Draft Generic Environmental Impact Statement

Zoning Law Amendments for the Proposed Community Business District

Volume 2: Traffic Study Appendices

Town of Warwick

Orange County, NY

Rt. 94
CR 21
Shop Rite Drive
Fair Grounds
Rt. 94
1A
355
129
420
59
25
440
167
244
200
273
589
183
620
100
82
102
524
64
540

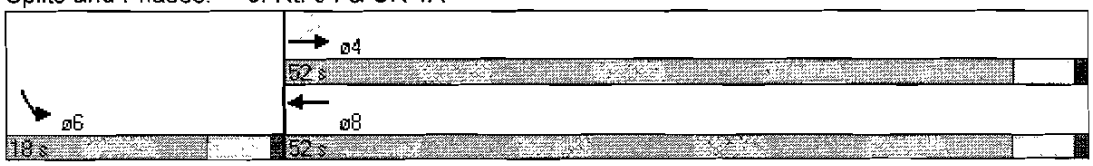
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	
Trailing Detector (ft)	0	0	0		0	
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.986		0.939	
Flt Protected		0.992			0.973	
Satd. Flow (prot)	0	1848	1837	0	1702	0
Flt Permitted		0.803			0.973	
Satd. Flow (perm)	0	1496	1837	0	1702	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			20		52	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		55	55		30	
Link Distance (ft)		533	181		153	
Travel Time (s)		6.6	2.2		3.5	
Volume (vph)	102	524	540	64	100	82
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	111	570	587	70	109	89
Lane Group Flow (vph)	0	681	657	0	198	0
Turn Type	Perm					
Protected Phases		4	8		6	
Permitted Phases	4					
Detector Phases	4	4	8		6	
Minimum Initial (s)	4.0	4.0	4.0		4.0	
Minimum Split (s)	21.0	21.0	21.0		12.0	
Total Split (s)	52.0	52.0	52.0	0.0	18.0	0.0
Total Split (%)	74.3%	74.3%	74.3%	0.0%	25.7%	0.0%
Maximum Green (s)	47.0	47.0	47.0		13.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	
All-Red Time (s)	1.0	1.0	1.0		1.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Recall Mode	Max	Max	Max		Min	
Walk Time (s)	5.0	5.0	5.0		5.0	
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	
Pedestrian Calls (#/hr)	0	0	0		0	
Act Effct Green (s)		48.1	48.1		11.3	
Actuated g/C Ratio		0.71	0.71		0.17	
v/c Ratio		0.64	0.50		0.60	
Control Delay		9.1	6.2		27.0	
Queue Delay		0.2	0.0		0.0	
Total Delay		9.3	6.2		27.0	
LOS		A	A		C	
Approach Delay		9.3	6.2		27.0	
Approach LOS		A	A		C	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Queue Length 50th (ft)	124	97			56	
Queue Length 95th (ft)	245	176			116	
Internal Link Dist (ft)	453	101			73	
Turn Bay Length (ft)						
Base Capacity (vph)	1068	1317			382	
Starvation Cap Reductn	50	0			0	
Spillback Cap Reductn	0	0			0	
Storage Cap Reductn	0	0			0	
Reduced v/c Ratio	0.67	0.50			0.52	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 67.4
Natural Cycle: 55
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 10.2 — Intersection LOS: B
Intersection Capacity Utilization 86.1% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Rt. 94 & CR 1A



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		0	0
Storage Lanes		0	1		1	1
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.983					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1831	0	1770	1863	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1831	0	1770	1863	1770	1583
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	55			55	30	
Link Distance (ft)	71			94	96	
Travel Time (s)	0.9			1.2	2.2	
Volume (vph)	420	59	129	355	82	148
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	457	64	140	386	89	161
Lane Group Flow (vph)	521	0	140	386	89	161
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 47.4% ICU Level of Service A
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	420	59	129	355	82	148
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	457	64	140	386	89	161
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				220		
pX, platoon unblocked						
vC, conflicting volume			521		1155	489
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			521		1155	489
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			87		53	72
cM capacity (veh/h)			1046		188	579

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	521	140	386	89	161
Volume Left	0	140	0	89	0
Volume Right	64	0	0	0	161
cSH	1700	1046	1700	188	579
Volume to Capacity	0.31	0.13	0.23	0.47	0.28
Queue Length 95th (ft)	0	12	0	57	28
Control Delay (s)	0.0	9.0	0.0	40.1	13.6
Lane LOS		A		E	B
Approach Delay (s)	0.0	2.4		23.1	
Approach LOS				C	

