft Environmental Impact Report (DEIR) for Apple Campus 2 found significant impacts on I-280 and SR 85 and included a commitment of approximately $1.3 million to freeway and transit projects on these freeways and parallel corridors as mitigation. In the City of Sunnyvale, three projects, the NetApp Master Plan, Moffett Place and Moffett Gateway, found significant impacts on US 101 and SR 237 and identified contributions to Express Lanes projects on these facilities as mitigation. In the case of the Moffett Place project, the developer has applied for a building permit and the City has initiated a funding agreement to transfer the voluntary contributions to VTA to help fund the Express Lanes projects.

Table 1: Summary of Projects Committing to Voluntary Contributions to VTA for Transportation Improvements

Lead Agency	Project	City Action / Date	Contribution Amount	Transportation Improvements Identified for Contributions
City of Cupertino	Apple Campus 2	Certified DEIR - 10/15/2013	$1,292,215	SR 85 Express Lanes Project, improvements on SB I-280 between El Monte Rd. and Magdalena Ave., BRT stations, or an alternative improvement or study towards on the impacted I-280 corridor
City of Sunnyvale	NetApp Master Plan	Certified MND - 2/29/2012	Not yet identified	US 101 Auxiliary Lanes, US 101 Express Lanes Project, SR 237 Express Lanes Project Phase II
City of Sunnyvale	Moffett Place	Certified DEIR, - 12/3/2-13, Issued building permit and initiated agreement with VTA - Dec. 2013	$577,062	US 101 Express Lanes Project, SR 237 Express Lanes Project Phase II
City of Sunnyvale	Moffett Gateway	Certified MND - 8/26/2013	$1,162,042	US 101 Express Lanes Project, SR 237 Express Lanes Project Phase II
City of San José	America Center (Legacy Partners)	Approved March 2000, Contribution tied to Caltrans Encroachment Permit	$1,000,000	SR 237 corridor improvements
City of San José	Valley Fair Expansion	Approved April 2007, Contribution tied to Tract/Parcel Map or Building Permit	$2,500,000	I-800/Stevens Creek Boulevard Interchange Project

Notes:
DEIR - Draft Environmental Impact Report
MND - Mitigated Negative Declaration

Outreach Summary and Committee Comments

Staff previously brought an item on voluntary contributions to the March 2013 of the Technical Advisory Committee (TAC) and brought a follow-up item to the August 2013 meetings of the TAC, Citizens Advisory Committee (CAC) and Policy Advisory Committee (PAC), and the September 2013 meeting of the Board of Directors as an information item. Staff also presented the item to the Systems Operations and Management (SOM) Working Group and the Land Use /Transportation Integration (LUTI) Working Group, two of TAC's working groups.

There was general concurrence from all groups that a structure for voluntary contributions could offer a useful tool for jurisdictions to consider when reviewing development projects. VTA can provide a suite of common methodologies or approaches to estimating voluntary contributions that all jurisdictions can use, cautioning that flexibility should be retained to allow jurisdictions to respond as effectively as possible to individual projects. The TAC asked VTA to proceed with more detailed development of a concept Voluntary Contribution Program for consideration by the Board of Directors. By request, VTA also brought a follow-up item to the October 2013 meeting of the SOM Working Group providing examples of potential contribution formulas for city staff to consider when conditioning a project to provide contributions.

There was general concurrence from all groups that a structure for voluntary contributions could offer a useful tool for jurisdictions to consider when reviewing development projects. VTA can provide a suite of common methodologies or approaches to estimating voluntary contributions that all jurisdictions can use, cautioning that flexibility should be retained to allow jurisdictions to respond as effectively as possible to individual projects. The TAC asked VTA to proceed with more detailed development of a concept Voluntary Contribution Program for consideration by the Board of Directors. By request, VTA also brought a follow-up item to the October 2013 meeting of the SOM Working Group providing examples of potential contribution formulas for city staff to consider when conditioning a project to provide contributions.

Next Steps

VTA and City of Sunnyvale staff are working on finalizing the funding agreement for the voluntary contributions to Express Lanes projects included in Moffett Place project approval. Once the funding agreement is finalized, it will be brought before the Board of Directors as an Action Item for approval.

Voluntary contributions from the other projects listen in Table 1, as well as future projects that commit to contributions, will be executed by funding agreements between the Lead Agency and VTA and will be brought to the Board of Directors for approval.

ADVISORY COMMITTEE DISCUSSION/RECOMMENDATION:

This item was on the Regular Agenda at the February 2014 Citizens Advisory Committee (CAC), Technical Advisory Committee (TAC), and Policy Advisory Committee (PAC).

CAC Chairperson Hadaya asked how contribution amounts are determined and staff responded that they are determined by agreement between the City and the project applicant. He further

asked if the contributions are part of a City's Transportation Impact Fee program and staff responded that the contributions are separate from that program. Committee member Blaylock asked if this would supersede other approaches to transportation demand management and staff responded that the approaches could be used in tandem. Member Powers and Vice Chair Wadler asked why the program is voluntary and staff responded that it will continue to be a voluntary program unless staff is directed by the Board to adopt a mandatory program, such as a Countywide Traffic Impact Fee program. Member Rogers asked if County Expressways are included and staff responded that the County has separately been collecting contributions for Expressway improvements.

At TAC, staff gave a brief presentation. Member Salvano noted that the City of San Jose conditioned the Valley Faire Mall Expansion project to contribute $2.5 million to the I-880/Stevens Creek interchange and should be added to the list of projects. He also suggested a wording change to the America Center project. Committee member Saleh asked if there are any guidelines on calculating the contribution amount and staff responded that staff works with Cities to suggest contribution formulas but it is ultimately the City's decision which formula to use. Committee member Salvano asked about the time limit on the use of contributions. Committee member Batra commented that the time limit applies to the programming of funds and committee member Borden commented that the time limit does not apply when the contribution is part of a development agreement.

At PAC, staff gave a brief presentation. Member Jensen asked how a nexus is established between the contributions and the impacts and staff responded that the project's transportation analysis would establish the nexus by analyzing the impacts and their locations. Vice Chairperson Carr asked if there are transportation projects in every part of the County that developments could contribute to, and staff responded that in some cases there may not be an appropriate project for contributions. Committee member Abe-Koga asked if the purpose of the contribution is to fund a transportation improvement that would mitigate the level of service impact back to "less than significant" and staff responded that operational and efficiency improvements are acceptable even if they do not mitigate all the way to "less than significant." Member Allan asked staff to explain how contribution amounts are determined. Vice Chairperson Carr asked if the contributions would fully fund the transportation improvements and staff responded that the contributions would go towards project development and VTA would need to leverage other funds. He also asked if VTA would oppose an EIR if a project has significant impacts on the freeway. Staff responded that there is no action as "oppose" in the CEQA process. VTA's role is to comment on the transportation impacts and will continue to do so consistently. Committee members Kniss, Miller, Davis and Jensen questioned the use of the term "voluntary" and suggested changing the name of the program. Some of the members stated that if a City requires a contribution, it is not voluntary. Staff agreed and explained that the word "voluntary" distinguishes it from a mandatory regional impact fee program, as in some other Counties.

STANDING COMMITTEE DISCUSSION/RECOMMENDATION:

This item was on the Regular Agenda at the February 2014 Congestion Management Program & Planning Committee (CMPP). Staff gave a brief presentation, followed by questions from the committee. Committee Chairperson Pirzynski brought the committee's attention to the

comments made at the PAC meeting. He asked staff to explain how the program is voluntary when it is implemented through enforceable documents such as development agreements and Environmental Impact Reports. Staff responded that the program is voluntary on the part of the Cities because it is not part of a mandatory regional impact fee. Member Whittum expressed support for VTA's comments on development projects. He stated that the voluntary contribution doesn't necessarily have to be a CEQA mitigation, it could just be a condition for approval. Chairperson Pirzynski stated that the Silicon Valley continues to be a magnet for jobs and this could be a valuable tool to mitigate traffic impacts on the freeway system. Vice Chairperson Herrera stated that certainty in the development process is the key and this program is a "good carrot". She asked staff to confirm that contribution from the City of San Jose's Valley Fair Mall Expansion project would be added to the list of projects. She asked how this program relates to the Cities' own Traffic Impact Fees (TIF). Staff responded that Cities' own TIF programs don't include freeway improvements so this one would be in addition to the individual TIF programs. Committee Members had a discussion on how the contribution is calculated. Staff explained that VTA could provide some examples on how to calculate the contribution based on a percentage impact on specific freeway segments, but ultimately it is the City Council's decision to determine the amount through negotiation with the developer. Chairperson Pirzynski requested that staff continue to update the committee as future projects come forward with contributions. Member Whittum asked which Cities don't have TIF programs and staff responded that staff would provide the information separately. He also suggested VTA may facilitate a nexus study for several small Cities that don't have sufficient resource to conduct one.

Prepared By: Robert Cunningham
Memo No. 4473

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APPENDIX J: CMP Multimodal Improvement Plan

Action List

Table 4-1
Deficiency Plan Action List

A. BICYCLE AND PEDESTRIAN MEASURES

A1. Improved Roadway Bicycle Facilities and Bike Paths
A2. Transit and Bicycle Integration
A3. Bicycle Lockers and Racks at Park and Ride Lots
A4. Bicycle Facilities and Showers at Developments
A5. Improved Pedestrian Facilities
A6. Pedestrian Signals
A7. Lighting for Pedestrian Safety

B. TRANSIT

B1. Improvement of Bus, Rail, and Ferry Transit Service
B2. Expansion of Rail Transit Service
B3. Expansion of Ferry Services
B4. Preferential Treatment for Buses and In-Street Light Rail Vehicle (LRVs)
B5. Transit Information and Promotion
B6. Transit Pricing Strategies to Encourage Ridership and Reduce Transit Vehicle Crowding
B7. Transit Fare Subsidy Programs
B8. Transit Centers
B9. Improved and Expanded Timed Transfer Programs
B10. Improved and Expanded Fare Coordination
B11. Signal Preemption by Transit Vehicles
B12. Bus Stop Bulbs
B13. School Bus Transit Service

C. CARPOOLING, BUSPOOLING, VANPOOLING, TAXIPOOLING, JITNEYS, CASUAL CARPOOLING AND OTHER SHARED RIDES (Ridesharing)

C1. Preferential Treatment for Shared Ride Vehicles
C2. Increased Use of Commuter/Employer Services

D. HIGH OCCUPANCY VEHICLE (HOV) FACILITIES

D1. Preferential Treatment for HOVs
D2. Bus and Carpool/Buspool/Vanpool/Taxipool Priority Lanes on Local Arterials
D3. Accelerated Implementation of the 2005 HOV Master Plan
D4. HOV to HOV Facilities
D5. Direct HOV Lane Entrance/Exit Ramps to Arterials and Space Generators

E. OTHER TCMs, RELATED MEASURES

E1. Stricter Travel Demand Management/Trip Reduction Ordinance
E2. Expanded Public Education Programs
E3. Child Care Facilities at or close to Employment Sites, Transit Centers and Park and Ride Lots
E4. Retail Services at or close to Employment Sites, Transit Centers and Park and Ride Lots
E5. Telecommuting Centers and Work-at-Home Programs
E6. Parking Management

F. TRAFFIC FLOW IMPROVEMENTS

F1. Preferential Treatment of HOVs (See measures B4 and C1)
F2. Ramp Metering
F3. Auxiliary Lanes
F4. Signalization Improvements
F5. Computerized Traffic and Transit Control/Management on Arterials
F6. Turn Lanes at Intersections
F7. Turn Restrictions at intersections
F8. Reversible Lanes
F9. One-Way Streets
F10. Targeted Traffic Enforcement Programs
F11. Restrictions on Curb Side Deliveries and On-Street Parking

Source: Table 4-1, Santa Clara Valley Transportation Authority, *Deficiency Plan Requirements*, 2010. For more information, refer to Appendix C in the above document.

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APPENDIX K: TIA Preparation Checklist

TIA Preparation Checklist

This checklist is intended to provide a concise summary of the key items a Lead Agency must consider when preparing a TIA Report for CMP purposes. It is designed to serve as an aid to assist agency staff and consultants. However, it is not intended to replace the *TIA Guidelines* themselves, and does not provide the same level of detail or cover every required topic. Lead Agencies should still consult the main *TIA Guidelines* document to ensure that all requirements are being addressed.

TIA Scoping, Notification and Preparation

☐ 1) Determine if a TIA is required for CMP purposes (project generates > 100 net new trips without applying trip reductions), ***Section 2.1***;

☐ 2) Determine whether the project falls into any of the Special Project Types identified in the *TIA Guidelines* (Large or Unique Projects; Projects on a Jurisdiction Border; Multi-Agency Projects; Projects Generating Large Numbers of Pedestrian, Bicycle or Transit Trips; or Large Projects, General Plans or Areawide Plans where a more extensive transit delay analysis may be appropriate); If the project falls into any of these Types, refer to ***Chapter 12*** for more guidance;

☐ 3) Notify all appropriate jurisdictions that a TIA is being prepared using the TIA Notification Form, see ***Section 3.1*** and ***Appendix B***;

☐ 4) Provide guidance to TIA preparer/consultant on TIA study scope, considering both Lead Agency direction and other agency input from the TIA Notification process. This guidance will include:
- Determination of roadway facilities that should be included in analysis, ***Section 2.2***;
- Determination of other transportation issues to address, ***Section 2.3***;
- Identification of the appropriate study scenarios, See ***Chapter 4, Recommended TIA Table of Contents***, and ***Chapter 11, Future Year Scenarios (Cumulative Conditions)***;

☐ 5) Prepare and submit a draft TIA Report to VTA and other agencies within the time frame outlined in ***Section 3.1***, Item 2;

☐ 6) Address comments received on the draft TIA Report, ***Section 3.1***, Item 4;

☐ 7) Send adopted conditions for approved projects that relate to the CMP Transportation System and the promotion of alternative transportation modes to VTA, ***Section 3.1***, Item 5 *(Encouraged)*.

Project Description, Study Area and Existing Conditions

☐ 8) Provide a description of the project and the transportation context surrounding it. Topics covered should include: Location of Proposed Project; Proposed Land Use and Project Size; and Site Plan, ***See Chapter 4, Recommended TIA Table of Contents***;

☐ 9) Provide information about the existing Project Area roadway system, ***Section 6.2***;

☐ 10) Use a table similar to ***Table A-1: Freeway Analysis Requirement Determination*** to assess whether freeway segment analysis is required; ***Section 5.2.8*** and ***Appendix A***;

☐ 11) Provide a description and map of the existing Project Area transit system, ***Section 6.3***;

☐ 12) Provide a description and map of the existing Project Area bicycle system, ***Section 6.4***;

☐ 13) Provide a description and map of the existing Project Area pedestrian system, ***Section 6.4***;

☐ 14) When applicable, provide information on Transportation Demand Management (TDM) or unique transportation or land use plans affecting the Project Area, ***Section 6.4***;

Trip Generations and Trip Reductions

☐ 15) Clearly identify the source of each trip generation rate used in the transportation analysis; Include in the TIA Report a full description of the trip generation methodology used and a summary of all inputs and assumptions, ***Section 8.1***;

☐ 16) Consider all available options to reduce project-generated automobile trips, including mixed-use development, a strong TDM program, project location, parking management, and development near frequent transit service. Clearly explain, document and justify all auto trip reductions claimed in the TIA Report; this includes stating which trip reduction approach (Standard, Peer/Study-Based, and/or Target-Based) is being used, ***Section 8.2***;

☐ 17) Provide a trip generation rate summary table, ***Section 8.1.2***; This table should show:
- Quantification (e.g. square feet, number of units, etc.) of trip generation for each land use type;
- Trip generation rates used;
- Resulting trips generated;
- If applicable, any trip reductions;

☐ 18) If the project is using parking management measures as part of its overall TDM/trip reduction strategy, document this in the TIA Report and note it in the Auto Trip Reduction Statement, ***Section 8.2.1.5*** and ***Appendix C***;

☐ 19) For all projects, summarize trip generation and any trip reductions, if applicable, in an Auto Trip Reduction Statement in the Executive Summary of the TIA Report, using the form provided in ***Appendix C***;

Trip Distribution and Assignment

☐ 20) Provide trip distribution percentages on an area map with transportation facilities and the project site, ***Section 8.3***;

☐ 21) Provide clear explanation with justification and documentation of pass-by and diverted trip reductions, ***Sections 8.3.1, 8.3.2*** and ***8.3.3***;

☐ 22) Provide trip assignments on a figure showing project trips at study intersections, ***Section 8.3***;

Project Conditions

☐ 23) Provide a Traffic Analysis of the "without project" scenario(s) (Existing, Background or Cumulative, as applicable); This analysis shall include, but not be limited to evaluation of Auto Level of Service and queuing impacts, ***Section 9.1***;

☐ 24) Provide a Traffic Analysis of Project Conditions compared to the "without project" scenarios(s) (Existing, Background or Cumulative, as applicable); This analysis shall include, but not be limited to evaluation of Auto Level of Service and queuing impacts, ***Section 9.1***;

☐ 25) Provide an analysis of project effects on the transit system; The evaluation shall consider transit vehicle delay, transit access and facilities, ***Section 9.2***;

☐ 26) Provide an analysis of bicycle and pedestrian modes under project conditions; This analysis shall address project effects on existing bicyclists and pedestrians as well as the effects and benefits of site development and associated roadway improvements on bicycle/pedestrian infrastructure, circulation, Quality of Service (QOS), and conformance to existing plans and policies, ***Section 9.3***;

☐ 27) Provide an analysis of site circulation and access, ***Section 9.4***;

Mitigation Measures and Multimodal Improvements

☐ 28) Discuss mitigation measures to address project impacts per CMP standards, and improvements to address other project-related effects on the transportation system; The discussion of mitigation measures and improvements shall take into account all the issues noted in ***Chapter 10*** of the *TIA Guidelines*, including consideration of all categories of mitigation measures and improvements (physical or capacity-enhancing improvements, operational and/or efficiency improvements, and projects and programs used to reduce project auto trip generation), identification of the feasibility of proposed measures, who is responsible for implementing each measure, when the measure will be implemented, and the cost of implementation, as appropriate;

☐ 29) If a project causes a transportation impact that cannot be mitigated to the CMP Auto Level of Service (LOS) standard, a Multimodal Improvement Plan must be provided along with the TIA, or the project applicant must agree in advance to participate in the implementation of a Multimodal Improvement Plan after project approval, ***Section 10.1***, Item 5;

☐ 30) If a project impacts a CMP System facility that has a Multimodal Improvement Plan, it is subject to the conditions of the Plan; The project's TIA Report shall identify what role the project will play in implementing the

Multimodal Improvement Plan Actions, ***Section 10.1***, Item 6;

☐ 31) Mitigation measures for Auto Level of Service (LOS) shall not unreasonably degrade bicycle, pedestrian or transit access, and circulation. If a project proposes mitigation for Auto LOS involving changes to roadway segment or intersection geometry, or changes to signal operations, the TIA shall analyze and disclose whether the mitigation would affect pedestrian or bicycle conditions or increase transit vehicle delay, ***Section 10.1***, Item 7;

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APPENDIX L: Glossary of Terms

The following are definitions for terms used in the *TIA Guidelines*:

Approved Project: A specific project for which an entitlement to build has been granted.

Auto Level of Service: Auto Level of Service (LOS) describes the operations of roadway segments or intersections in terms of vehicle speed, volume and capacity, freedom of movement, traffic delay, comfort, convenience and safety. Auto LOS measurements are given by letter designations, from A (least congested) to F (most congested). Procedures to analyze Auto LOS are defined in the VTA Traffic LOS Analysis Guidelines. Auto LOS evaluates operations for all common motor vehicle types, including automobiles, light and heavy trucks, and motorcycles. In addition, although congestion also affects transit vehicles operating in general purpose lanes, transit operations are affected by additional factors and are typically evaluated separately from Auto LOS.

Background Conditions: The analysis scenario including Existing Conditions and approved projects.

Carpooling: Commuting in a privately-owned vehicle with at least two passengers. Carpooling can be arranged informally or with employer assistance.

CDT Program: VTA's Community Design & Transportation Program to integrate transportation and land us planning. The Program includes the Cores, Corridors and Station Areas framework, which shows VTA and local jurisdiction priorities for supporting concentrated development in the County.

CEQA: California Environmental Quality Act. This act requires that Lead Agencies disclose and evaluate the significant environmental impacts of proposed projects and adopt all feasible mitigation measures to reduce or eliminate those impacts. Although there is some overlap in the analysis of transportation impacts under CEQA and the CMP, it is not intended that TIAs following the VTA CMP *TIA Guidelines* will provide all information required for CEQA purposes.

Changes to Roadway Segment or Intersection Geometry: Changes to the geometry of existing roadway segments or intersections, including, but not limited to, adding travel lanes on roadway segments, adding turn lanes at intersections, and changing pedestrian and/or bicycle crossing distance.

Changes to Signal Operations: Substantive changes to traffic signal operations, including, but not limited to, changes to phasing or cycle length.

CMA: Congestion Management Agency: The CMA is a countywide organization responsible for preparing and implementing the county's Congestion Management Program. In Santa Clara County, VTA is the designated CMA.

CMP: Congestion Management Program: A comprehensive program designed to reduce traffic congestion, to enhance the effectiveness of land use decisions, and to improve air quality. Unless otherwise specified, CMP means Santa Clara County's Congestion Management Program.

Cumulative Conditions: The analysis scenario including Background Conditions (Existing Conditions plus Approved Projects) and expected growth, plus the project.

Deficiency Plan: See *Multimodal Improvement Plan*.

Diverted Linked Trip: Trips generated by the proposed project that would be attracted from roadways in the vicinity of a proposed project site. This type of trip requires a diversion from one roadway to another to gain access to the site.

Effect: Used to refer to project-related effects on elements of the transportation system for which no CMP standard or impact threshold has been established. Distinct from "impact," which refers to project effects on the CMP system as determined by the standards and impact thresholds established by VTA. The TIA should particularly focus on project-related effects that tend to degrade pedestrian, bicycle and transit conditions.

Existing Conditions: Roadway, transit, bicycle and pedestrian conditions at the time that the Lead Agency issues the TIA Notification Form.

Express Lanes: Express Lanes are HOV (high-occupancy vehicle) lanes which solo drivers can access by paying a toll. Tolls vary by congestion levels to keep the lanes operating at a minimum of 45 mph. In other areas outside Santa Clara County, Express Lanes may be called high-occupancy toll (HOT) or managed lanes.

Facility: A part of the transportation network, such as a roadway, intersection, bicycle lane, sidewalk or transit station. The word "facility" is used generally in this document to refer to CMP System roadway facilities, which include CMP intersections, freeways, and rural highways. CMP facilities also include the CMP Transit Network and the CMP Bicycle Network, but these are generally called out specifically in the text.

Financial Incentives: Transportation Demand Management (TDM) programs sometimes offer financial incentives to participants who choose to commute by carpooling, vanpooling, transit, bicycling or walking. Incentives can include: transportation allowances; parking cash-out; pre-tax commuter benefits; and subsidies such as free transit passes or transit fare incentives.

General Planning Efforts: General planning efforts are planning studies that are designed to provide basic guidelines for land uses, the transportation system, and design characteristics in a relatively large area. The key element of this definition is that these types of planning efforts do not confer, as a right, the ability to develop a specific project.

HCM: Highway Capacity Manual. A manual published by the Transportation Research Board (TRB) that contains concepts, guidelines, and equations to calculate the level of service on highways and intersections. In 2010 the manual was updated to include new level of service/quality of service measures for transit, pedestrians, and bicycles.

HOV: High Occupancy Vehicle Lane. A lane on a street or highway reserved for the use of high occupancy vehicles either all day or during specified periods (for example, during rush hours). Buses, carpools, and/or vanpools are allowed to use HOV lanes.

ITE: The Institute of Transportation Engineers is a professional organization that publishes technical guidelines for transportation engineering. ITE *Trip Generation* is a standard reference for estimating trips based on the type and size of proposed development.

Impact: Used to refer to project effects on the CMP system as determined by the standards and impact thresholds established by VTA. Distinct from "effect," which refers to project-related effects on elements of the transportation system for which no CMP standard or impact threshold has been established.

Improvement: A change that addresses the effects, particularly negative effects, of a development project on elements of the transportation system for which no CMP standard or impact threshold has been established.

Lead Agency: The agency responsible for preparing the Transportation Impact Analysis report.

Level of Service (LOS): This is a measure used by transportation professionals to grade performance of transportation facilities. LOS is graded on a scale of A (the best performance) to F (the worst performance).

Long-Term Development Project: A specific development project expected to be completed beyond five years from the date of approval. Most long-term development projects will also be phased-development projects.

Member Agency: A local jurisdiction that is a signatory of the CMA's Joint Powers Agreement. This includes all cities within the county, Santa Clara County, and the Santa Clara Valley Transportation Authority.

Mitigation: A change that addresses the impacts of a development project on elements of the transportation system for which a CMP standard or impact threshold has been established.

Mixed-Use Development: A project that combines one or more land uses. Depending on the land uses, the vehicle trips generated by the development may be fewer than if the uses were developed separately.

Mode Split: The share of all trips to and from a project site taken by each of the four major transportation modes (automobile, transit, bicycle and pedestrian).

Multimodal Improvement Plan: VTA terminology for "Deficiency Plan" as defined by CMA statute. Multimodal Improvement Plans are plans to identify offsetting measures to improve transportation conditions on CMP facilities in lieu of making physical traffic capacity improvements such as widening an intersection or roadway.

Near-Term Development Project: A near-term development project will be built and occupied within five years of project approval. Most near-term development projects will also be specific development projects.

Net New Peak Hour Trip: Proposed project trips which are not associated with an existing development on the site and not included in an approved project.

Parking Management Program: Parking policies that are designed to make the most efficient use of parking supply, and encourage alternatives to driving alone, such as parking charges, parking cash out, shared parking, or preferential parking for carpool or vanpool vehicles.

Pass-By Trips: Trips generated by the proposed project that would be attracted from traffic passing the proposed project site on an adjacent street that contains direct access to the generator.

PDA: Priority Development Area. These locations were identified for concentrated development as part of Plan Bay Area, the Metropolitan Transportation Commission's 2040 Regional Transportation Plan for the nine-county Bay Area.

Peak Hour: The highest morning or evening hour of travel reported on a transportation network or street.

Peer/Study-Based Reduction: Automobile trip reduction approach that may be used when studies of similar projects, or of other sites occupied by the project applicant, have demonstrated comparable trip reductions through survey results or other data.

Phased-Development Project: A project that will be completed in separate pieces over a period of time.

Pre-Tax Commuter Benefit: Federal tax code allows the use of tax-free dollars to pay for transit commuting and parking costs. The monthly benefit amount varies from year to year based on adopted legislation.

Project Conditions: A study scenario evaluating the addition of the project, along with estimated project generated trips, to the "without project" scenario (Existing, Background, or Cumulative Conditions, as appropriate).

Quality of Service (QOS): A metric used to evaluate how well a transportation facility serves its users. Several different QOS methodologies are currently used by transportation professionals, often with a focus on bicyclists, pedestrians or transit passengers.

Queuing: Formation of a line of vehicles at an intersection or driveway, when vehicle arrival rates are higher than departure rates.

Specific Development Project: A project that, when approved, grants an entitlement for construction of a particular size and type.

Target-Based Reduction: Automobile trip reduction approach that may be used when the project applicant has entered into an enforceable agreement with the Lead Agency that limits the number of automobile trips traveling to and from the project site.

TDM: Transportation Demand Management. This is a term used to describe policies and programs to reduce the number of cars on the road. Examples of transportation demand management include flextime, ridesharing, telecommuting, and financial incentives.

Transit Fare Incentives: Transit fare incentives are financial incentives offered to reduce drive-alone commuter trips, such as free transit passes or pre-paid fares.

Transportation Demand Forecasting Model: An analytical tool that predicts travel patterns based upon the spatial relationship between various types of land uses and connecting transportation facilities (e.g., roadways and transit).

Trip Assignment: The trip assignment step of a TIA consists of assigning trips to specific transportation facilities on the basis of the trip distribution percentages.

Trip Distribution: The trip distribution step of a TIA consists of forecasting the travel direction of project-generated trips to and from the project site.

Trip Generation: Trip generation predicts the total number of trips to and from a project site.

Trip Reduction: Similar to but broader than TDM, trip reduction refers to any effort to reduce the number of automobile trips generated by a development project. The VTA *TIA Guidelines* provide guidance on several approaches that encourage and document reductions in automobile trips generated by new development projects compared to standard automobile-trip rates.

Trip Threshold: A complete TIA for CMP Purposes shall be performed for any project in Santa Clara County expected to generate 100 or more net new weekday (AM or PM peak hour) or weekend peak hour trips, including both inbound and outbound trips.

Vanpooling: Commuting in a seven- to 15-passenger van, with driving undertaken by commuters. The riders usually pay for some portion of the van's ownership and operating cost. The van may be privately owned, employer-sponsored or provided through a private company that leases vehicles.

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Scope for E.I.R. – Notice of Preparation
The Hills at Vallco"
City of Cupertino department of community developement.
Dear sirs,

I would like to sugest That a stormwater trash and sediment removal device be installed on the storm sewer lines leading out from "The Hills at Valla The soil on the green roof is potentally erodable into Calabasas Creek, as well as litter going down the catch basins. It will also help the City of Cupertino fulfill the EPA's "Clean Water Act". This Act is pant of an NPDES permit, and let me be clear that I belive that Cupertino is in compliance.

An example of a stormwater treatment device is the "CDS hydrodynamic separator" by Contech es. Many of these have been installed by the City of San Jose, A hydrodynamic separator can be intalled in place of a planned Manhole. The cost of installing one pro actively would be less than installing one reactivly. In November, 2014, the city of San Jose had to build and act. reativly when Baykeeper ~~sued~~ intended to sue under the Clean Water Act.

In Conclusion, being proactive on not just "The Hills at Vallco", but all the developments affecting the stormwater system in the city of Cupertino will make it a great place to live for future generations.

Attachments:
EPA sheets
Contech sheets
Baykeeper lawsuit sheets
Example of San Jose Plans
Utility plans

Ray Martin

[redacted]

NPDES Home

OVERVIEW

Water pollution degrades surface waters making them unsafe for drinking, fishing, swimming, and other activities. As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. In most cases, the NPDES permit program is administered by authorized states. Since its introduction in 1972, the NPDES permit program is responsible for significant improvements to our Nation's water quality.

WHAT CAN I FIND ON THIS WEB SITE?

The site contains technical and regulatory information about the NPDES permit program. The NPDES Permits Program consists of a number of programs and initiatives. Links to each of these programs and initiatives are located on the right navigational bar.

- For information on specific facilities with NPDES permits, there are several EPA public search tools that may be helpful:

  - Enforcement and Compliance History Online (ECHO) - The public access website to data stored in EPA's compliance and enforcement data systems, including ICIS-NPDES for facilities regulated under the CWA NPDES program. ECHO allows users to find and download information on permit data, inspections, violations, enforcement actions, and penalties. The ECHO website was recently modernized and redesigned to make it easier to use and maintain. The modernized search for Clean Water Act facility search, effluent charts, and water quality data.

  - Envirofacts - A single point of access to select U.S. EPA environmental data. This website provides access to several EPA databases to provide you with information about environmental activities, including those that affect water. Under "System Data Searches", a user can retrieve facility data from ICIS-NPDES.

    Specify the facilities by using any combination of facility name, permit number, location, industrial classification, and chemicals.

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Water: Stormwater

Municipal Separate Storm Sewer System (MS4) Main Page

OVERVIEW

Polluted stormwater runoff is commonly transported through Municipal Separate Storm Sewer Systems (MS4s), from which it is often discharged untreated into local waterbodies. To prevent harmful pollutants from being washed or dumped into an MS4, operators must obtain a NPDES permit and develop a stormwater management program.

- Phase I, issued in 1990, requires *medium* and *large* cities or certain counties with populations of 100,000 or more to obtain NPDES permit coverage for their stormwater discharges.There are approximately 750 Phase I MS4s.
- Phase II, issued in 1999, requires regulated small MS4s in urbanized areas, as well as small MS4s outside the urbanized areas that are designated by the permitting authority, to obtain NPDES permit coverage for their stormwater discharges. There are approximately 6,700 Phase II MS4s.

Generally, Phase I MS4s are covered by individual permits and Phase II MS4s are covered by a general permit. Each regulated MS4 is required to develop and implement a stormwater management program (SWMP) to reduce the contamination of stormwater runoff and prohibit illicit discharges.

WHAT IS AN MS4?

An MS4 is a conveyance or system of conveyances that is:

- Owned by a state, city, town, village, or other public entity that discharges to waters of the U.S.;
- Designed or used to collect or convey stormwater (including storm drains, pipes, ditches, etc.);
- Not a combined sewer; and
- Not part of a Publicly Owned Treatment Works (sewage treatment plant).

WHAT CAN I FIND ON THIS WEB SITE?

EPA's MS4 Program Highlights

To access the full list of NPDES stormwater information, use the navigation tool box on the right side of this page.

- New! Revised Memorandum on Stormwater Permits and TMDLs (PDF) (12 pp, 444K, About PDF) - Updates 2002 memorandum addressing the establishment of wasteload allocations (WLAs) for stormwater discharges in Total Maximum Daily Loads (TMDLs) and water quality-based effluent limits in NPDES permits for stormwater discharges.

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- New! MS4 Permit Compendium (PDF) (38 pp, 2.3MB, About PDF) - Compiles example EPA and State MS4 permits that include post-construction performance standards and effluent limitations that implement approved TMDLs for impaired waterbodies.
- Stormwater Phase II Final Rule Fact Sheet Series - Provides an overview of the major elements of the Final Phase II Rule, including small MS4 programs, minimum control measures, and permitting.
- National Menu of BMPs - Best management practices (BMPs) that can be used to meet the six minimum measures.
- Urbanized Area Maps - Includes a set of digitized maps for each urbanized area as defined by the 2000 US Census with one map containing an overview of the urbanized area and another detailed map with street level features.
- MS4 Webcasts - EPA webcasts for local stormwater professionals on the six minimum measures.
- MS4 Program Evaluation Guidance - Developed to help NPDES authorities evaluate the quality of Phase I and Phase II MS4 programs.
- Measurable Goals Guidance for Phase II Small MS4s (55 pp, 624K, About PDF) - Designed to help small MS4 operators comply with the measurable goals permitting requirements.
- MS4 Permit Improvement Guide (119 pp, 2.11MB, About PDF) - The primary purpose of this Guide is to assist permit writers in strengthening municipal separate storm sewer system (MS4) stormwater permits.

Federal Government and Stormwater Fees

- Federal Government Obligations to Pay Stormwater Fees (2 pp, 119K, About PDF) EXIT Disclaimer - On January 4, 2011, President Obama signed into law "An Act to Amend the Federal Water Pollution Control Act to clarify Federal responsibility for stormwater pollution," Pub. L. No. 111-378, 124 Stat.4128 (2011) to clarify that reasonable service charges payable by federal agencies, as described in Section 313(a), include certain storm water assessments.
- Memorandum Clarifying that New Legislation Provides for Stormwater Fees to be Paid from Current Lump-sum Appropriations (13pp, 196K, About PDF) EXIT Disclaimer - On March 18, the Departmnet of Justice/Office of Legal Counsel released a memorandum to clarify that language in Section 313(c)(2)(B) of the Clean Water Act contained in new legislation obligating Federal agencies to pay stormwater managements fees does not impose a specific appropriation requirement. Stormwater assessments are payable from annual, including current, lump-sum appropriations.