Intersection Summary			
Average Delay	5.4		
Intersection Capacity Utilization	47.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	1		0	0		0	1		0	1		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.852						0.981			0.992	
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1770	1587	0	0	0	0	1770	1827	0	1770	1848	0
Flt Permitted	0.950						0.950			0.950		
Satd. Flow (perm)	1770	1587	0	0	0	0	1770	1827	0	1770	1848	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			55			55	
Link Distance (ft)		62			80			94			126	
Travel Time (s)		1.4			1.8			1.2			1.6	
Volume (vph)	39	3	184	0	0	0	17	481	70	167	440	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	3	200	0	0	0	18	523	76	182	478	27
Lane Group Flow (vph)	42	203	0	0	0	0	18	599	0	182	505	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 60.4% ICU Level of Service B
Analysis Period (min) 15

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	39	3	184	0	0	0	17	481	70	167	440	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	42	3	200	0	0	0	18	523	76	182	478	27
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											126	
pX, platoon unblocked	0.79	0.79		0.79	0.79	0.79	0.79					
vC, conflicting volume	1439	1466	561	1616	1491	492	505			599		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1557	1592	561	1782	1623	355	372			599		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	30	95	62	100	100	100	98			81		
cM capacity (veh/h)	61	67	527	25	65	543	935			978		

Direction, Lane #	NB 1	NB 2	NE 1	NE 2	SW 1	SW 2
Volume Total	42	203	18	599	182	505
Volume Left	42	0	18	0	182	0
Volume Right	0	200	0	76	0	27
cSH	61	475	935	1700	978	1700
Volume to Capacity	0.70	0.43	0.02	0.35	0.19	0.30
Queue Length 95th (ft)	75	53	2	0	17	0
Control Delay (s)	147.9	18.1	8.9	0.0	9.5	0.0
Lane LOS	F	C	A		A	
Approach Delay (s)	40.5		0.3		2.5	
Approach LOS	E					

Intersection Summary			
Average Delay	7.6		
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		

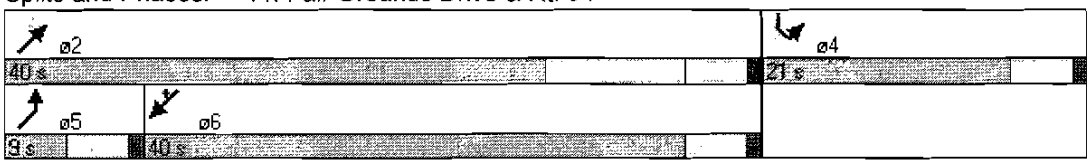
Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	100			100
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583
Flt Permitted	0.950		0.224			
Satd. Flow (perm)	1770	1583	417	1863	1863	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		217				246
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			55	55	
Link Distance (ft)	136			126	533	
Travel Time (s)	3.1			1.6	6.6	
Volume (vph)	244	200	183	620	589	273
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	265	217	199	674	640	297
Lane Group Flow (vph)	265	217	199	674	640	297
Turn Type		Perm	pm+pt			custom
Protected Phases	4		5	2	6	6
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	9.0	21.0	21.0	21.0
Total Split (s)	21.0	21.0	9.0	40.0	40.0	40.0
Total Split (%)	30.0%	30.0%	12.9%	57.1%	57.1%	57.1%
Maximum Green (s)	16.0	16.0	4.0	35.0	35.0	35.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Max	Max	Max
Walk Time (s)	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	14.7	14.7	45.0	45.0	36.0	36.0
Actuated g/C Ratio	0.22	0.22	0.66	0.66	0.53	0.53
v/c Ratio	0.69	0.42	0.53	0.54	0.65	0.31
Control Delay	34.4	6.4	10.1	8.5	15.7	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.4	6.4	10.1	8.5	15.7	3.2
LOS	C	A	B	A	B	A

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Approach Delay	21.8			8.9	11.8	
Approach LOS	C			A	B	
Queue Length 50th (ft)	102	0	29	135	186	10
Queue Length 95th (ft)	175	48	54	221	300	46
Internal Link Dist (ft)	56			46	453	
Turn Bay Length (ft)			100			100
Base Capacity (vph)	430	549	377	1238	990	957
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.40	0.53	0.54	0.65	0.31

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 67.8
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 12.8 — Intersection LOS: B
Intersection Capacity Utilization 64.7% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 11: Fair Grounds Drive & Rt. 94



Fair Grounds
Rt. 94
IA
Shop Rite Drive
CR 21
Rt. 94
287
618
256
210
192
65
67
567
105
86
107
550
28
462
175
41
573
135
441
62
Halhom Rd
Oche Ln
bing