Fact Sheets on Key Municipal Stormwater Program Issues (Developed by EPA Region 3)

- Evaluating the Effectiveness of Municipal Stormwater Programs (6 pp, 374K, About PDF) - A fact sheet for municipalities on how to evaluate the effectiveness of their municipal stormwater programs.
- Funding Stormwater Programs (5 pp, 217K, About PDF) - A fact sheet for municipalities on alternatives for funding their stormwater program.
- Incorporating Environmentally Sensitive Development Into Municipal Stormwater Programs (7 pp, 440K, About PDF) - A fact sheet for municipalities on how to encourage or require low impact development practices to meet stormwater goals.
- Understanding Impaired Waters and Total Maximum Daily Load (TMDL) Requirements for Municipal Stormwater Programs (5 pp, 615K, About PDF) - A fact sheet for municipalities on how to determine if their storm drain system discharges to an impaired

waterbody and how to upgrade their stormwater management programs to address the TMDL.

Minimum Control Measures

The MS4 Program contains elements called *minimum control measures* that when implemented should result in a significant reduction in pollutants discharged into receiving waters. The minimum measures are outlined below:

- Public Education/Outreach and Participation/Involvement - Describes BMPs that involve the public in developing, implementing, and reviewing MS4 management programs and describes ways to reduce stormwater pollution.
  - Public Outreach Fact Sheets and Webcasts
  - Getting In Step: A Guide for Conducting Watershed Outreach Campaigns (136 pp, 3.3MB, About PDF) - Describes some of the tools needed to develop and implement an effective watershed outreach plan.
  - Getting In Step: Engaging and Involving Stakeholders in Your Watershed (80 pp, 1.34MB, About PDF) - Describes the tools needed to effectively identify, engage, and involve stakeholders throughout a watershed.
  - Nonpoint Source (NPS) Outreach Toolbox - Provides educational materials and other useful links for educating the public on nonpoint source pollution or stormwater runoff.
  - Stormwater Manager's Resource Center EXIT Disclaimer
- Illicit Discharge Detection and Elimination (IDDE) - Describes BMPs for identifying and eliminating illicit discharges and spills to storm drain systems.
  - IDDE Fact Sheets and Webcasts
  - IDDE Guidance Manual (378 pp, 9.3MB, About PDF)- Outlines practical, effective IDDE techniques for MS4s.
  - IDDE Supporting Materials - Provides support and guidance to Phase II communities developing IDDE programs.
- Construction Site Runoff Control - Describes BMPs for MS4s and construction site operators to address stormwater runoff from active construction sites.
  - Construction Fact Sheets and Webcasts
  - Developing Your Stormwater Pollution Prevention Plan: A Guide for Construction Sites - Provides helpful guidance, including SWPPP templates and a sample inspection form, for operators who must prepare a SWPPP to obtain NPDES permit coverage for their stormwater discharges.
- Post-Construction Runoff Control - Describes BMPs for MS4s, developers, and property owners to address stormwater runoff after construction activities have ended.
  - Post-Construction Fact Sheets and Webcasts
  - Managing Stormwater in Your Community: A Guide for Building an Effective Post-Construction Program EXIT Disclaimer - Developed by the Center for Watershed Protection for EPA to provide stormwater professionals with practical guidance, insights, and tools to build effective programs. The guide is accompanied by several downloadable "tools" that are designed to be used and modified by local stormwater managers to help with program implementation.

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- Urban Stormwater Retrofit Practices Manual EXIT Disclaimer - Developed by the Center for Watershed Protection highlighting retrofit practices that can capture and treat runoff before it is delivered to waterbodies.
- Reducing Stormwater Costs through Low Impact Development (LID) Strategies and Practices - Contains 17 case studies from developments across North America that examine the economic viability of LID practices compared to traditional stormwater management design practices.
- Monitoring to Demonstrate Environmental Results: Guidance to Develop Local Stormwater Monitoring Studies Using Six Example Study Designs (PDF) EXIT Disclaimer (176 pp, 2.16MB, About PDF) - This manual presents six monitoring study designs that can be used by Municipal Separate Storm Sewer System (MS4) communities to assess their local stormwater programs.

- Pollution Prevention/Good Housekeeping Fact Sheets and Webcasts
  - Stormwater Wet Pond and Wetland Management Guidebook (80 pp, 4.12MB, About PDF) - This guidebook discusses inspection and maintenance practices at existing ponds and wetlands.
  - Municipal Pollution Prevention/Good Housekeeping Practices Manual EXIT Disclaimer - This manual focuses on control and reduction of stormwater pollution and addresses local subwatershed restoration goals and objectives. (Manual 9)
  - Street Sweeping/Storm Drain Cleanout Study Manual (73 pp, 1.11MB, About PDF) EXIT Disclaimer - This manual provides information to support pollutant removal efficiencies for street sweeping and storm drain cleanout practices for Phase I and II communities in the Chesapeake Bay watershed.

Funding Information

- Guidance for Municipal Stormwater Funding (PDF) EXIT Disclaimer (140 pp, 1MB) - Developed by the National Association of Flood and Stormwater Management Agencies (NAFSMA) under a grant provided by EPA in January 2006 to provide funding guidance for stormwater utilities.
- Clean Water State Revolving Fund (CWSRF) - Describes funding options for a wide variety of water quality projects.
- Nonpoint Source (319) Grant Program - Provides grant money, under section 319 of the Clean Water Act, to states, territories, and Indian Tribes to support activities part of an approved Nonpoint Source Management Program.
- Catalog of Federal Funding Sources for Watershed Protection - Searchable database of financial assistance sources (grants, loans, cost-sharing) available to fund a variety of watershed protection projects.

Stormwater

- NPDES Home
- Basic Information
- Municipal MS4s
- Construction Activities
- Construction General Permit eNOI
- Industrial Activities
- Multi-Sector General Permit eNOI

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Last updated on Wednesday, November 26, 2014

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Santa Clara Valley
Urban Runoff
Pollution Prevention Program

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Uploaded to Water Board FTP site on March 16, 2014

March 15, 2015

Mr. Bruce H. Wolfe
Executive Officer
Attention: Janet O'Hara
San Francisco Bay Region
Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: Submittal of SCVURPPP Urban Creeks Monitoring Report in compliance with the monitoring and reporting requirements contained in MRP C.8.g.III

Dear Mr. Wolfe:

On behalf of all Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) Co-permittees, I am pleased to submit the SCVURPPP Urban Creeks Monitoring Report (UCMR) for Water Year 2014 (October 2013 – September 2014). The UCMR is submitted in compliance with provisions C.8.g.III of the Municipal Regional Storm water NPDES Permit (Order # R2-2009-0074), also known as the MRP. The UCMR consists of a main report and three appendices.

We look forward to discussing the findings,' conclusions and recommended next steps included in the UCRM. Please contact me or Chris Sommers if you have any comments or questions. We look forward to continuing to work with you and your staff to successfully conduct water quality monitoring in the Santa Clara Valley.

Certification Regarding SCVURPPP Program Annual Report

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted.[1] Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Adam W. Olivieri, Dr. P.H., P.E.
Program Manager

[1] Notwithstanding the above, Appendix C was prepared as a regional submission as part of BASMAA collaborative efforts on behalf of all MRP Permittees.

1021 S. Wolfe Road, Suite 185 • Sunnyvale, CA 94086 • tel: (408) 720-8811 • fax: (408) 720-8812
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1-800-794-2482

Third Party Monitoring - Please note that consistent with provision C.8.a.iv of the MRP, two water quality monitoring requirements were fulfilled or partially fulfilled by third party monitoring in Water Year 2014.

- As described in Section 5 of the main body of the attached Urban Creeks Monitoring Report (UCMR), the Regional Monitoring Program for Water Quality in the San Francisco Estuary (RMP) conducted a portion of the data collection in Water Year 2014 on behalf of Permittees, pursuant to provision C.8.e – Pollutants of Concern Loads Monitoring (i.e.,Table 8.4, Categories 1 and 2). The results of that monitoring are reported in Section 5 and Appendix C of the attached UCMR. The electronic data submittal to the Water Board (and the California Environmental Data Exchange Network) of all data collected from all stations monitored by both Permittees and the RMP in Water Year 2014 pursuant this provision is planned for later in 2015 following completion of final quality assurance review.
- Additionally, as noted in Section 6 of the main body of the attached UCMR, data collected pursuant to provision C.8.e.iii (Long Term Monitoring - Table 8.4 - Category 3) was initiated by the State of California's Surface Water Ambient Monitoring Program (SWAMP) through its Stream Pollutant Trend Monitoring Program at locations identified in Table 8.3 of the MRP. As stated in provision C.8.e.iii Permittees may use these data to comply with the monitoring requirements included in this provision. The schedule for SWAMP's review and reporting of data collected pursuant to this provision, however, differs from the schedule described in the MRP. Per MRP provision C.8.a.iv, the Permittees request that the Executive Officer adjust the MRP due dates for these reporting deliverables to synchronize with the third-party reporting schedules of SWAMP and the RMP for Water Year 2014 and future years covered under the MRP.

Cc SCWRPPP Management Committee Members
Tom Mumley, Water Board Assistant Executive Officer

Attachments: SCVURPPP Urban Creeks Monitoring Report (Water Year 2014)

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Santa Clara Valley
Urban Runoff
Pollution Prevention Program

Watershed Monitoring and Assessment Program

Urban Creeks Monitoring Report

Water Quality Monitoring

Water Year 2014 (October 2013 – September 2014)

Submitted in compliance with Provision C.8.g.iii of NPDES Permit # CAS612008

March 15, 2015

PREFACE

In early 2010, several members of the Bay Area Stormwater Agencies Association (BASMAA) joined together to form the Regional Monitoring Coalition (RMC), to coordinate and oversee water quality monitoring required by the Municipal Regional National Pollutant Discharge Elimination System (NPDES) Stormwater Permit (MRP)[1]. The RMC includes the following participants:

- Clean Water Program of Alameda County (ACCWP)
- Contra Costa Clean Water Program (CCCWP)
- San Mateo County Wide Water Pollution Prevention Program (SMCWPPP)
- Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP)
- Fairfield-Suisun Urban Runoff Management Program (FSURMP)
- City of Vallejo and Vallejo Sanitation and Flood Control District (Vallejo)

This Urban Creeks Monitoring Report complies with the MRP Reporting Provision C.8.g.iii for reporting of all data collected pursuant to Provision C.8 in Water Year 2014 (October 1, 2013 through September 30, 2014). Data presented in this report were produced under the direction of the RMC and the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) using probabilistic and targeted monitoring designs as described herein.

In accordance with the BASMAA RMC Multi-Year Work Plan (Work Plan; BASMAA 2011) and the Creek Status and Long-Term Trends Monitoring Plan (BASMAA 2012), monitoring data were collected in accordance with the BASMAA RMC Quality Assurance Program Plan (QAPP; BASMAA, 2014a) and BASMAA RMC Standard Operating Procedures (SOPs; BASMAA, 2014b). Where applicable, monitoring data were derived using methods comparable with methods specified by the California Surface Water Ambient Monitoring Program (SWAMP) QAPP[2]. Data presented in this report were also submitted in electronic SWAMP-comparable formats by SCVURPPP to the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) on behalf of SCVURPPP Co-permittees and pursuant to Provision C.8.g.ii.

[1] The San Francisco Bay Regional Water Quality Control Board (SFRWQCB) issued the MRP to 76 cities, counties and flood control districts (i.e., Permittees) in the Bay Area on October 14, 2009 (SFRWQCB 2009). The BASMAA programs supporting MRP Regional Projects include all MRP Permittees as well as the cities of Antioch, Brentwood, and Oakley, which are not named as Permittees under the MRP but have voluntarily elected to participate in MRP-related regional activities.

[2] The current SWAMP QAPP is available at:
http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/qapp/swamp_qapp_master090108a.pdf

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CDS® Stormwater Treatment

The CDS hydrodynamic separator uses swirl concentration and patented continuous deflective separation to screen, separate and trap trash, debris, sediment, and hydrocarbons from stormwater runoff. CDS captures and retains 100% of floatables and neutrally buoyant debris 2.4mm or larger, effectively removes sediment, and is the only non-blocking screening technology available in a stormwater treatment device.

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DESCRIPTION

TECHNICAL INFO

APPLICATIONS

CASE STUDIES

PHOTOS

VIDEOS

Superior Stormwater Trash and Sediment Removal

The CDS is a swirl concentrator hybrid technology that provides patented continuous deflective separation – a combination of swirl concentration and patented indirect screening to screen, separate and trap debris, sediment, and hydrocarbons from stormwater runoff. The indirect screening capability of the system allows for 100% removal of floatables and neutrally buoyant material debris 2.4mm or larger, without binding. CDS retains all captured pollutants, even at high flow rates, and provides easy access for maintenance.

CDS is used to meet trash Total Maximum Daily Load (TMDL) requirements, for stormwater quality control, inlet and outlet pollution control, and as pretreatment for filtration, detention/infiltration, bioretention, rainwater harvesting systems, and Low Impact Development designs.

How CDS Treats Stormwater

- Stormwater enters the CDS through one or multiple inlets and/or a grate inlet.
- The inlet flume guides the treatment flow into the separation chamber where water velocities within the chamber create a swirling vortex.
- Water velocities in the swirl chamber continually shear debris off the treatment screen, making it the only non-blocking screening technology available in a hydrodynamic separation system.
- The combination of swirl concentration and indirect screening force floatables and solids to the center of the separation chamber trapping 100% of floatables and neutrally buoyant debris larger than the screen aperture.
- Sediment settles into an isolated sump while floatables and neutrally buoyant pollutants are captured in the separation cylinder. All pollutants remain in these sections of the unit until they are removed during maintenance.
- Stormwater then moves under the hydrocarbon baffle, and the treated water exits the system. The baffle acts as a wall for hydrocarbon containment. It contains previously captured hydrocarbons and prevents the agitation of hydrocarbons when high-flows spill over the diversion weir.
- During high-intensity events, the internal diversion weir directs a portion of flows greater than the design storm around the treatment chamber and over an internal bypass weir.
- Treated stormwater exits the CDS via the outlet pipe.

CDS Features and Benefits

Features	Benefits
1. Superior pollutant removal	1. Captures and retains 100% of floatables and neutrally buoyant debris 2.4mm or larger
2. Self-cleaning screen	2. Ease of maintenance
3. Isolated storage sump eliminates scour potential	3. Excellent pollutant retention
4. Internal bypass	4. Eliminates the need for additional structures
5. Multiple pipe inlets and 90-180° angles	5. Design flexibility
6. Numerous regulatory approvals	6. Proven performance

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CDS Configurations

- Inline, offline, grate inlet, and drop inlet configurations available
- Internal and external peak bypass options available

CDS Approvals

CDS has been verified by some of the most stringent stormwater technology evaluation organizations in North America, including:

- Washington State Department of Ecology
- New Jersey Department of Environmental Protection

CDS Applications

CDS is commonly used in the following stormwater applications:

- Stormwater quality control – trash, debris, sediment, and hydrocarbon removal
- Urban retrofit and redevelopment
- Inlet and outlet protection
- Pretreatment for filtration, detention/infiltration, bioretention, rainwater harvesting systems, and Low Impact Development designs.

CDS Maintenance

- Maintaining a CDS is a simple process that can be accomplished in less than 30 minutes for most installations using a vacuum truck, with no requirement to enter the unit.

Contech has created a network of Certified Maintenance Providers (http://www.conteches.com/products/stormwater-management/maintenance-services.aspx) to provide maintenance on stormwater BMP's.

RESOURCE TOOLS

CDS Guide Operation, Design, Performance and Maintenance (/Site-Management/Document-Management.aspx?Command=Core_Download&EntryId=12889)

CDS Specification (/Site-Management/Document-Management.aspx?Command=Core_Download&EntryId=2958)

CDS Flier (/Site-Management/Document-Management.aspx?Command=Core_Download&EntryId=13096)

START A PROJECT

Stormwater Treatment Product Design Worksheet (/Site-Management/Document-Management.aspx?Command=Core_Download&EntryId=9481)

(/design-toolbox/dyo-project/dyo-hydrodynamic-separator.aspx)Design Your Own Hydrodynamic Separator (HDS) (/design-toolbox/dyo-project/dyo-hydrodynamic-separator.aspx)

Start calculating your land value (/Site-Management/Document-Management.aspx?Command=Core_Download&EntryId=10160)

APPLICATIONS

- STORMWATER DETENTION (HTTP://WWW.CONTECHES.COM/PRODUCTS/APPLICATIONS/STORMWATER-DETENTION)
- STORMWATER INFILTRATION (HTTP://WWW.CONTECHES.COM/PRODUCTS/APPLICATIONS/STORMWATER-INFILTRATION)
- WATER QUALITY PROTECTION (HTTP://WWW.CONTECHES.COM/PRODUCTS/APPLICATIONS/STORMWATER-QUALITY-PROTECTION)
- INLET AND OUTFALL PROTECTION (HTTP://WWW.CONTECHES.COM/PRODUCTS/APPLICATIONS/STORMWATER-INLET-AND-OUTFALL-PROTECTION)
- INDUSTRIAL STORMWATER (HTTP://WWW.CONTECHES.COM/PRODUCTS/APPLICATIONS/INDUSTRIAL-STORMWATER)
- OIL / SPILL CONTROL (HTTP://WWW.CONTECHES.COM/PRODUCTS/APPLICATIONS/STORMWATER-SPILL-CONTROL)
- LOW IMPACT DEVELOPMENT/GREEN INFRASTRUCTURE (HTTP://WWW.CONTECHES.COM/PRODUCTS/APPLICATIONS/LOW-IMPACT-DEVELOPMENT-GREEN-INFRASTRUCTURE)

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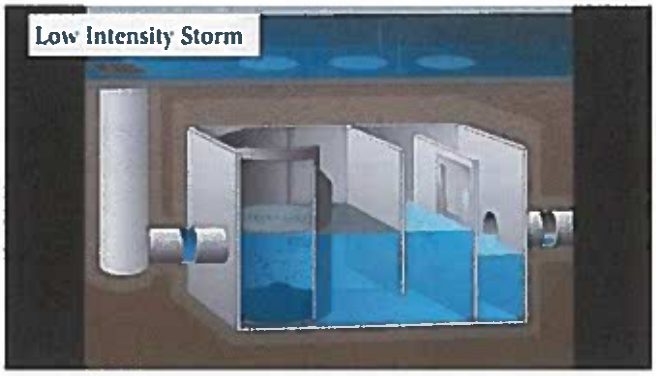

Vortechs® Stormwater Treatment

Vortechs is a hydrodynamic separator that combines swirl concentration and flow controls into a shallow treatment unit that traps and retains trash, debris, sediment, and hydrocarbons from stormwater runoff. Vortechs removes sediment down to 50 microns and is the ideal solution for projects that require a shallow treatment device due to groundwater, utility or bedrock constraints.