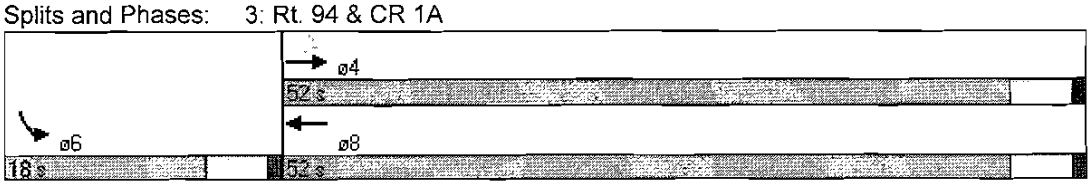
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	
Trailing Detector (ft)	0	0	0		0	
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.986		0.939	
Flt Protected		0.992			0.973	
Satd. Flow (prot)	0	1848	1837	0	1702	0
Flt Permitted		0.771			0.973	
Satd. Flow (perm)	0	1436	1837	0	1702	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			19		53	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		55	55		30	
Link Distance (ft)		533	181		153	
Travel Time (s)		6.6	2.2		3.5	
Volume (vph)	102	524	540	64	100	82
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	116	598	616	73	114	94
Lane Group Flow (vph)	0	714	689	0	208	0
Turn Type	Perm					
Protected Phases		4	8		6	
Permitted Phases	4					
Detector Phases	4	4	8		6	
Minimum Initial (s)	4.0	4.0	4.0		4.0	
Minimum Split (s)	21.0	21.0	21.0		12.0	
Total Split (s)	52.0	52.0	52.0	0.0	18.0	0.0
Total Split (%)	74.3%	74.3%	74.3%	0.0%	25.7%	0.0%
Maximum Green (s)	47.0	47.0	47.0		13.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	
All-Red Time (s)	1.0	1.0	1.0		1.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Recall Mode	Max	Max	Max		Min	
Walk Time (s)	5.0	5.0	5.0		5.0	
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	
Pedestrian Calls (#/hr)	0	0	0		0	
Act Effct Green (s)		48.1	48.1		11.5	
Actuated g/C Ratio		0.71	0.71		0.17	
v/c Ratio		0.70	0.53		0.62	
Control Delay		10.9	6.5		27.9	
Queue Delay		0.2	0.0		0.0	
Total Delay		11.1	6.5		27.9	
LOS		B	A		C	
Approach Delay		11.1	6.5		27.9	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Approach LOS		B	A		C	
Queue Length 50th (ft)		145	108		59	
Queue Length 95th (ft)		290	190		122	
Internal Link Dist (ft)		453	101		73	
Turn Bay Length (ft)						
Base Capacity (vph)		1022	1312		383	
Starvation Cap Reductn		27	0		0	
Spillback Cap Reductn		0	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.72	0.53		0.54	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 67.6
Natural Cycle: 50
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 11.3 — Intersection LOS: B
Intersection Capacity Utilization 89.9% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Rt. 94 & CR 1A



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		0	0
Storage Lanes		0	1		1	1
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.983					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1831	0	1770	1863	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1831	0	1770	1863	1770	1583
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	55			55	30	
Link Distance (ft)	71			94	96	
Travel Time (s)	0.9			1.2	2.2	
Volume (vph)	420	59	129	355	82	148
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	479	67	147	405	94	169
Lane Group Flow (vph)	546	0	147	405	94	169
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 49.2% ICU Level of Service A
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	420	59	129	355	82	148
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	479	67	147	405	94	169
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				220		
pX, platoon unblocked						
vC, conflicting volume			547		1213	513
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			547		1213	513
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			86		46	70
cM capacity (veh/h)			1023		172	561

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	547	147	405	94	169
Volume Left	0	147	0	94	0
Volume Right	67	0	0	0	169
cSH	1700	1023	1700	172	561
Volume to Capacity	0.32	0.14	0.24	0.54	0.30
Queue Length 95th (ft)	0	13	0	70	31
Control Delay (s)	0.0	9.1	0.0	48.4	14.2
Lane LOS		A		E	B
Approach Delay (s)	0.0	2.4		26.4	
Approach LOS				D	

Intersection Summary			
Average Delay	6.1		
Intersection Capacity Utilization	49.2%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	1		0	0		0	1		0	1		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.852						0.981			0.992	
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1770	1587	0	0	0	0	1770	1827	0	1770	1848	0
Flt Permitted	0.950						0.950			0.950		
Satd. Flow (perm)	1770	1587	0	0	0	0	1770	1827	0	1770	1848	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			55			55	
Link Distance (ft)		62			80			94			126	
Travel Time (s)		1.4			1.8			1.2			1.6	
Volume (vph)	39	3	184	0	0	0	17	481	70	167	440	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	45	3	210	0	0	0	19	549	80	191	502	29
Lane Group Flow (vph)	45	213	0	0	0	0	19	629	0	191	531	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 62.9% ICU Level of Service B
Analysis Period (min) 15

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	39	3	184	0	0	0	17	481	70	167	440	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	45	3	210	0	0	0	19	549	80	191	502	29
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											126	
pX, platoon unblocked	0.77	0.77		0.77	0.77	0.77	0.77					
vC, conflicting volume	1511	1540	589	1697	1565	516	531			629		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1666	1704	589	1909	1737	370	388			629		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	9	94	59	100	100	100	98			80		
cM capacity (veh/h)	49	55	508	19	52	519	898			953		

Direction, Lane #	NB 1	NB 2	NE 1	NE 2	SW 1	SW 2
Volume Total	45	213	19	629	191	531
Volume Left	45	0	19	0	191	0
Volume Right	0	210	0	80	0	29
cSH	49	449	898	1700	953	1700
Volume to Capacity	0.91	0.48	0.02	0.37	0.20	0.31
Queue Length 95th (ft)	95	63	2	0	19	0
Control Delay (s)	232.0	20.1	9.1	0.0	9.7	0.0
Lane LOS	F	C	A		A	
Approach Delay (s)	56.6		0.3		2.6	
Approach LOS	F					

Intersection Summary			
Average Delay	10.2		
Intersection Capacity Utilization	62.9%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	100			100
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583
Flt Permitted	0.950		0.202			
Satd. Flow (perm)	1770	1583	376	1863	1863	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		228				246
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			55	55	
Link Distance (ft)	136			126	533	
Travel Time (s)	3.1			1.6	6.6	
Volume (vph)	244	200	183	620	589	273
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	278	228	209	708	672	312
Lane Group Flow (vph)	278	228	209	708	672	312
Turn Type		Perm	pm+pt			custom
Protected Phases	4		5	2	6	6
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	9.0	21.0	21.0	21.0
Total Split (s)	21.0	21.0	9.0	40.0	40.0	40.0
Total Split (%)	30.0%	30.0%	12.9%	57.1%	57.1%	57.1%
Maximum Green (s)	16.0	16.0	4.0	35.0	35.0	35.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Max	Max	Max
Walk Time (s)	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	15.1	15.1	45.0	45.0	36.0	36.0
Actuated g/C Ratio	0.22	0.22	0.66	0.66	0.53	0.53
v/c Ratio	0.71	0.43	0.60	0.57	0.68	0.33
Control Delay	35.3	6.4	12.6	9.1	16.8	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay	35.3	6.4	12.6	9.1	16.9	3.5

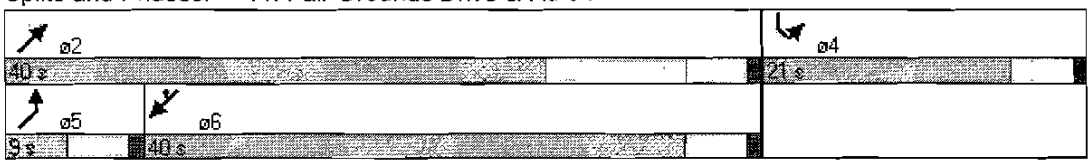
Lane Group	SBL	SBR	NEL	NET	SWT	SWR
LOS	D	A	B	A	B	A
Approach Delay	22.3			9.9	12.6	
Approach LOS	C			A	B	
Queue Length 50th (ft)	108	0	31	151	205	13
Queue Length 95th (ft)	184	49	#56	240	325	50
Internal Link Dist (ft)	56			46	453	
Turn Bay Length (ft)			100			100
Base Capacity (vph)	430	557	351	1232	986	954
Starvation Cap Reductn	0	0	0	0	18	0
Spillback Cap Reductn	0	0	0	2	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.41	0.60	0.58	0.69	0.33