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DESCRIPTION

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CASE STUDIES

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Stormwater Treatment For Shallow Applications

Vortechs is a below-ground, engineered stormwater treatment device that combines swirl concentration and flow controls into a single treatment unit. Vortechs is ideal for capturing and retaining trash, debris, sediment, and hydrocarbons from stormwater runoff. The Vortechs system's large swirl concentrator and flow controls work together to create a low energy environment, ideal for capturing and retaining particles down to 50 microns.

How Vortechs Treats Stormwater

- Untreated stormwater enters the Vortechs swirl chamber through an inlet pipe.
- The swirling motion of the water within the chamber promotes gravitational separation of solids which settle on the chamber floor.
- Stormwater exits the swirl chamber, where a baffle wall traps floatables and hydrocarbons.
- Stormwater flows under the baffle wall into the flow control chamber which contains separate flow controls for peaks and low-intensity flows that are designed specific to project requirements.
- Treated stormwater flows to the outlet chamber and exits via the outlet pipe.

Vortechs Features and Benefits

Features	Benefits
1. Large swirl chamber	1. Fine particle removal down to 50 microns
2. Shallow profile – Typical depth below pipe invert is only 3 feet.	2. Easy and cost-effective installation, especially on sites with high groundwater, bedrock or utility conflicts
3. Unobstructed access to stored pollutants	3. Easy maintenance
4. Numerous regulatory approvals	4. Proven performance

Vortechs Configurations

- Inline
- Offline
- Cast-in-Place

Vortechs Approvals

Vortechs has been tested and verified by some of the most stringent stormwater technology evaluation organizations in North America, including:

- Washington State Department of Ecology
- New Jersey Department of Environmental Protection

Vortechs Applications

(http://www.conteches.com/products/stormwater-management/treatment/vortechs.aspx#1826149-applications)

- Stormwater quality control – trash, debris, sediment, and hydrocarbon removal
- Inlet and outlet protection

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- Pretreatment for filtration, detention/infiltration, bioretention, rainwater harvesting, and Low Impact Development designs.

Vortechs Maintenance

- Vortechs provides unobstructed access to stored pollutants, making it easy to maintain.
- Maintaining a Vortechs is a simple process that can be easily accomplished using a vacuum truck, with no requirement to enter the unit.
- Contech has created a network of Certified Maintenance Providers (http://www.conteches.com/products/stormwater-management/maintenance-services.aspx) to provide maintenance on stormwater BMP's.

RESOURCE TOOLS

Vortechs Guide Operation, Design, Performance, and Maintenance (http://www.conteches.com/Site-Management/Document-Management.aspx?Command=Core_Download&EntryId=12891)

Hydrodynamic Separator Products Brochure (/Site-Management/Document-Management.aspx?Command=Core_Download&EntryId=2934)

Vortechs Specification (/Site-Management/Document-Management.aspx?Command=Core_Download&EntryId=2959)

START A PROJECT

Stormwater Treatment Product Design Worksheet (/Site-Management/Document-Management.aspx?Command=Core_Download&EntryId=9481)

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APPLICATIONS

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- STORMWATER INFILTRATION (HTTP://WWW.CONTECHES.COM/PRODUCTS/APPLICATIONS/STORMWATER-INFILTRATION)
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VortSentry® HS Stormwater Treatment

The VortSentry HS is a compact stormwater treatment system that uses helical flow technology to enhance gravitational separation of floating and settling pollutants from stormwater. The small footprint of the VortSentry HS makes it an effective stormwater treatment option for projects where space is at a premium.

DESCRIPTION
TECHNICAL INFO
APPLICATIONS
CASE STUDIES
PHOTOS

Compact Stormwater Treatment

The VortSentry HS is a compact, below grade stormwater treatment system that uses helical flow technology to enhance gravitational separation of floating and settling pollutants from stormwater flows. The small footprint of the VortSentry HS makes it an effective stormwater treatment option for projects where space is at a premium.

The VortSentry HS accepts a wide range of pipe sizes to treat and convey a wide range of flows. The unique internal bypass weir allows flows exceeding the treatment capacity to be diverted within the unit eliminating the need for an external bypass structure.

How the VortSentry HS Treats Stormwater

- Untreated stormwater enters the VortSentry HS through an inlet pipe or grate inlet.
- Low, frequently occurring storm flows are directed to the treatment chamber where a tangentially oriented downward pipe induces a swirling motion in the treatment chamber that promotes the separation of suspended solids. Trash and floating debris are also captured in the treatment chamber.
- Moderate storm flows are directed into the treatment chamber through a secondary inlet, which allows for capture of floating trash and debris. The secondary inlet provides for treatment of higher flows without significantly increasing the velocity or turbulence in the treatment chamber.
- Flow exits the treatment chamber through the outlet flow control, which manages the amount of flow that is treated and helps maintain the helical flow patterns developed within the treatment chamber.
- Flows exceeding the system's rated treatment flow are diverted away from the treatment chamber by the flow partition.
- Treated stormwater exits the VortSentry HS via the outlet pipe.

VortSentry HS Features and Benefits

Features	Benefits
1. Compact system	1. Small footprint; ideal for projects where space is at a premium
2. Helical flow pattern	2. Enhanced capture and containment of floating and settling pollutants
3. Unique internal bypass	3. Eliminates the need for a separate bypass structure
4. Inlet and grated inlet configuration available	4. Design flexibility

VortSentry HS Configurations

The VortSentry HS is available in three standard configurations. All three configurations are available in 36-inch (900-mm) through 96-inch (2400-mm) diameter manholes.

- Inline (with inlet and outlet pipes at 180° to each other)
- Grated inlet
- A combination of grate and pipe inlets.

VortSentry HS Applications

- Stormwater quality control – trash, debris, sediment, and hydrocarbon removal
- Inlet and outlet protection
- Pretreatment for filtration, detention/infiltration, bioretention, rainwater harvesting and Low Impact Development designs.

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VortSentry HS Maintenance

- VortSentry HS provides unobstructed access to stored pollutants, making it easy to maintain.
- Maintaining a VortSentry HS is a simple process that can be easily accomplished using a vacuum truck, with no requirement to enter the unit.
- Contech has created a network of Certified Maintenance Providers (http://www.conteches.com/products/stormwater-management/maintenance-services.aspx#8052641-find-a-certified-maintenance-provider) to provide maintenance on stormwater BMP's.

RESOURCE TOOLS

VortSentry HS Guide Operation, Design, Performance and Maintenance (/Site-Management/Document-Management.aspx?Command=Core_Download&EntryId=2937)

Hydrodynamic Separator Products Brochure (/Site-Management/Document-Management.aspx?Command=Core_Download&EntryId=2934)

VortSentry HS Specification (/Site-Management/Document-Management.aspx?Command=Core_Download&EntryId=2960)

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APPLICATIONS

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Environmental group to sue San Jose for sewage spills and trash pollution

By Paul Rogers

progers@mercurynews.com

Posted: 11/24/2014 05:36:15 PM PST8 Comments | Updated: 11 months ago

Trash in Guadalupe River in San Jose (San Francisco Baykeeper)

In a move that could force the city of San Jose to spend millions modernizing its sewage system, cleaning up trash and removing homeless encampments, an environmental group announced Monday it will file a lawsuit under the Clean Water Act charging the city with failing to stop pollution from washing into creeks and San Francisco Bay.

The group, San Francisco Baykeeper, said San Jose has had 780 sewage spills over the past five years, and has allowed tons of trash to flow into the Guadalupe River and Coyote Creek through its storm drain system.

The city has missed key deadlines for action, the group contends; has violated various permits; and has fecal coliform and other pollutants that far exceed health standards in its creeks.

Trash in Coyote Creek in San Jose (San Francisco Baykeeper)

"San Jose is a hot spot for trash pollution and bacterial pollution into the bay," said attorney Sejal Choksi, program director for Baykeeper. "Its leaders have not taken care of the problem or prioritized the issue. We've seen the trash, we've measured the bacterial pollution. What they are doing is not sufficient."

City leaders said they were surprised.

"We're disappointed that Baykeeper didn't reach out to us first for a conversation," said Kerrie Romanow, San Jose's director of environmental services. "We really think there could have been a less expensive way to start the conversation."

Romanow noted that the city is geographically large.

"San Jose is 180 square miles," she said. "You would expect that we would have more episodes than a 3-square-mile city."

Advertisement

Romanow said sewage spills have been declining in recent years, from roughly 200 in 2009 to about 135 last year within city limits. This year San Jose is on pace for fewer than 100, she said.

Baykeeper officials say that's still too many. They noted that San Jose's own records show it spilled 523,265 gallons of sewage from 2009 through July of this year, enough to fill roughly 20 backyard swimming pools. Much of that sewage runs into storm drains or creeks, where it pollutes the water and flows to San Francisco Bay.

San Jose has more than 2,100 miles of sewage pipes connecting to its wastewater plant in Alviso. Roughly 90 percent of those pipes are made of clay, which can crack over time, causing spills or allowing water to rush in during rainstorms, causing sewage to overflow through manhole covers. The city also has more than 1,000 miles of storm drains, which empty into creeks and the bay.

Baykeeper also said the city has not done enough under its federal stormwater permit to reduce trash that flows into creeks and the bay.

Romanow said San Jose has already installed nine catch basins -- large underground vaults that can cost up to $500,000 each with strainers to catch trash -- in its storm drain system, and it plans to put in 20 more over the next three years. She said the city has increased street sweeping and banned plastic bags to further reduce litter.

"Our city has demonstrated commitment and intent. We are putting a lot of money and effort into this," she said.

Choksi said the city has not adequately spelled out how it intends to reduce trash pollution into creeks 70 percent by 2017, as a 2009 regulation requires.

Any agreement between the two parties, or a judgment in a lawsuit, could also affect homeless encampments, which are sources of trash and human waste.

"This is a very good thing. It's about time that it was done," said Mondy Lariz, a longtime San Jose creek activist.

Lariz said although the city has taken some steps, it hasn't been enough.

"The health hazard from the homeless using the creeks as a restroom is a major problem," he said. "And the trash issue is large. Some of it is toxic materials -- paint cans, hazardous waste."

The Clean Water Act is one of the strongest environmental laws in the United States. It allows citizens, rather than just government agencies, to file lawsuits against polluters. Under the law, violators are subject to fines of up to $37,500 a day, meaning San Jose could technically face millions in penalties,

although in many cases, settlements are worked out to reduce pollution instead.

Baykeeper issued a 60-day notice Monday that it intends to sue, which is required under the law.

Over the past decade or so, the group has taken legal action against about 20 cities in the Bay Area. In 2006, for example, after the city of Richmond spilled 17 million gallons of sewage over a three-year period, much of it into streams and the bay, Baykeeper filed suit and Richmond and its wastewater management agency, West County Wastewater District, agreed to spend $25 million upgrading its sewage system.

In May, two environmental groups, the Natural Resources Defense Council and Los Angeles Waterkeeper, won a six-year lawsuit that went to the U.S. Supreme Court in which Los Angeles County was found liable for untreated stormwater pollution. The ruling, also based on the Clean Water Act, requires the county to clean up stormwater pollution, billions of gallons of which flows to beaches every year, sometimes causing people to become ill.

Paul Rogers covers resources and environmental issues. Contact him at 408-920-5045. Follow him at Twitter.com/PaulRogersSJMN.

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SAN FRANCISCO
BAYKEEPER®

November 24, 2014

VIA CERTIFIED MAIL

Hans Larsen, Director
Department of Transportation
City of San Jose
200 E. Santa Clara St., 8th Floor
San Jose, CA 95113

Dave Sykes, Director
Public Works Department
City of San Jose
200 E. Santa Clara St., 5th Floor
San Jose, CA 95113

Kerrie Romanow, Director
Environmental Services Department
City of San Jose
200 E. Santa Clara St., 10th Floor
San Jose, CA 95113

Ed Shikada, City Manager
City of San Jose
200 E. Santa Clara St., 8th Floor
San Jose, CA 95113

Re: Notice of Violation and Intent to File Suit Under the Clean Water Act

Dear Ms. Romanow, Mr. Larsen, Mr. Skyes, and Mr. Shikada:

I am writing on behalf of San Francisco Baykeeper ("Baykeeper") to notify you that San Jose is in violation of the Federal Water Pollution Control Act, 33 U.S.C. §§ 1251 *et seq.* ("Clean Water Act" or "CWA") and to invite you to contact me immediately to schedule a meeting and begin discussing solutions.

Baykeeper is a non-profit public benefit corporation dedicated to the preservation, protection, and defense of the environment, wildlife, and natural resources of the San Francisco Bay and its tributaries. As explained below, this letter provides notice of the City of San Jose's unlawful discharge of trash and bacterial pollution in violation of the *Municipal Regional Storm Water NPDES ("NPDES") Permit*, NPDES Permit No. CAS612008, Order No. R2-2009-0074, California Regional Water Quality Control Board San Francisco Bay Region ("MS4 Permit").

The MS4 Permit regulates discharges to and from San Jose's municipal separate storm sewer system ("MS4"). The violations of the MS4 Permit alleged in this letter concern San

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

SPECIFICATIONS FOR

6736 – LARGE TRASH CAPTURE DEVICE INSTALLATION – PHASE III

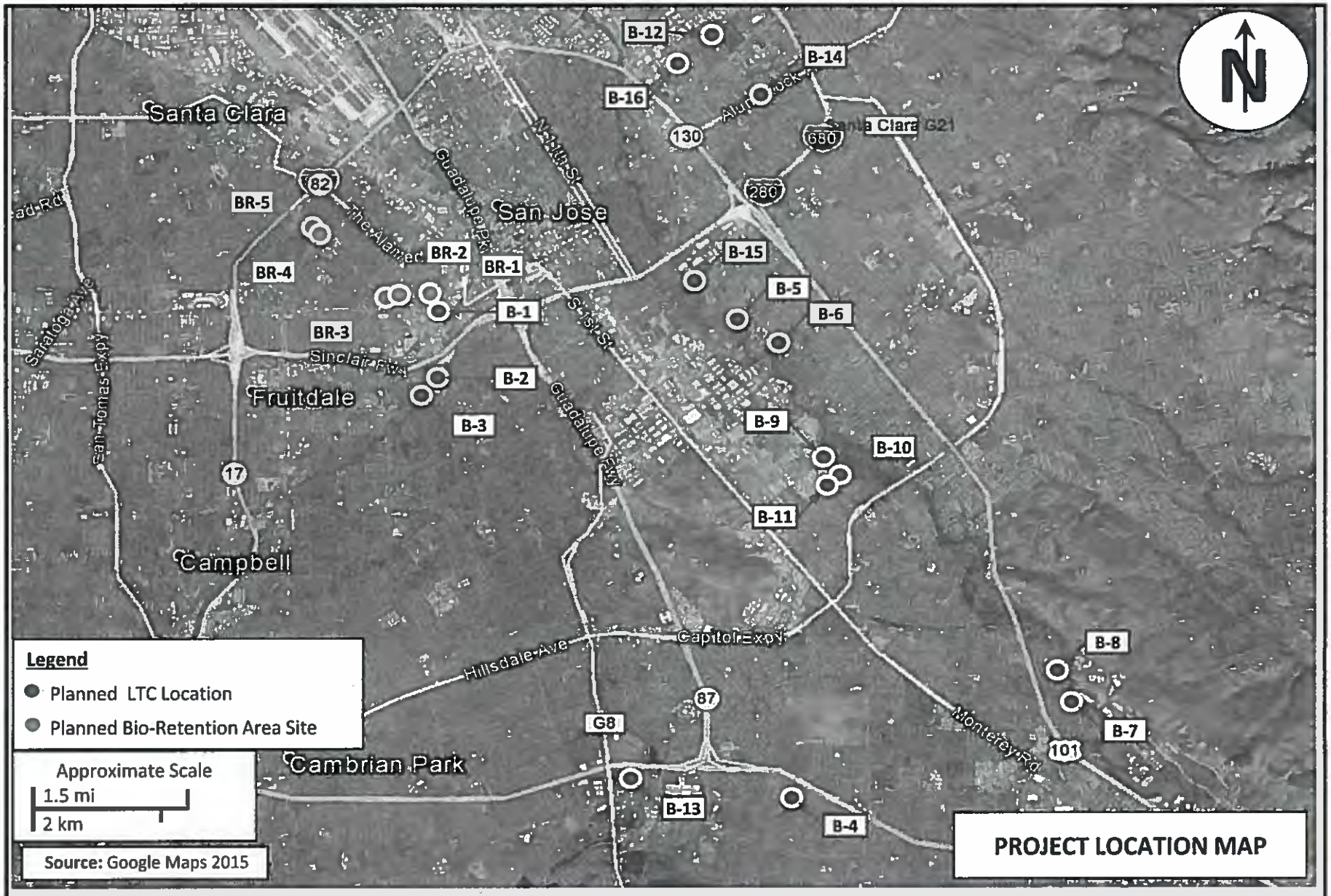
REGISTERED PROFESSIONAL ENGINEER
RAJANI NAIR
NO. 7117
6/30/17
CIVIL
STATE OF CALIFORNIA

Michael O'Connell
for BARRY NG
DIRECTOR OF PUBLIC WORKS
Date: 9/18/15

PROJECT MANAGER: HUGGEN ANGELES

ADDRESS: CITY OF SAN JOSE
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION & HYDRAULIC SERVICES
200 E. SANTA CLARA STREET, 6TH FLOOR
SAN JOSE, CA 95113

TELEPHONE: (408) 975-7482



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LARGE TRASH COLLECTION SYSTEM (PHASE 1)
SAN JOSE, CALIFORNIA

JOB NO.: 2013-110-SO2	PLATE NO.: 1

LETTER 1 OF 2
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The dewatering system plans shall be in sufficient detail to indicate power source, sized of pumps, piping, appurtenances, placement of wells, and the ultimate disposal point of the water; and to permit the Engineer to review the overall completeness and effectiveness of the proposed system. The submittal shall also show means of evaluating drawdown time in real-time (e.g. piezometers). Review of the dewatering plans by the Engineer in no way relieves the Contractor of complete responsibility for providing effective and safe dewatering of the construction areas. The control of groundwater shall be such that softening of the bottom of excavations or formation of "quick" conditions or "boils" do not occur. Dewatering systems shall be designed and operated to prevent removal of natural soils. Dewatering system submittal shall demonstrate coordination with the contractor designed shoring and bracing method and submittal, and the removal and replacement of unsuitable soil, if required.