Intersection Summary

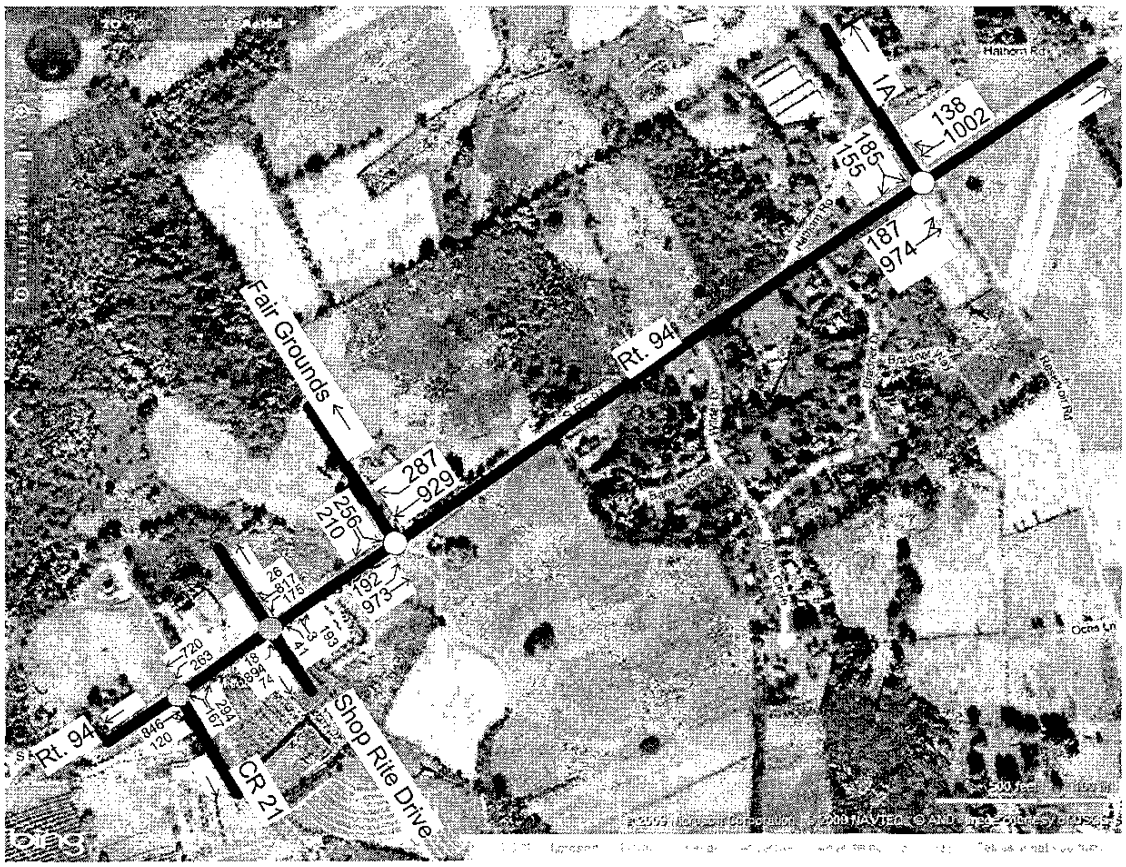
Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 68.1
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 13.6 — Intersection LOS: B
Intersection Capacity Utilization 67.4% — ICU Level of Service C
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Fair Grounds Drive & Rt. 94



SAT Build 2014 Existing Zoning



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	
Trailing Detector (ft)	0	0	0		0	
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.984		0.939	
Flt Protected		0.992			0.973	
Satd. Flow (prot)	0	1848	1833	0	1702	0
Flt Permitted		0.089			0.973	
Satd. Flow (perm)	0	166	1833	0	1702	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			23		54	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		55	55		30	
Link Distance (ft)		533	181		153	
Travel Time (s)		6.6	2.2		3.5	
Volume (vph)	187	974	1002	138	185	155
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Adj. Flow (vph)	203	1059	1089	150	201	168
Lane Group Flow (vph)	0	1262	1239	0	369	0
Turn Type	Perm					
Protected Phases		4	8		6	
Permitted Phases	4					
Detector Phases	4	4	8		6	
Minimum Initial (s)	4.0	4.0	4.0		4.0	
Minimum Split (s)	21.0	21.0	21.0		12.0	
Total Split (s)	52.0	52.0	52.0	0.0	18.0	0.0
Total Split (%)	74.3%	74.3%	74.3%	0.0%	25.7%	0.0%
Maximum Green (s)	47.0	47.0	47.0		13.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	
All-Red Time (s)	1.0	1.0	1.0		1.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Recall Mode	Max	Max	Max		Min	
Walk Time (s)	5.0	5.0	5.0		5.0	
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	
Pedestrian Calls (#/hr)	0	0	0		0	
Act Effct Green (s)		48.0	48.0		14.0	
Actuated g/C Ratio		0.69	0.69		0.20	
v/c Ratio		11.07	0.98		0.96	
Control Delay		4553.9	33.9		64.2	
Queue Delay		0.0	49.7		71.6	
Total Delay		4553.9	83.6		135.9	
LOS		F	F		F	
Approach Delay		4553.9	83.6		135.9	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Approach LOS		F	F		F	
Queue Length 50th (ft)		~1086	415		137	
Queue Length 95th (ft)		#1323	#789		#299	
Internal Link Dist (ft)		453	101		73	
Turn Bay Length (ft)						
Base Capacity (vph)		114	1264		384	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	161		70	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		11.07	1.12		1.18	