If a well point system is deemed by the Contractor to be required, the Contractor shall submit a well design to the Engineer for acceptance. Said well design shall be prepared by a California Registered Geotechnical Engineer or California Registered Civil Engineer qualified and experienced to perform such designs. **The Contractor shall obtain any necessary permits for construction and destruction of the wells including any permits necessary from the Santa Clara Valley Water District.**

Groundwater pumping shall not remove fines from below grade. Wells shall be cased, and filter(s) shall be provided to prevent such pumping of fines. If any dewatering well pumps out fines, pumping shall be terminated and a new well shall be properly constructed at a different location with a revised design which eliminates the pumping of fines.

Effluent from dewatering shall be discharged directly into existing sanitary manholes, where said sewer system is in operating condition. The Contractor shall be responsible for obtaining any permits required to discharge effluent into sanitary sewer system. Discharge of effluent from dewatering to the storm drain system is not permitted.

Contractor shall perform a pre-construction and post-construction survey of any structures and/or foundations located within a 2:1 plane extending from the bottom of the excavation to the surface. Contractor shall monitor existing structures and/or foundations for shifting, settlement, or damage resulting from the construction activities, including dewatering and shoring.

Dewatering wells may require portable generators and security personnel monitoring during non construction periods shall be furnished by the Contractor at no additional cost to the City.

Payment for compliance with this section shall be deemed included in the installation of HDS, Flow Diversion Vaults and various other items of the work and no additional compensation will be allowed therefor.

SECTIONS 1303 THROUGH 1304
NO SPECIAL PROVISIONS

SECTION 1305
PIPELINE STRUCTURES

STORM WATER HYDRODYNAMIC SEPARATOR DEVICE

1305-1 GENERAL - The Contractor shall furnish all labor, equipment and materials necessary to install the Hydrodynamic Separator device(s) (HDS) and appurtenances specified in the Drawings and these specifications.

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1305-2 QUALITY ASSURANCES

A. Inspection

All components shall be subject to inspection by the engineer at the place of manufacture and/or installation. All components are subject to rejected or identified for repair if the quality of materials and manufacturing do not comply with the requirements of this specification. Components which have been identified as defective may be subject for repair where final acceptance of the component is contingent on the discretion of the Engineer.

B. Warranty

The manufacturer shall guarantee the HDS components against all manufacturer originated defects in materials or workmanship for a period of twelve (12) months from the date the components are delivered for installation. The manufacturer shall upon its determination repair, correct or replace any manufacturer originated defects advised in writing to the manufacturer within the referenced warranty period. The use of HDS components shall be limited to the application for which it was specifically designed.

C. Manufacturer's Performance Certificate:

The Contractor shall submit to the Engineer, for review, the HDS "Manufacturer's Performance Certification" certifying that each HDS is capable of achieving 100% removal of all trash 5mm or greater in size as the specified flow rate. The certification shall be supported by independent third-party research.

1305-3 SUBMITTALS

A. Shop Drawings

The contractor shall prepare and submit shop drawings in accordance with **Section 6-3 Material Submittal List** of these specifications. The shop drawings shall detail horizontal and vertical dimensioning, design calculations, reinforcement and joint type and locations. All drawings shall bear the stamp and signature of the Registered Professional Engineer.

1305-4 MATERIALS AND DESIGN

A. Housing unit of HDS device shall be constructed of pre-cast or cast-in-place concrete. Precast concrete components shall conform to applicable sections of ASTM C478, ASTM C857 and ASTM C858 and the following

1. Concrete shall achieve a minimum 28-day compressive strength of 4,000 pounds per square-inch (psi);
2. Unless otherwise noted, the precast concrete sections shall be designed to withstand lateral earth and AASHTO H-20 traffic loads;
3. Cement shall be Type III Portland Cement conforming to ASTM C150;
4. Aggregates shall conform to ASTM C33;
5. Reinforcing steel shall be deformed billet-steel bars, welded steel wire or deformed welded steel wire conforming to ASTM A 615, A 185, or A 497.
6. Joints shall be sealed with preformed joint sealing compound conforming to ASTM C990.
7. Shipping of components shall not be initiated until a minimum compressive strength of 4,000 psi is attained or five (5) calendar days after fabrication has expired, whichever occurs first.

B. Internal Components and appurtenances shall conform to the following:

1. Screen and support structure shall be manufactured of Type 316 and 316L stainless steel conforming to ASTM F1267-01;
2. Hardware shall be manufactured of Type 316 stainless steel conforming to ASTM A320;
3. Fiberglass components shall conform to the National Bureau of Standards PS-15 and coated with an isophalic polyester gelcoat;
4. Access system(s) conform to the following:
    a. Manhole castings shall be designed to withstand AASHTO H-20 loadings and manufactured of cast-iron conforming to ASTM A48 Class 30.
    b. Manhole covers shall conform to City of San Jose Standard Detail D-10.

1305-5 PERFORMANCE

A. REMOVAL EFFICIENCIES

1. The HDS shall be capable of capturing and retaining 100 percent of pollutants greater than or equal to 5 mm regardless of the pollutant's specific gravity (i.e.: floatable and neutrally buoyant materials) for flows up to the device's rated-treatment capacity. The HDS shall be designed to retain all previously captured pollutants addressed by this subsection under all flow conditions.

3. The HDS shall be capable of capturing and retaining total petroleum hydrocarbons. The HDS shall be capable of achieving a removal efficiency of 92 and 78 percent when the device is operating at 18 and 35 percent of its rated-trash flow capacity. These removal efficiencies shall be based on independent third-party research for influent oil concentrations representative of storm water runoff (20 ± 5 mg/L). The HDS shall be greater than 99 percent effective in controlling dry-weather accidental oil spills.

B. HYDRAULIC CAPACITY

1. The HDS shall maintain the peak conveyance capacity of the drainage network as defined by the Engineer without creating unacceptable HGL impacts to upstream structures.

2. It may be necessary to provide a separate diversion structure to accommodate multiple units or to reduce the peak flow HGL. Such diversion structure shall be designed by the manufacturer and shall meet the same requirements provided in Section 1305-9.

C. STORAGE CAPACITY

1. The HDS shall be designed with a sump chamber for the storage of captured trash and sediments and other negatively buoyant pollutants in between maintenance cycles. The minimum storage capacity provided by the sump chamber shall be in accordance with the volume listed in Table 1. The boundaries of the sump chamber shall be limited to that which do not degrade the HDS's treatment efficiency as captured pollutants accumulate. The sump chamber shall be separate from the treatment processing portion(s) of the HDS to minimize the probability of fine particle re-suspension.

2. The sump chamber shall be accessible for maintenance from above ground through a clear opening at least 20" in diameter. Units requiring confined space entry for expected maintenance activity are not acceptable.

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3. The HDS shall be designed to capture and retain Total Petroleum Hydrocarbons generated by wet-weather flow and dry-weather gross spills. The minimum storage capacity provided by the HDS shall be in accordance with the volume listed in Table 1.

1305-6 FIBERGLASS INLET AND OUTLET FLUMES - The inlet and outlet conduit between the HDS unit and the flow diversion box shall be made of fiberglass flumes per Project Plans and manufactured by Contech Engineered Solutions or approved equal.

1305-7 HANDLING AND STORAGE - The Contractor shall follow manufacturer's procedures and recommendations for pick up, handling, and installation of Hydrodynamic Separators.

1. The contractor shall exercise care in the storage and handling of the HDS components prior to and during installation. Any repair or replacement costs associated with events occurring after delivery is accepted and unloading has commenced shall be born by the contractor.

1305-8 INSTALLATION

1. The HDS shall be installed in accordance with the manufacturer's recommendations and related sections of the contract documents. The manufacturer shall provide the contractor installation instructions and offer on-site guidance during the important stages of the installation as identified by the manufacturer at no additional expense. A minimum of 72 hours notice shall be provided to the manufacturer prior to their performance of the services included under this subsection.

2. The contractor shall fill all voids associated with lifting provisions provided by the manufacturer. These voids shall be filled with non-shrinking grout providing a finished surface consistent with adjacent surfaces. The contractor shall trim all protruding lifting provisions flush with the adjacent concrete surface in a manner, which leaves no sharp points or edges.

3. The contractor shall remove all loose material from inside the HDS prior to the transfer of operational responsibility to the City.

TABLE 1

Storm Water Hydrodynamic Separator Treatment Device
Hydraulic and Storage Capacities

	Minimum Sump Storage Capacity (yd^3)	Minimum Oil Storage Capacity (gal)
4' diameter unit	0.5	47
5' diameter unit	1.45	92
6' diameter unit	1.6	146
8' diameter unit	4.25	320
10' diameter unit	5.6	490
12' diameter unit	8.1	792

All HDS structures shall be provided a foundation blanket of two (2) to three (3) feet of Class I Bedding Material as specified in Section 1301-2.1, "Bedding," of the Standard Specifications. The limit of the foundation blanket shall extend a minimum of six (6) inches beyond the outside walls of the manhole structure, or more, as required to provide a stable working foundation.

Contractor shall install the weir wall, swale transition, and rounded outlet pipe entrance within the flow diversion vault, as noted in Section 51 of these Special Provisions. The lines and grades of the swale

transition and the rounded outlet pipe entrance will be directed by the manufacturer of the hydrodynamic separator and the Project Engineer in the field.

1305-9 PRECAST FLOW DIVERSION VAULT

DESCRIPTION

The manufacturer of the Diversion Vault shall be Contech Engineered Solutions or approved equal. The Contractor shall furnish and install the Flow Diversion Vault as a component of the trash capture system, complete and operable as shown and as specified herein, in accordance with the requirements of Section 51, Concrete Structures, and Section 52, Reinforcement of Standard Specification, these Special Provisions, and the Project Plans.

The Diversion Vault shall consist of an underground precast structure that diverts all stormwater flows up to the design flow rate into the trash capture unit, collects stormwater from the trash unit, and returns it to the stormwater drainage conveyance. Flows above the design flow rate shall bypass directly into the stormwater drainage conveyance without entering the trash capture unit. This shall be accomplished by means of an angled weir wall within the vault as shown on the plans, along with flow channels that serve to minimize sedimentation within the vault.

PRECAST CONCRETE VAULT COMPONENTS

Precast concrete vault shall be provided according to ASTM C857 and C858. The vault shall be designed to bypass flows in excess of the Water Quality Flow Rate shown on the plans around the treatment chamber. Vault joint sealant shall be Conseal CS-101 or approved equal.

Interior concrete weir walls shall be cast in place concrete, doweled to the exterior walls as shown in the plans.
Frames and covers shall be gray cast iron and shall meet AASHTO H-20 loading requirements, and shall be provided according to ASTM A48. Frames and Covers shall meet City of San Jose standard D-10 and display the words "Storm Sewer".

Hatches, if required, shall be aluminum or stainless steel frame and covers. Covers shall have diamond plate finish. Each door to be equipped with a recessed lift handle. Doors shall meet H-20 loading requirements for incidental traffic, at a minimum.

Steps shall be constructed of copolymer polypropylene conforming to ASTM D-4101. Steps shall be driven into preformed or drilled holes once concrete is cured. Steps shall meet the requirements of ASTM C-478 and AASHTO M-199. The ½" Grade 60 deformed reinforcing bar shall meet ASTM A-615.

Ladders shall be constructed of aluminum and steel reinforced copolymer polypropylene conforming to ASTM D-4101. Ladder shall bolt in place. Ladder shall meet all ASTM C-497 load requirements. Ladders provided upon request or where required.

CONTRACTOR PROVIDED COMPONENTS

All contractor-provided components shall meet the requirements of this section, the plans specifications and contract documents.

Crushed rock base material shall be six-inch minimum layer of ¾-inch minus rock. Compact undisturbed sub-grade materials to 95% of maximum density at +/-2% of optimum moisture content. Unsuitable material below sub-grade shall be replaced in accordance to Section 1301-8, "Unsuitable Soil Conditions" of these project specifications.

Concrete shall have an unconfined compressive strength at 28 days of at least 3000 psi, with ¾-inch round rock, a 4-inch slump maximum, and shall be placed within 90 minutes of initial mixing.

Silicone Sealant shall be pure RTV silicone conforming to Federal Specification Number TT S001543A or TT S00230C or Engineer approved.

Grout shall be non-shrink grout meeting the requirements of Corps of Engineers CRD-C588. Specimens molded, cured and tested in accordance with ASTM C-109 shall have minimum compressive strength of 6,200 psi. Grout shall not exhibit visible bleeding.

Backfill and bedding materials shall conform to Section 26 "Aggregate Bases" and 1301-8, "Unsuitable Soil Conditions" of this project specifications and the project plans.

EXECUTION

Set precast vault on Class I bedding stabilization material that has been placed in maximum 12-inch lifts, loose thickness, and compacted to at least 95-percent of the maximum dry density as determined by the standard Proctor compaction test, ASTM D698, at moisture content of +/-2% of optimum water content. Vault floor shall slope 1/2 inch maximum across the width and slope downstream 1 inch per 12 foot of length. Vault top finish grade shall be even with surrounding finish grade surface unless otherwise noted on plans.

Inlet and outlet pipes shall be stubbed in and connected to precast concrete vault according to Engineer's requirements and specifications.

If grout is used, Contractor shall grout all inlet and outlet pipes flush with or protruding up to 2 inches into interior of vault.

BALLAST

When required, ballast shall be placed to the dimensions specified by the engineer and noted on the data block. Ballast shall not encase the inlet and/or outlet piping. Provide 12" clearance from outside diameter of pipes.

1305-10 MANUFACTURER - The manufacturer shall have at least five years history of successful production acceptable to the Engineer. The manufacturer of the HDS and Flow Diversion Vault units shall be Contech Engineered Solutions or approved equal. Trade names and alternatives shall be as specified in Section 6-1.05, "Trade Names and Alternatives," of the Standard Specifications and these Technical Specifications.

1305-11 ACCEPTABLE PRODUCTS - The City has completed an engineering evaluation of Contech Engineered Solutions' Continuous Deflective Separation (CDS) technology for Hydrodynamic Separator and Flow Diversion Vault units (LTC Devices) shown in the plans including performance, hydraulic capacity, installation footprint, and maintenance requirements. **If the Contractor elects to propose an alternative product for the LTC Devices, the following is required:**

1. The contractor must submit the proposed approved equal substitution to the City at least 10 working days before the scheduled bid opening to the Project Manager.
    a. Submittals shall be delivered to the City at the required location, before the specified date and time. The City will not accept late submissions.

b. The City reserves the right to verify the accuracy of all the information submitted by the Contractor. If any material inaccurate information is discovered in the submittal, the corresponding Contractor will be precluded from the bidding process.
c. All submittals will be reviewed for their responsiveness and completeness. Any submittal that is incomplete in any material respect may be deemed non-responsive and may be rejected in its entirety.
d. The City reserves the right to waive informalities or request additional information.

2. The substitution request must include complete engineering details to allow the City to fully evaluate the alternative product before bids are submitted.

    a. Location of at least 2 sites utilizing the 5mm capture system that have operated successfully for at least 2 years.
    b. Hydraulic Grade Line analysis stamped by a California PE.
    c. Complete maintenance requirements.
    d. Complete description of the system demonstrating a proven design capable of 100% capture of 5mm particles.

3. The City will evaluate the engineering details and consider whether the proposed substitution would be consistent with the City's maintenance program. The City will make a determination on any proposed substitution requests received within the required time. Approved substitutions will be included in an Addendum issued in accordance with the City Standard Specifications.

Installation of the hydrodynamic separator and flow diversion vault requires special equipment that has adequate lifting capacity to unload the precast components. The approximate weight of the heaviest component is 60,000 lbs.

The frames and covers for the hydrodynamic separator units, and the flow diversion vault are furnished by the Contractor at no additional cost to the City.

Payment shall be made as specified in the Standard Specifications, except as modified herein. Payment for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in this section, supply, delivery and installation of hydrodynamic separators, flow diversion vaults, weir walls, removal and replacement of chain link fence per Project Plans, storm and sanitary sewage flow diversions, removal of existing manholes, all connections to new or existing pipelines, replacement of sanitary sewer lines, adjusting existing manholes to new grade, new driveways, remove and replace driveways, driveway restoration and widening, sanitary sewer plug installation and removal, concrete collar, frames and covers, bedding, controlled density fill, backfill, geotextile fabric, and all surface restoration, including AC deep lift and AC surface courses and bituminous seals per Project Plans, PCC surface including pads, driveways, curb & gutter, and sidewalk, grading and landscaping as shown on the plans, specified in the Standard Specifications and these Technical Specifications, and as directed by the Engineer shall be deemed included in the price paid for each respective hydrodynamic separator, and no additional compensation will be allowed therefor.