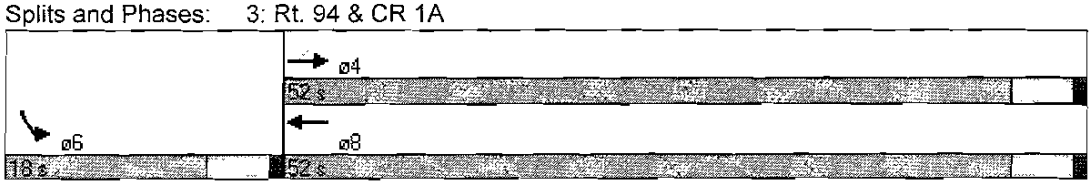
Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Natural Cycle: 150
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 11.07
Intersection Signal Delay: 2056.0 — Intersection LOS: F
Intersection Capacity Utilization 152.5% — ICU Level of Service H
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Rt. 94 & CR 1A



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		0	0
Storage Lanes		0	1		1	1
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.983					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1831	0	1770	1863	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1831	0	1770	1863	1770	1583
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	55			55	30	
Link Distance (ft)	71			94	96	
Travel Time (s)	0.9			1.2	2.2	
Volume (vph)	846	120	263	720	167	294
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Adj. Flow (vph)	920	130	286	783	182	320
Lane Group Flow (vph)	1050	0	286	783	182	320
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 85.6% ICU Level of Service E
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	846	120	263	720	167	294
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	920	130	286	783	182	320
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				220		
pX, platoon unblocked					0.60	
vC, conflicting volume			1050		2339	985
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1050		3243	985
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			57		0	0
cM capacity (veh/h)			663		4	301

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	1050	286	783	182	320
Volume Left	0	286	0	182	0
Volume Right	130	0	0	0	320
cSH	1700	663	1700	4	301
Volume to Capacity	0.62	0.43	0.46	51.32	1.06
Queue Length 95th (ft)	0	54	0	Err	304
Control Delay (s)	0.0	14.5	0.0	Err	107.5
Lane LOS		B		F	F
Approach Delay (s)	0.0	3.9		3690.8	
Approach LOS				F	

Intersection Summary			
Average Delay	707.6		
Intersection Capacity Utilization	85.6%	ICU Level of Service	E
Analysis Period (min)	15		

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	1		0	0		0	1		0	1		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.852						0.989			0.995	
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1770	1587	0	0	0	0	1770	1842	0	1770	1853	0
Flt Permitted	0.950						0.950			0.950		
Satd. Flow (perm)	1770	1587	0	0	0	0	1770	1842	0	1770	1853	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			55			55	
Link Distance (ft)		62			80			94			126	
Travel Time (s)		1.4			1.8			1.2			1.6	
Volume (vph)	39	3	184	0	0	0	17	894	70	167	817	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	105%	105%	105%	105%	105%	105%	105%	100%	105%	105%	100%	105%
Adj. Flow (vph)	45	3	210	0	0	0	19	972	80	191	888	29
Lane Group Flow (vph)	45	213	0	0	0	0	19	1052	0	191	917	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 83.3% ICU Level of Service E
Analysis Period (min) 15

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	39	3	184	0	0	0	17	894	70	167	817	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	45	3	210	0	0	0	19	972	80	191	888	29
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											126	
pX, platoon unblocked	0.48	0.48		0.48	0.48	0.48	0.48					
vC, conflicting volume	2320	2348	1012	2506	2374	902	917			1052		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	3730	3789	1012	4115	3842	798	827			1052		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	0	28	0	100	100	95			71		
cM capacity (veh/h)	1	1	291	0	1	187	389			662		

Direction, Lane #	NB 1	NB 2	NE 1	NE 2	SW 1	SW 2
Volume Total	45	213	19	1052	191	917
Volume Left	45	0	19	0	191	0
Volume Right	0	210	0	80	0	29
cSH	1	64	389	1700	662	1700
Volume to Capacity	51.30	3.32	0.05	0.62	0.29	0.54
Queue Length 95th (ft)	Err	Err	4	0	30	0
Control Delay (s)	Err	Err	14.8	0.0	12.6	0.0
Lane LOS	F	F	B		B	
Approach Delay (s)	Err		0.3		2.2	
Approach LOS	F					

Intersection Summary			
Average Delay	1059.8		
Intersection Capacity Utilization	83.3%	ICU Level of Service	E
Analysis Period (min)	15		