Payment will be made under:

Installation of Hydrodynamic Separator with Flow Diversion Vault near the Intersection of Story Road and Remillard Court (Location 1) (Include Surface Restoration)	***- Per Lump Sum***

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Installation of Hydrodynamic Separator with Flow Diversion Vault near the Intersection of Roberts Avenue and Oswego Drive (Location 2) (Include Surface Restoration) - ***Per Lump Sum***

Installation of Hydrodynamic Separator with Flow Diversion Vault near the Intersection of Lucretia Avenue and Winifred Drive (Location 3) (Include Surface Restoration) - ***Per Lump Sum***

Installation of Hydrodynamic Separator with Flow Diversion Vault near the Intersection of Lewis Road and Lone Bluff Way (Location 4) (Include Surface Restoration) - ***Per Lump Sum***

Installation of Hydrodynamic Separator with Flow Diversion Vault near the Intersection of Balfour Drive and Lone Bluff Way (Location 5) (Include Surface Restoration) - ***Per Lump Sum***

Installation of Hydrodynamic Separator with Flow Diversion Vault along Coyote Road across Fullerton Court (Location 6) (Include Surface Restoration) - ***Per Lump Sum***

1305-12 STORM INLETS - The depth of the inlet box shall be as shown on the City's Standard Detail. If this cannot be achieved due to utility conflict, the Contractor shall increase the depth of the lateral and inlet box, as directed by the Engineer, at no additional cost. Contractor shall obtain the Engineer's approval where slopes of less than 2% are proposed due to conflict of existing utilities and/or any other reasons.

The cost of installing new inlets and/or removing and replacing existing curb and gutter up to five feet from both ends of the new inlet, including any existing curb and gutter markings restoration, shall be deemed included in the price paid for the new inlet. If at the request of the Engineer, curb and gutter removal and replacement exceed the five feet limit described above, then payment shall be made under the "Additional Remove & Replace Curb and Gutter, Type A2 (Include Base)" pay item for the curb and gutter, and any markings restoration, in excess of the five feet limit only.

Frames, covers and grates casting for all manholes and new storm inlets shall conform to Detail D-10, "Standard Manhole Frame & Cover," Detail D-5, "Regular Hooded Inlets," and Detail D-6, "Standard Large Flat Grate Inlets" of the Standard Details and details on the plans. Metal castings for frames, covers and grates shall conform to the requirements of Section 75, "Miscellaneous Metals," of the Standard Specifications and these certifications:

1. Foundry casting detail of Manhole Frame and Cover Casting.
2. Metallurgical/Chemical analysis of cast iron (initial and semi-annually).
3. Test results with duplicate "B" test bar (ASTM A48 Class 35B, initially and semi-annually).
4. Certificate of Compliance with each shipment to supplier and/or Contractor for transmittal to Inspector on individual projects.

For castings produced outside the United States, the following additional condition will apply:

1. Copy of the State of California test release form.
2. Or test reports 2 and 3 above conducted by a certified independent laboratory located in the State of California.

All storm inlet hoods shall be engraved with language that states "No Dumping! Flows To Bay" onto the hood. Refer to project plans for detail. Contractor shall obtain the engraved inlet hood within eight weeks

of contract award. If the contractor cannot obtain the engraved inlet hood within this time frame, a standard hood with stencil shall be installed. The contractor shall provide documentation from a minimum of two foundries that this time frame cannot be met.

Payment for engraved language that states: "No Dumping! Flows To Bay" in storm inlets shall be included in the contract unit price for each respective inlet, and no additional compensation will be made therefor.

The Contractor shall submit to the Engineer, for review, the metal castings for frames, covers and grates to be used on this project.

All storm inlets shall be cast-in-place. Portland Cement for Cast-In-Place storm inlets shall be Type II Modified or Type V cement per Section 90-2, "Materials," of the Standard Specifications.

Contractor shall install plywood platforms in existing manholes to keep dirt and debris out of sewer lines during construction as shown in Detail D-16, "Cover Plates for Manhole Channels," of the City's Standard Details.

The depth of the inlet box shall be determined by the Contractor prior to construction. The cost of removing existing inlets shall be deemed included in the price paid for the new inlet.

Payment for removing and replacing existing inlets shall include full compensation for furnishing all labor, equipment, tools, excavation, grading, compaction, backfill material, materials required to conform around existing pavement, connections to new and existing pipelines, removing and replacing existing curb and gutter up to five feet from both ends of a new inlet, frames and covers shall be considered as included in the price for each respective inlet and no additional compensation will be allowed therefor.

Payment will be made under:

Remove and Replace Large Hooded Inlet	***- Per Each***

1305-13 MANHOLES - New manholes shall conform to City Standard Detail D-12 "Concentric Manhole, 24" to 42" and D-13, "Concentric Manhole, 48" to 72" Diameter Pipe" of the Standard Details and shall be installed in accordance with the requirements of Section 1305 of the Standard Specifications.

Payment for connecting new laterals or new pipe to new manholes shall be deemed included in the unit price paid for manholes.

Precast concrete manhole sections shall conform to Section 1305-3.1.2, "Precast Concrete," of the Standard **Specifications, and shall be submitted to the Engineer for review. Precast concrete manhole bases shall not be used.** Class A concrete with Type V or Type II modified cement shall be used for manhole bases, manhole sections, and all other concrete sanitary sewer structures on this project.

All manhole structures shall be provided a foundation blanket of twelve (12) inches minimum of Class I Bedding Material as specified in Section 1301-2.1, "Bedding," of the Standard Specifications. The limit of the foundation blanket shall extend a minimum of six (6) inches beyond the outside walls of the manhole structure, or more, as required to provide a stable working foundation.

Manhole Frames and Covers

Frames, covers and grates casting for City Standard manhole shall conform to Detail D-10, "Standard Manhole Frame & Cover," Detail D-5, of the Standard Details. Metal castings for frames, covers and

grates shall conform to the requirements of Section 75, "Miscellaneous Metals," of the Standard Specifications and these certifications:

1. Foundry casting detail of Manhole Frame and Cover.
2. Metallurgical/Chemical analysis of cast iron (initial and semi-annually).
3. Test results with duplicate "B" test bar (ASTM A48 Class 35B, initially and semi-annually).
4. Metal castings produced outside the United States shall possess a copy of the State of California test release form or test results conducted by a certified independent laboratory located in the State of California.

For castings produced outside the United States, the following additional condition will apply:

1. Copy of the State of California test release form.
2. Or test reports 2 and 3 above conducted by a certified independent laboratory located in the State of California.

The Contractor shall submit to the Engineer, for review, the metal castings for frames, covers and grates to be used on this project.

Contractor shall install plywood platforms in existing manholes to keep dirt and debris out of sewer lines during construction as shown in Detail D-16, "Cover Plates for Manhole Channels," of the City's Standard Details.

All new manholes shall be waterproofed by applying a coat of sodium silicate, or other approved waterproofing agent, to the interior surfaces. The waterproofing agent shall contain a dark green pigment, and shall not be soluble in water and shall be easily recognizable.
Payment for connecting laterals, and main reconnections and collars to new manhole shall be deemed included in the unit price paid for manhole.

Payment for installation of new storm and sanitary sewer manholes shall include full compensation for furnishing all labor, equipment, tools, excavation, plug and abandon drop inlet, grading, compaction, backfill material, application of waterproofing agent, materials required to conform around existing pavement, connections to new and existing pipelines, frames and covers shall be considered as included in the price for each respective manhole and no additional compensation will be allowed therefor.

Payment will be made under:

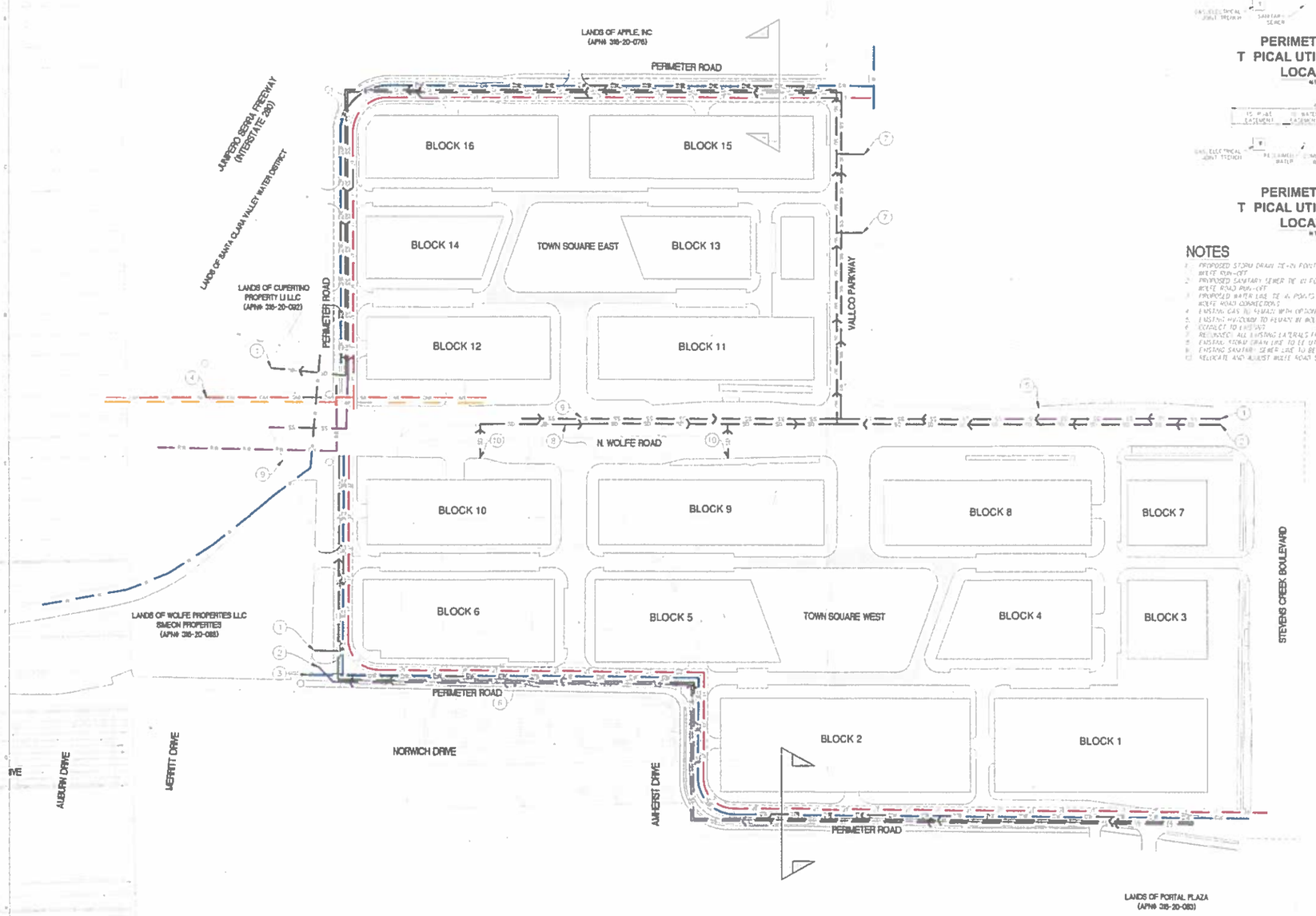
Install Standard Manhole, D-11 (21-inch and Smaller Dia. Pipe) ***- Per Each***

Install Standard Manhole, D-13 (48-inch thru 72-inch Dia. Pipe) ***- Per Each***
(Include H-20 Rated Grated Cover)

SECTION 1306
NO SPECIAL PROVISIONS

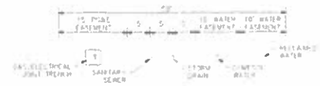
SECTION 1307
ACCEPTANCE TESTS FOR SEWERS

1307-1 GENERAL - The installed sewer pipe shall be tested in accordance with Section 1307, "Acceptance Tests for Sewers," of the Standard Specifications and these Technical Specifications.

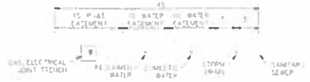


LEGEND

- STORM DRAIN
- SANITARY SEWER
- WATER LINES
- GAS LINES
- COMMUNICATION LINES
- JOINT TRENCH UTILITIES (TIE-IN TO BE COORDINATED DURING PERMIT PROCESS)
- RECLAIMED WATER (SHOWN FOR FUTURE USE)



PERIMETER ROAD
T PICAL UTILIT LA OUT
LOCATION
NTS



PERIMETER ROAD
T PICAL UTILIT LA OUT
LOCATION
NTS

NOTES

1. PROPOSED STORM DRAIN TIE-IN POINTS FOR FUTURE SITE AND WOLFE RUN-OFF
2. PROPOSED SANITARY SEWER TIE IN POINTS FOR FUTURE SITE AND WOLFE ROAD RUN-OFF
3. PROPOSED WATER LINE TIE IN POINTS FOR FUTURE SITE AND WOLFE ROAD CONNECTIONS
4. EXISTING GAS TO REMAIN WITH OPTION OF ROUTING OVER TUNNEL
5. EXISTING HYDRANT TO REMAIN IN WOLFE ROAD
6. CONNECT TO EXISTING
7. RECONNECT ALL EXISTING LATERALS FROM ADJACENT SITE
8. EXISTING STORM DRAIN LINE TO BE UTILIZED
9. EXISTING SANITARY SEWER LINE TO BE UTILIZED
10. RELOCATE AND ADJUST WOLFE ROAD SD INLETS AND LATERALS

THE HILLS
at Vallco

OWNER: VALLCO PROPERTY OWNER LLC
2662 SAND HILL ROAD SUITE 341 MENLO PARK CA 94025
T 650-344-7939

ARCHITECTURE: RAFAEL VIÑOLY ARCHITECTS
55 LINDEN STREET NEW YORK, NY 10013
T 212-924-8000

LANDSCAPE ARCHITECTURE: OLIN PARTNERSHIP, LTD
109 S. INDEPENDENCE HALL W SUITE 1120 PHILADELPHIA PA 19106
T 215-446-0239

CIVIL: SANDIS CIVIL ENGINEERS SURVEYORS PLANNERS INC
1700 S. SHORELINE STE 10 SUITE 300 CAMPBELL CA 95008
T 408-436-0910

TRANSPORTATION ENGINEERING: ARUP NORTH AMERICA, LTD
560 MISSION STREET SUITE 700 SAN FRANCISCO CA 94105
T 415 962 6440

PARKING ENGINEERING: WALTHY DESIGN INC
130 CENTURY CENTER COURT SUITE 600 SAN JOSE CA 95112
T 408 286 7616

SUSTAINABILITY ADVISORS: BRIGHTWORKS
1624 PRAIRIE ST EMERYVILLE CA 94612
T 415-880-6970

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REVITALIZATION PROPOSAL

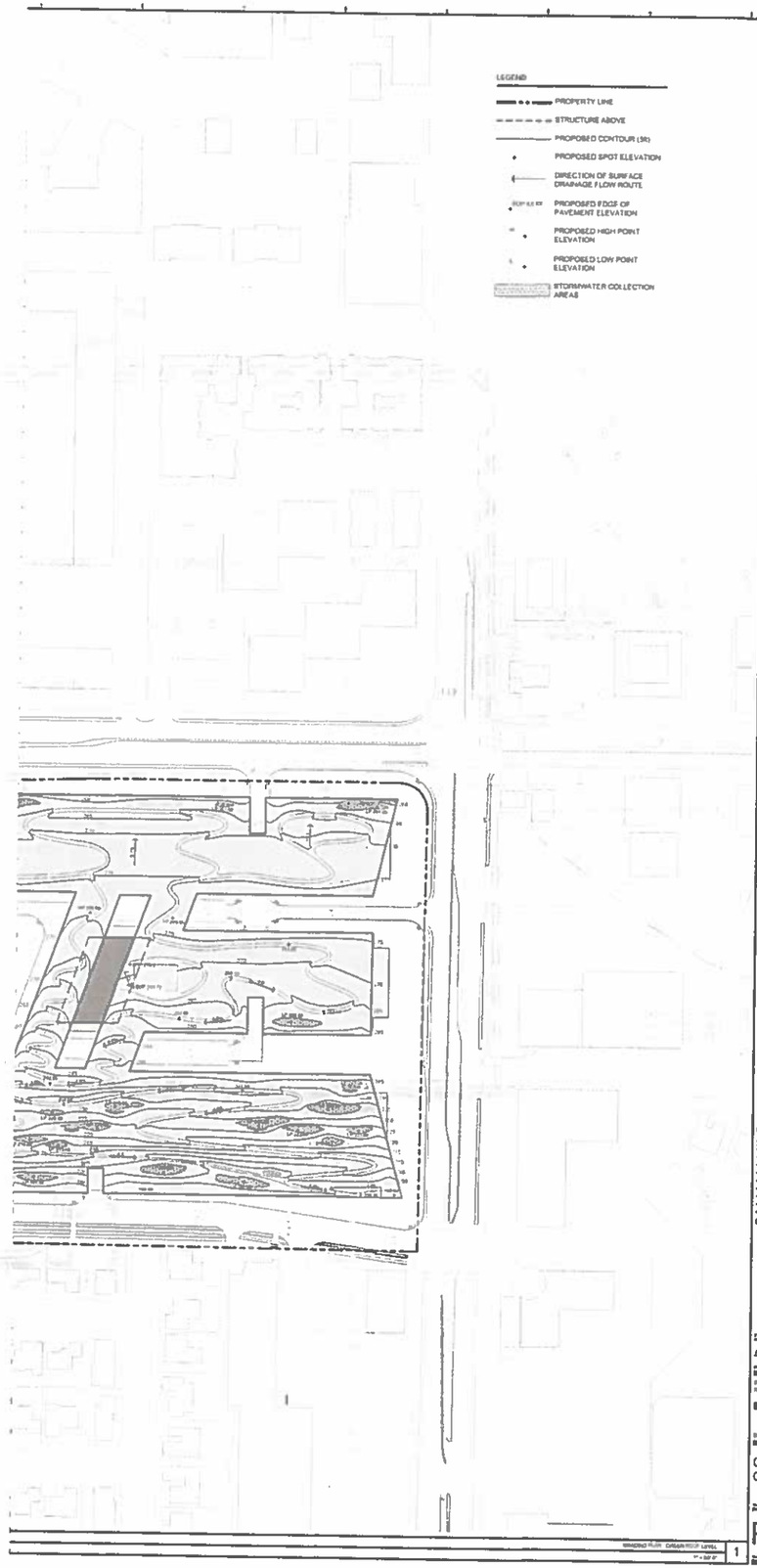
REV	DESCRIPTION	DATE
REV 0	PLANNING APPLICATION	09/07/2015

ARCHITECT'S PROJECT NUMBER: 7 NAME
PROJECT NUMBER: PLANNING APPLICATION
IF THIS DRAWING IS NOT 36"x48" IT IS A REDUCED PRINT REFER TO GRAPHIC SCALE
0 50' 100'
SCALE: 1"=50'

SITE UTILITY PLAN - STREET LEVEL

P-0506

LETTER 1 OF 2
43 OF 44



THE HILLS at Valico

OWNER: VALCO PROPERTY OWNER LLC
3000 SAND HILL ROAD SUITE 3-H1 MENLO PARK, CA 94025
T: 650-344-7888

ARCHITECTURE: KOA AIA; STACEY ARCHITECTS
30 HUDSON STREET 1 NEW YORK, NY 10013
P: 212-994-5700

LANDSCAPE ARCHITECTURE: CLIO PARTNERSHIP LTD
150 S. INDEPENDENCE MALL W. SUITE 1125, PHILADELPHIA, PA
T: 215-440-8730

CIVIL: BANDO CIVIL ENGINEERING SURVEYORS PLANNERS, INC.
1960 S. WINCHESTER BLVD. SUITE 200, CAMPBELL, CA 95008
T: 408-836-6900

TRANSPORTATION ENGINEERING: WILLDAN NORTH AMERICA, LTD
600 MISSION STREET SUITE 700 SAN FRANCISCO CA 94105
T: 415-637-9045

PARKING ENGINEERING: WALTER P. MOORE, INC.
333 CESAR CHAVEZ COURT SUITE 600 SAN JOSE, CA 95113
T: 408-362-5600

SUSTAINABILITY CONSULTANT: BUILDINGWORKS
1939 HARRISON ST 9TH OAKLAND, CA 94612
T: 415-552-3000

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REVITALIZATION PROPOSAL

REV	DESCRIPTION	DATE

IF THIS DRAWING IS NOT 30"x42" IT IS A REDUCED PRINT
REFER TO GRAPHIC SCALE

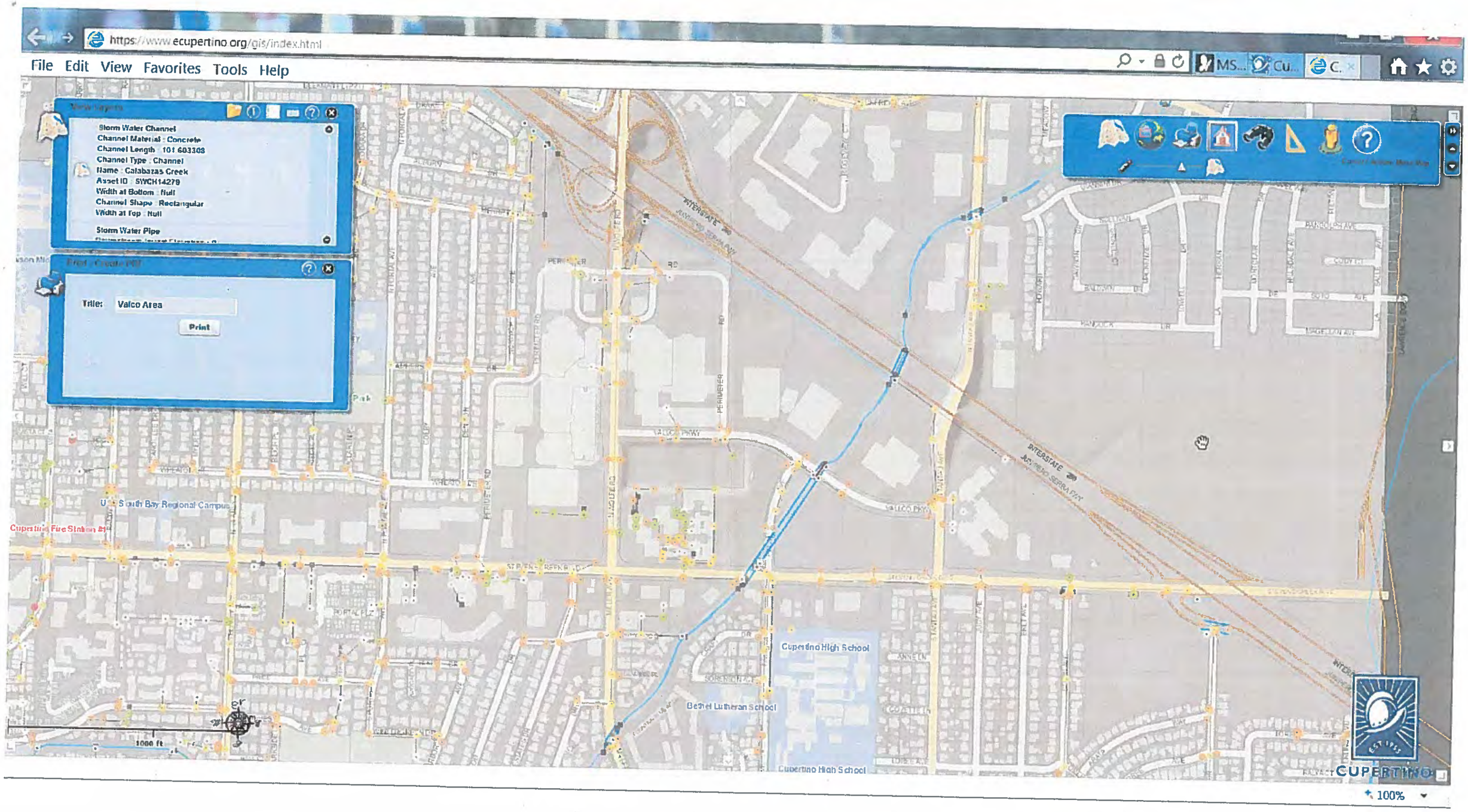
0 40' 80' 160'

SCALE 1" = 80'-0"

GRADING PLAN-
GREEN ROOF LEVEL

P-0502

GRADING PLAN - GREEN ROOF LEVEL 1
1" = 80'-0"


https://www.ecupertino.org/gis/index.html
File Edit View Favorites Tools Help
Storm Water Channel
Channel Material : Concrete
Channel Length : 101.603308
Channel Type : Channel
Name : Calabazas Creek
Asset ID : SWCH14279
Width at Bottom : Null
Channel Shape : Rectangular
Width at Top : Null
Storm Water Pipe
Title: Valco Area
Print
Cupertino High School
Bethel Lutheran School
Cupertino Fire Station #1
1000 ft
100%

LETTER 1 OF 2 TRANSCRIPTION
THE HILLS AT VALLCO
ENVIRONMENTAL IMPACT REPORT SCOPING MEETING
NOVEMBER 10, 2015

Scope for E.I.R. – Notice of Preparation
"The Hills at Vallco"
City of Cuperino Department of Community Development.

Dear Sirs,

I would like to suggest that a stormwater trach and sediment removal device be installed on the storm sewer lines leading out from "The Hills at Vallco." The soil on the green roof is potentially erodible into Calabasas Creek, as well as litter going down the catch basins. It will also help the City of Cupertino fulfill the EPA's "Clean Water Act." This Act is part of a NPDES permit, and let me be clear that I believe that Cupertino is in compliance.

An example of a stormwater treatment device is the "CDS hydrodynamic separator" by Centeches. Many of these have been installed by the City of San Jose. A hydrodynamic separator can be installed in place of a planned Manhole. The cost of installing on proactively would be less than installing one in reactively. In November, 2014, the City of San Jose had to build and act reactively when Baykeeper intended to sue under the Clean Water Act.

In conclusion, being proactive on not just "The Hills at Vallco," but all the developments affecting the stormwater system in the City of Cupertino will make it a great place to live for future generations.

Ray Martin
[redacted]

Attachments:
EPA Sheets
Contech Sheets
Baykeeper lawsuit sheets
Example of San Jose Plans
Utility Plans

LETTER 2 OF 2
1 OF 7

THE NUMBERS: WHY THE COUNCIL MUST VOTE NO ON THE HILLS AT VALLCO

Dear Councilmember,

This letter is to present the Council with compelling traffic and greenhouse gas impact numbers, CEQA job-housing imbalance lawsuit exposure and significant revitalization failure risks that demand the Council disapprove rezoning Vallco for the proposed Hills at Vallco office build; and place a moratorium on all rezoning within the city that increases office space.

The 2M sf of office build proposed for The Hills at Vallco will increase the total number of employees who work in Cupertino and commute from other cities to over 47,000, nearly doubling the population of Cupertino every work day and making Cupertino's growth imbalance one of the primary causes of traffic congestion, transportation infrastructure cost and air pollution in the Bay Area. The exhaust from these commuter's vehicles alone will produce 700 tons of CO_2 greenhouse gas daily. 20,000 new commute vehicles will converge on Wolfe Rd. from Apple Campus 2 and the Hills at Vallco office space, alone. The Hwy 280 interchange at Wolfe even when doubled in ramp lanes will only be capable of handling 1400 to 3600 of these vehicles per hour during commute hours, meaning the vast majority of the new commute traffic will be directed into the neighborhoods of Cupertino and Sunnyvale. The severe nature of this is owing to the unnecessary office build at the Hills at Vallco. Adjusting the General Plan to accommodate the Hills office build and its 10,000 new office jobs without a counter-balancing increase in housing exposes Cupertino to the same court mandated job-housing balance imposed on the City of San Jose's General Plan Amendment this year, where the court mandated one home for each office space job created. Given the enormous office build at Apple Campus 2, any mixed use revitalization of Vallco should be retail-residential only not retail-office and be incented to housing Cupertino-based employees, particularly at Apple Campus 2, to reduce traffic congestion in the city. I am proposing a method to accomplish this.

TRAFFIC NUMBERS – IMPACT OF 2M SF OF OFFICE SPACE

The proposed Empire State Building equivalent OFFICE SPACE FOR THE HILLS AT VALLCO WILL LIKELY ADD 10,000 OR MORE COMMUTE VEHICLES TO WOLFE RD. This is based on the Silicon Valley standard 200 sf (square feet) and one commute vehicle per employee. The Empire State Building (2.1M sf) is the second largest office building in the U.S. following the Pentagon. It houses 1000 businesses collectively employing 23,000 workers[1].

To visualize the traffic impact, note that 10,000 commute vehicles parked in two lanes of Hwy 280 with 5 feet gridlock spacing extends 20 miles on its own (one car each lane every 21 feet), the distance between Wolfe Rd. and Crystal Springs Reservoir. Add another 10,000 commute vehicles from the adjacent new Apple Campus 2 and the two-lane congestion doubles to 40 miles, the distance from Wolfe Rd. to San Francisco. THIS 40 MILES IN TWO LANES OF NEW COMMUTER VEHICLES WILL ENTER AND DEPART THE CITY OF CUPERTINO AT WOLFE RD. DURING COMMUTE HOURS EVERY WORK DAY, ABHORRENTLY ADDING TO THE TRAFFIC CONGESTION THAT ALREADY EXISTS.

The Hwy 280 interchange at Wolfe Rd. is woefully incapable of handling the added commuters, even if onramps are doubled from one to two lanes. The State of Califomia sets its metering lights to allow 350-900 vehicles per hour to enter a freeway per onramp lane[2]. The rate depends on freeway traffic congestion. Assuming the state expands the onramps in each direction to two lanes, the Wolfe Rd. interchange will only be capable of releasing 1400 to 3600 vehicles per hour onto Hwy 280 when metering lights are on. Apple Campus 2 will need all of this to handle its 10,000 vehicles over the 4 – 7 pm commute period, excluding all other existing traffic and eventual new traffic from

Main Street and Vallco retail. ADDING 10,000 COMMUTE VEHICLES FROM THE PROPOSED HILLS AT VALLCO OFFICE SPACE WILL REQUIRE 5.5 – 14 HOURS TO VACATE THE PARKING LOTS OF JUST THE APPLE CAMPUS 2 AND HILLS AT VALLCO OFFICES ONTO THE FREEWAY ALONE DEPENDING ON METERING. Obviously, this isn't going to happen. THE BULK OF THE 40 MILES OF TWO-LANE NEW COMMUTE VEHICLES WILL BE DISTRIBUTED THROUGH THE STREETS OF CUPERTINO AND SUNNYVALE, CONSUMING AND GRIDLOCKING EVERY NEIGHBORHOOD THROUGHWAY AS COMMUTERS SEEK FASTEST COMMUTE ROUTES. The increased congestion on Stevens Creek Blvd., De Anza Blvd. and Homestead Rd. in concert with the doubling of traffic flow entering the 280 onramp lanes at Wolfe Rd. will certainly back southbound Hwy 280 traffic from the current backup point near the Hwy 85 interchange into Los Altos Hills on the southbound home commute. THIS WILL MAKE FOOTHILL EXPRESSWAY THE NEW LOGICAL FIRST FREEWAY RELIEF POINT OFF-RAMP FOR SARATOGA, LOS GATOS AND CAMPBELL COMMUTERS, as the currently free right-hand exit-only lane leading to De Anza Blvd on 280, will be fully immersed in the extended 280 congestion zone. THIS WILL CONGEST FOR THE FIRST TIME STEVENS CANYON RD. AND THROUGH STREETS SUCH AS MCCLELLAN RD, BUBB RD., LINDA VISTA DR., HYANNISPORT DR., SANTA TERESA AVE, WILKENSON AVE, COLUMBUS AVE, TERRACE DR., REGNART RD., MONROVIA AND BYRNE AVE IN THE WEST OF BUBB NEIGHBORHOOD.

MASS TRANSIT – NOT A MITIGATING FACTOR

The fully decentralized, fully suburban and vast area in which Silicon Valley homes and workplaces are located make mass transit a non-factor in fighting traffic congestion. THE SOUTH BAY'S LIGHT RAIL AND BUS MASS TRANSIT SYSTEMS OPERATE VIRTUALLY EMPTY BECAUSE THEY PROVIDE NO FIRST MILE / LAST MILE COMMUTE SOLUTION FOR THE VAST MAJORITY OF COMMUTERS. It is inconceivable that such a system could have stops within three blocks of both homes and workplaces for enough commuters to have a measureable impact on traffic. Such mass transit is only feasible for highly urbanized cities such as San Francisco. THERE IS NO FEASIBLE MASS TRANSIT ALTERNATIVE TO MITIGATE THE TRAFFIC CONGESTION PRODUCED BY THE PROPOSED OFFICE SPACE BUILD AT THE HILLS AT VALLCO. Sand Hill's mention of shuttles and VTA traffic mitigation is simply placatory for a problem that has not been addressed and is insolvable through mass transit.

ENVIRONMENTAL IMPACT – CEQA AND ABAG EXPOSURE

BY VIRTUALLY ANY STATE OR REGIONAL ENVIRONMENTAL METRIC, THE CITY OF CUPERTINO SHOULD NOT BE AUTHORIZING ANY REZONE TO OFFICE SPACE, NOW OR INTO THE FORESEEABLE FUTURE. THE COMPLETION OF APPLE'S CAMPUS 2 WILL PUT CUPERTINO'S JOBS-HOUSING RATIO COMPLETELY OUT OF BALANCE. Of the 31,800 people employed in Cupertino only 5100 live here[3], meaning 84% OF CUPERTINO'S WORKFORCE, 26,700 EMPLOYEES, COMMUTE HERE EVERY WORK DAY FROM OTHER CITIES. IN CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) AND ABAG TERMS, CUPERTINO'S GROWTH IMBALANCE IN OFFICE DEVELOPMENT IS A MAJOR CAUSE OF THE COUNTY'S TRAFFIC CONGESTION, TRANSPORTATION INFRASTRUCTURE COSTS AND AIR POLLUTION. With the projected growth of 14,600 Apple employees AT THE COMPLETION OF CAMPUS 2, CUPERTINO JOBS GROWTH WILL SOAR TO NEARLY 46% OVER A 2-3 YEAR PERIOD DURING A PROTRACTED PERIOD WHEN CUPERTINO HOUSING IS GROWING ONLY 1.4% ANNUALLY[3]. Using the same statistics Cupertino-based employees commuting from other cities at that time will reach at least 39,000.

THE PROPOSED OFFICE SPACE AT THE HILLS AT VALLCO IS EQUIVALENT TO NEARLY A QUARTER OF ALL OF THE OFFICE SPACE IN THE ENTIRETY OF DOWNTOWN SAN JOSE[4]. If the 2M sf Hills At Vallco office space is approved and using the 84% statistic, THE NUMBER OF CUPERTINO-BASED EMPLOYEES FROM EXISTING, APPLE CAMPUS 2 AND HILLS AT VALLCO OFFICES COMMUTING FROM OTHER CITIES INTO CUPERTINO EACH WORK DAY WOULD BE EXPECTED TO EXCEED

LETTER 2 OF 2
3 OF 7

47,000, A FLAGRANT CEQA AND ABAG IMBALANCE. IF WE PARKED THAT NUMBER OF VEHICLES ON HWY 280 IN TWO LANES, AS IF THOSE COMMUTING FROM OTHER CITIES WERE WAITING AT A GATE TO ENTER CUPERTINO EACH MORNING, THE VEHICLE BACK-UP WOULD EXTEND 94 MILES, THE DISTANCE FROM WOLFE RD. TO ROUGHLY SANTA ROSA! Assuming an average roundtrip commute of 25 miles and a standard 1.22 lbs CO_2 emissions per mile[5], THE TOTAL CO_2 EMISSIONS FROM THOSE CUPERTINO-BASED EMPLOYEES COMMUTING FROM OTHER CITIES WILL BE OVER 700 TONS DAILY, 150 TONS DUE TO THE APPROVAL OF THE HILLS OFFICE SPACE ALONE.