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	100			100
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583
Flt Permitted	0.950		0.100			
Satd. Flow (perm)	1770	1583	186	1863	1863	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		184				164
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			55	55	
Link Distance (ft)	136			126	533	
Travel Time (s)	3.1			1.6	6.6	
Volume (vph)	244	200	183	973	929	273
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	105%	105%	105%	100%	100%	105%
Adj. Flow (vph)	278	228	209	1058	1010	312
Lane Group Flow (vph)	278	228	209	1058	1010	312
Turn Type		Perm	pm+pt			custom
Protected Phases	4		5	2	6	6
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	9.0	21.0	21.0	21.0
Total Split (s)	21.0	21.0	9.0	40.0	40.0	40.0
Total Split (%)	30.0%	30.0%	12.9%	57.1%	57.1%	57.1%
Maximum Green (s)	16.0	16.0	4.0	35.0	35.0	35.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Max	Max	Max
Walk Time (s)	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	15.1	15.1	45.0	45.0	36.0	36.0
Actuated g/C Ratio	0.22	0.22	0.66	0.66	0.53	0.53
v/c Ratio	0.71	0.46	0.87	0.86	1.02	0.34
Control Delay	35.3	9.6	48.0	19.3	54.9	5.7
Queue Delay	0.0	0.0	0.0	0.0	4.5	0.0
Total Delay	35.3	9.6	48.0	19.3	59.4	5.7

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
LOS	D	A	D	B	E	A
Approach Delay	23.7			24.0	46.7	
Approach LOS	C			C	D	
Queue Length 50th (ft)	108	15	39	324	~487	32
Queue Length 95th (ft)	184	67	#158	#641	#705	74
Internal Link Dist (ft)	56			46	453	
Turn Bay Length (ft)			100			100
Base Capacity (vph)	430	524	240	1232	986	915
Starvation Cap Reductn	0	0	0	0	13	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.44	0.87	0.86	1.04	0.34

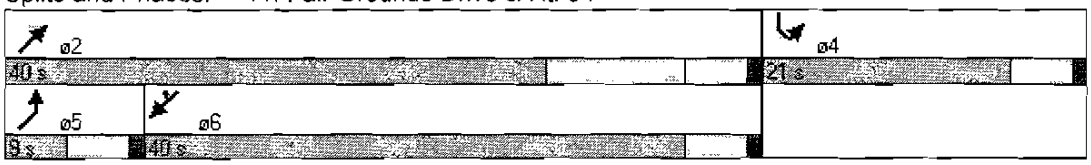
Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 68.1
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 1.02
Intersection Signal Delay: 33.7 — Intersection LOS: C
Intersection Capacity Utilization 83.7% — ICU Level of Service E
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Fair Grounds Drive & Rt. 94



Rt. 94
CR 21
Shop Rite Drive
Fair Grounds
Rt. 94
1A
Hathorn Rd
Stagecoach
Preston Rd
Otis Ln
738
270
867
123
18
48
74
112
50
26
536
175
256
210
287
771
192
809
189
159
191
997
141
1026

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	
Trailing Detector (ft)	0	0	0		0	
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.984		0.938	
Flt Protected		0.992			0.974	
Satd. Flow (prot)	0	1848	1833	0	1702	0
Flt Permitted		0.048			0.974	
Satd. Flow (perm)	0	89	1833	0	1702	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			22		54	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		55	55		30	
Link Distance (ft)		533	181		153	
Travel Time (s)		6.6	2.2		3.5	
Volume (vph)	191	997	1026	141	189	159
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Adj. Flow (vph)	208	1084	1115	153	205	173
Lane Group Flow (vph)	0	1292	1268	0	378	0
Turn Type	Perm					
Protected Phases		4	8		6	
Permitted Phases	4					
Detector Phases	4	4	8		6	
Minimum Initial (s)	4.0	4.0	4.0		4.0	
Minimum Split (s)	21.0	21.0	21.0		12.0	
Total Split (s)	52.0	52.0	52.0	0.0	18.0	0.0
Total Split (%)	74.3%	74.3%	74.3%	0.0%	25.7%	0.0%
Maximum Green (s)	47.0	47.0	47.0		13.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	
All-Red Time (s)	1.0	1.0	1.0		1.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Recall Mode	Max	Max	Max		Min	
Walk Time (s)	5.0	5.0	5.0		5.0	
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	
Pedestrian Calls (#/hr)	0	0	0		0	
Act Effct Green (s)		48.0	48.0		14.0	
Actuated g/C Ratio		0.69	0.69		0.20	
v/c Ratio		21.18	1.00		0.98	
Control Delay		9114.7	39.6		69.8	
Queue Delay		0.0	14.9		20.5	
Total Delay		9114.7	54.5		90.2	
LOS		F	D		F	
Approach Delay		9114.7	54.5		90.2	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Approach LOS		F	D		F	
Queue Length 50th (ft)		~1164	~454		142	
Queue Length 95th (ft)		#1402	#817		#308	
Internal Link Dist (ft)		453	101		73	
Turn Bay Length (ft)						
Base Capacity (vph)		61	1264		384	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	56		26	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		21.18	1.05		1.06	