CCEC V. CITY OF SAN JOSE AND ITS GENERAL PLAN – JOBS-HOUSING IMBALANCE LAWSUIT

The City of Cupertino cannot afford to ignore the environmental impact and job-housing imbalance issues incurred in the community and region by its General Plan and its development projects. In April of this year, a CEQA suit by the California Clean Energy Committee against the City of San Jose successfully over-turned its General Plan for failing to address the jobs-housing imbalance of its planned office space development. THE COURT FAULTED SAN JOSE FOR NOT PLANNING ENOUGH HOUSING TO ACCOMMODATE THE JOBS CREATED BY ITS GENERAL PLAN, PUSHING HOUSING AND TRAFFIC INTO OTHER COMMUNITIES TO ACCOMMODATE THOSE JOBS. THE COURT ORDERED SAN JOSE TO INCREASE ITS HOUSING UNIT ALLOCATION BY THE ENTIRE JOBS-HOUSING IMBALANCE SHORTFALL (109,000 HOMES) AND TO PAY THE ENTIRETY OF THE $300,000 SUIT LEGAL COSTS[6,7]. The proposed Hills At Vallco project and accommodating Cupertino General Plan Amendment exposes Cupertino to the same jeopardy. The city of Cupertino, its schools, infrastructure and lack of available land cannot accommodate the housing needed for the jobs that will be created by the Hills at Vallco, let alone Apple Campus 2. Environmental advocacy groups, such as the California Clean Energy Committee, make it their business to discover and force city jobs-housing balance to minimize regional traffic and pollution. It is inconceivable that the highly publicized and massive office build of the Apple Spaceship campus and The Hills At Vallco proposal / General Plan Amendment are not on the radar screen of these advocacy groups.

ENVIRONMENTAL IMPACT – IS CUPERTINO WORKING ON THE WRONG ISSUES?

THE MOST IMPORTANT TRAFFIC MITIGATING ENVIRONMENTAL IMPACT STATISTIC FOR CUPERTINO IS THE PERCENT OF ITS RESIDENTS WHO WORK IN CUPERTINO. If affordable housing and rents were the primary determinants then one would expect a reasonable number of highly paid engineering professionals at Apple to live here, at least rent. The fact is only 10% do, the same as live 40 miles away in San Francisco[8]. Obviously, other factors play an important role for where people hired in Cupertino opt to live.

Cupertino has long been a one-trick pony community that's main attraction is its excellent schools. Outside of the schools, Cupertino has very few standout features and several significant deficits, most importantly no downtown and the total lack of a social environment for the singles and millennials that compose the majority of the Apple and new Silicon Valley workforce. The significant disconnect between the demographics and lifestyle needs of the workforce of Cupertino, its residents and city offerings is certainly a major reason why Cupertino-based employees choose not to live here. VALLCO STANDS AS THE LAST HOPE FOR CUPERTINO TO CORRECT THIS PROBLEM. IDEALLY, THE REVITALIZATION OF VALLCO SHOULD BE CENTERED ON ATTRACTING THE YOUNGER GENERATION OF SINGLES AND MILLENNIALS WHO WORK HERE WITH THE BEST AND MOST ABUNDANT IN VALLEY OFFERING OF TRENDY AND FULLY ONLINE RESTAURANTS, COFFEE SHOPS, NIGHT CLUBS, SOCIAL MEETING POINTS, RETAIL SHOPS AND ENTERTAINMENT WITH COORDINATED URBAN HOUSING DESIGNED SPECIFICALLY FOR AND EQUALLY ATTRACTIVE TO THE TECHNOLOGY, ACTIVITIES AND LIFESTYLES OF THIS GENERATION...THE MOST COVETED PLACE TO LIVE (AND WALK TO WORK) FOR YOUNG APPLE EMPLOYEES. A vibrant retail center such as this would attract a healthy clientele weeklong and over longer hours, attracting also older generations and families who prefer "happening places" for entertainment and shopping as well. SAND HILL'S

CURRENT PLAN TO REPLACE THE BULK OF THE RETAIL SPACE AT VALLCO WITH HIGH DENSITY OFFICE SPACE TOTALLY DEFEATS THIS POSSIBILITY AND CEMENTS, PERHAPS FOREVER, CUPERTINO'S INABILITY TO REVITALIZE THE CENTER AND INCREASE THE NUMBER OF ITS RESIDENTS WHO WORK HERE.

RISKS THAT OFFICE BUILD WILL PREVENT REVITALIZATION OF VALLCO

The risk factors against a successful revitalization of Vallco through the proposed Hills at Vallco development are extensive, obvious and underscore Sand Hill's inexperience in building and managing such a project. First, there is HIGH RISK THAT BOTH SHOPPERS AND RETAILERS WILL FIND THE HILLS AT VALLCO UNATTRACTIVE DUE TO VASTLY REDUCED RETAIL EMPHASIS (NO LONGER "DESTINATION RETAIL CENTER"), INCUMBERED ACCESS DUE TO HEAVY TRAFFIC CONGESTION AND EXCESSIVE MIXED USE COMPETITION FOR PARKING. These risks are underscored in the letter sent October 9, 2014 to Paul Brophy, Cupertino Planning Commission, by Sears' attorney Ivor Samson in which Sears analysis of the Hills at Vallco proposal forecast lower Sears revenue due to these factors[9]. Indeed, the proposed Hills retail space (discounting that allocated for concert area, public areas and innovation center) is far less than half of the current Vallco retail, and LESS THAN A QUARTER OF THE RETAIL SPACE OF ITS REGIONAL COMPETITOR AT WESTFIELD VALLEY FAIR[10,11,12]. THE HILLS AT VALLCO IS NOT A 'REVITALIZATION OF VALLCO' AS A RETAIL CENTER BUT A TRANSFORMATION TO AN ENORMOUS OFFICE COMPLEX MATCHING IN OFFICE SPACE THE ENTIRE RETAIL SPACE OF VALLEY FAIR, BOTH 2M SF.

Shared parking is a significant and well documented risk for failure of mixed use developments and the risk at The Hills is particularly onerous. THE 10,000 HILLS OF VALLCO OFFICE WORKER VEHICLES REQUIRE MORE PARKING SPACES THAN THE ENTIRETY OF THE WESTFIELD VALLEY FAIR MALL, INCLUDING THE NEW FIVE STORY PARKING STRUCTURE CURRENTLY UNDER CONSTRUCTION. THERE IS MAJOR RISK THAT COMPETITION FOR CONVENIENT, QUICKLY FOUND PARKING SPACE WILL DETRIMENTALLY FRUSTRATE THE HILLS AT VALLCO SHOPPERS. Assuredly, many of the retail parking spaces will be more convenient to office workers than the least convenient multi-story office parking spaces, assuming they are separated and designated as such. IT IS INCONCEIVABLE THAT RETAIL SHOPPERS WILL BE GATE-CHECKED OR GIVEN A PASS TO ENTER ANY RETAIL SHOPPING PARKING AREA TO DISTINGUISH THEM FROM OFFICE WORKERS WHO WILL TAKE THE MAJORITY OF HILLS PARKING SPOTS ON WEEKDAYS PRIOR TO THE OPENING OF MOST RETAIL SHOPS. THERE IS SIGNIFICANT RISK, THEREFORE, THAT WEEKDAY SHOPPERS WILL SUFFER CHRISTMAS-LIKE PARKING FRUSTRATION THROUGHOUT THE YEAR AT THE HILLS BECAUSE OF THE CO-EXISTENCE WITH 2M SF OF OFFICE SPACE. THIS ASSUREDLY WILL DECREASE RETAIL TRAFFIC AND POTENTIALLY DOOM THE RETAIL REVITALIZATION OF THE SITE.

Sand Hill Properties has no experience in building or maintaining the environmentally attractive 30 acre green toupee of The Hills at Vallco. Park maintenance will be a very expensive, budget-draining proposition. A small army of full-time gardeners, landscapers, arborists and other specialists must be employed year around to maintain the nearly 23 football fields of meadows, vineyards, orchards, organic gardens, children's play areas, walking and jogging trails promoted by Sand Hill. There is foreseeable risk that crew cutbacks during any challenging economic time would convert this centerpiece of the project to the area's greatest elevated eyesore. There is risk also that office businesses will find it unattractive or unbearable to have office windows that receive no natural sunlight due to the covering. Like the senior housing scenario at Main Street, THERE IS REASONABLE RISK THAT SAND HILL PROPERTIES WILL DISCOVER A NECESSITY TO DROP THE SIGNATURE PARK-LIKE COVERING OF THE HILLS EXPOSING THE UNATTRACTIVE 2M SF OF HIGH DENSITY OFFICE AND ITS PARKING STRUCTURES THAT LIE BENEATH.

LETTER 2 OF 2
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A final risk is funding. BANKS CONSIDER MIXED USE DEVELOPMENTS RISKY for all of the reasons stated above. And THIS DEVELOPMENT IS MORE COMPLEX AND RISKY THAN MOST MIXED USE DEVELOPMENTS. When retail, office and residential units go vacant developers have trouble making loan payments. THERE IS REASONABLE RISK THAT SAND HILL PROPERTIES WILL NOT BE ABLE TO SECURE THE ENORMOUS LOAN REQUIRED TO CONSTRUCT THE HILLS AT VALLCO AS PROPOSED, ESPECIALLY GIVEN THE MAJOR ISSUES INTRODUCED BY THE ENORMOUS OFFICE SPACE COMPONENT, TRAFFIC, SHARED PARKING AND CONSEQUENT RETAIL SURVIVAL RISKS.

SAND HILL'S DECEPTIVE MARKETING AND POLLING

Sand Hill Properties has undertaken a significant and highly deceptive marketing campaign aimed at getting the bulk of Cupertino residents to submit written postcard mail-in support for the project. Undoubtedly, a statistic will be presented to the Council by Sand Hill showing vast resident support when the critical vote for rezoning is taken. The problem is that Sand Hill has not disclosed in its very seductive mailers, Hills at Vallco website and town meetings the fact that the bulk of Vallco revitalization, 2M sf, will be office space filled with 10,000 employees who will commute to Cupertino every work day. Such disclosure, of course, would kill the project by triggering a whole set of resident concerns including marginalization of the new shopping center, abhorrent traffic, added housing requirement and their collective impact on schools. Within my network, residents who've discovered the omission are furious over the deception, especially after having given their written support of the project. Any resident approval statistic submitted by Sand Hill Properties should be dismissed by the Council.

WHY DEVELOPER'S PUSH OFFICE SPACE IN CUPERTINO– CITY OF PALO ALTO MORATORIUM

Why are we seeing so many developer proposals to rezone Cupertino retail to office space (Vallco, The Oaks)? CUPERTINO IS A MAJOR DEVELOPER TARGET IN SANTA CLARA VALLEY FOR CONVERSION DUE TO THE WINDFALL ANOMALY THAT OFFICE LEASE RATES HERE ARE NOW OVER 40% HIGHER THAN RETAIL LEASE RATES AND 40% HIGHER THAN OFFICE, RETAIL AND RESIDENTIAL LEASE RATES IN GENERAL IN SANTA CLARA VALLEY[13]. The current office lease rate in Cupertino is $42.90 /sf/yr and skyrocketing at +24.3% annually, while the lease rate for retail is $30.20/sf/yr and growing at less than half the office rate. The county average lease rate is about $30 /sf/yr for both retail and office space. The applicable square footage is multiplied through multi-story office construction, making it far more profitable than single street level retail. THIS BRINGS SAND HILL PROPERTIES' MULTI-STORY OFFICE CENTRIC 'REVITALIZATION' DESIGN FOR VALLCO, ITS UNADDRESSED TRAFFIC AND ENVIRONMENTAL IMPACT PLANNING, ITS OFFER TO BUILD A FREE-TO-THE-CITY SCHOOL AND INNOVATION CENTER IN EXCHANGE FOR REZONING, IT'S EXPENSIVE AND DECEPTIVE MARKETING AND SURVEY CAMPAIGN INTO TOTAL FOCUS. SAND HILL'S REVENUE FROM JUST OFFICE SPACE LEASING AT THE HILLS ALONE SHOULD EXCEED $100M ANNUALLY, MUCH MORE THAN IF 'REVITALIZED' TO THE INTENDED SHOPPING CENTER. The mission of a company is to be maximally profitable and THE HILLS AT VALLCO IS EXACTLY WHAT ONE MIGHT EXPECT FROM A DEVELOPMENT COMPANY DOING THE DESIGN.

Faced with similar growth and traffic issues and loss of retail space, the City of Palo Alto passed an emergency ordinance in May prohibiting the rezoning of ground-floor retail space into office. The move was made to preserve the City's "slow-growth residential philosophy" and "protect its resident's health, safety and welfare" [14]. A similar philosophy and action is desperately needed in Cupertino.

A BETTER APPROACH TO VALLCO REVITALIZATION

In my opinion, the revitalization of Vallco should include two critical elements: First, an innovative, game change shopping destination sustainably competitive with Valley Fair, other regional successful shopping centers and downtowns; and second, integrated urban residential units designed, structured, regulated and incented to house within easy walking distance or inter-city shuttle the millennial and subsequent generations of Apple and other Cupertino-based employees who work at Campus 2, other Apple and Cupertino employee campuses. This design approach provides several most important city benefits. First, it CREATES THE 'REVITALIZED' VALLCO THAT RESIDENTS DESIRE. Second, it REDUCES COMMUTER TRAFFIC AND CARBON FOOTPRINT within Cupertino and the Bay Area. Third, the residential units and total lack of included office space will REDUCE ABAG, CEQA AND OTHER ENVIRONMENTAL ADVOCY GROUP PRESSURE FOR MORE HOUSING AND ITS CONSEQENT EFFECT ON SCHOOLS AND TRAFFIC. Fifth, regulated to omit children, the residential element will have ZERO IMPACT ON SCHOOLS. Sixth, the high density residential units will provide an ATTRACTIVE PROFIT COMPONENT FOR THE DEVELOPER AND REZONE LEVERAGE FOR THE CITY TO MAKE SURE THE DESIGN IS DONE TO MEET THE NEEDS OF THE CITY AND ITS RESIDENTS.

The retail component should first include favorable numbers, quality and types of shops, including anchor stores like Macy's, and attractive ambience to create a "shopping destination" sustainably competitive to its primary competitor at Valley Fair. For the single and millennial generation, the mix should also include trendy restaurants, best in area sports bars and night clubs with evening bands and entertainment, theatres, sports stores, coffee shops and mobile centric eateries that provide nutritional, good value meals that can be ordered and paid ahead via mobile device by the young "don't-want-to-cook" residents for pick up on the walk home from work. A game change addition would include complete mobile device connection with every shopper, providing such things a locations of available parking, directions from current location to specific shops, shop search for desired retail items, shop information, sales and mobile coupons, mobile food and item ordering, show times and ticket ordering… all available on a center-specific mobile ap that fully enriches the shopping experience. The center should contain Apple's flagship store, due to its next door location to the Apple Spaceship HQ. The mix of extensive retail and urban millennial housing provides a most attractive business environment with far fewer risk factors for attracting and retaining the best and most popular retailers.

The design of the residential component needs to be prioritized on two basic elements: first, its unparalleled appeal to young single and millennial Cupertino-based employees and, second, its full access integration with the retail center. Features should include built-in and upgradable mobile device home functionality, built-in secure Wi-Fi, wall-mounted flat panel TV, gas insert fireplace, in-suite dining and entertainment areas and street level bicycle lockers. Rents for Cupertino-based employees should be discounted and include perks like free or discount gym membership within the center. Some units should be furnished to attract new college hires.

In this scenario, the Apple Spaceship HQ and adjacent revitalized Vallco center will highlight the innovation of Cupertino, both in technology and green growth solutions.

I encourage the City of Cupertino to vote against rezoning Vallco and thereby disapprove of the proposed mixed retail-office Hills at Vallco design. The enormous office component is unnecessary, will only benefit the developer, will force enormous detrimental traffic impact on the city and neighboring communities and expose the City of Cupertino to potential CEQA litigation over gross jobs-housing imbalance. THE COUNCIL SHOULD KEEP IN MIND THAT WHILE AN AVERAGE CUPERTINO RESIDENT MAY BENEFIT FROM THE HILLS AT VALLCO REVITALIZATION TWO OR THREE TIMES PER MONTH ITS OFFICE SPACE WILL SUBJECT EACH RESIDENT TO DEBILITATING TRAFFIC EVERY DAY. An alternative retail-residential mixed use approach as outlined above is far better for Vallco revitalization. It offers far less risky development that lowers

traffic congestion and the City's jobs-housing exposure. In short, the City should send Sand Hill Properties back to the drawing board. When you complete reading this letter, I would appreciate your replying to the email (e.g. received, thank you) to let me know that it's been received and read.

Best regards,

Kent Vincent
Cupertino

[1] Wikipedia, Empire State Building
[2] *Ramp Management and Control Handbook*, Federal Highway Administration, US Dept. of Transportation
[3] Cupertino General Plan Amendment Market Report Feb. 2014
[4] *The Problems with the Hills at Vallco*, San Jose Mercury News Oct. 3, 2015
[5] *Rolling Carbon: Greenhouse Gas Emissions from Commuting in New York City*. Transp. Alternative, Oct. 2008
[6] *San Jose's general plan imperiled by greenhouse gas lawsuit*. Silicon Valley Business Journal, March 24, 2015
[7] *San Jose's Traffic-Intense General Plan Held Unlawful*, California Clean Energy Committee, May 7, 2015
[8] Jason Lungaard, State and Government Affairs, Apple
[9] https://drive.google.com/file/d/0B7RMc9DXGhUAUVhTQ1B1UU9tSVU/view?pli=1
[10] *The Hills at Vallco*, Cupertino.org
[11] Vallco 1.3M sf. The Registry, Bay Area Real Estate, August 27, 2015
[12] Wikipedia, Westfield Valley Fair
[13] LoopNet, Sept. 2015
[14] *Palo Alto passes emergency law to protect ground floor retail*, Silicon Valley Business Journal, May 12, 2015