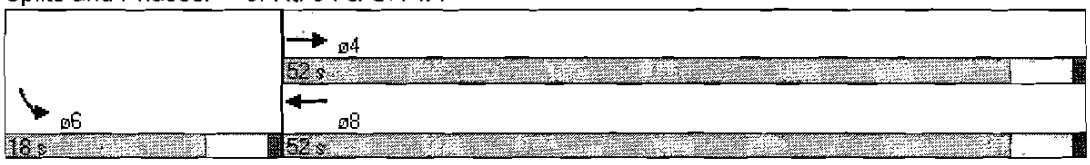
Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Natural Cycle: 150
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 21.18
Intersection Signal Delay: 4043.4 Intersection LOS: F
Intersection Capacity Utilization 155.8% ICU Level of Service H
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Rt. 94 & CR 1A



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		0	0
Storage Lanes		0	1		1	1
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.983					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1831	0	1770	1863	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1831	0	1770	1863	1770	1583
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	55			55	30	
Link Distance (ft)	71			94	96	
Travel Time (s)	0.9			1.2	2.2	
Volume (vph)	867	123	270	738	172	301
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Adj. Flow (vph)	942	134	293	802	187	327
Lane Group Flow (vph)	1076	0	293	802	187	327
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 87.6% ICU Level of Service E
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	867	123	270	738	172	301
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	942	134	293	802	187	327
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				220		
pX, platoon unblocked					0.66	
vC, conflicting volume			1076		2398	1009
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1076		3112	1009
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			55		0	0
cM capacity (veh/h)			648		5	291

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	1076	293	802	187	327
Volume Left	0	293	0	187	0
Volume Right	134	0	0	0	327
cSH	1700	648	1700	5	291
Volume to Capacity	0.63	0.45	0.47	40.59	1.12
Queue Length 95th (ft)	0	59	0	Err	338
Control Delay (s)	0.0	15.1	0.0	Err	128.6
Lane LOS		C		F	F
Approach Delay (s)	0.0	4.0		3717.8	
Approach LOS				F	

Intersection Summary			
Average Delay	713.3		
Intersection Capacity Utilization	87.6%	ICU Level of Service	E
Analysis Period (min)	15		

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	1		0	0		0	1		0	1		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.852						0.988			0.995	
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1770	1587	0	0	0	0	1770	1840	0	1770	1853	0
Flt Permitted	0.950						0.950			0.950		
Satd. Flow (perm)	1770	1587	0	0	0	0	1770	1840	0	1770	1853	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			55			55	
Link Distance (ft)		62			80			94			126	
Travel Time (s)		1.4			1.8			1.2			1.6	
Volume (vph)	39	3	184	0	0	0	17	816	70	167	836	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	105%	105%	105%	105%	105%	105%	105%	100%	105%	105%	100%	105%
Adj. Flow (vph)	45	3	210	0	0	0	19	887	80	191	909	29
Lane Group Flow (vph)	45	213	0	0	0	0	19	967	0	191	938	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 79.2% ICU Level of Service D
Analysis Period (min) 15

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	39	3	184	0	0	0	17	816	70	167	836	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	45	3	210	0	0	0	19	887	80	191	909	29
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											126	
pX, platoon unblocked	0.62	0.62		0.62	0.62	0.62	0.62					
vC, conflicting volume	2256	2284	927	2442	2310	923	937			967		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	3041	3087	927	3343	3129	875	898			967		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	33	35	100	100	100	96			73		
cM capacity (veh/h)	4	5	325	0	5	215	465			712		

Direction, Lane #	NB 1	NB 2	NE 1	NE 2	SW 1	SW 2
Volume Total	45	213	19	967	191	937
Volume Left	45	0	19	0	191	0
Volume Right	0	210	0	80	0	29
cSH	4	163	465	1700	712	1700
Volume to Capacity	12.00	1.31	0.04	0.57	0.27	0.55
Queue Length 95th (ft)	Err	317	3	0	27	0
Control Delay (s)	Err	231.4	13.1	0.0	11.9	0.0
Lane LOS	F	F	B		B	
Approach Delay (s)	1916.9		0.3		2.0	
Approach LOS	F					

Intersection Summary			
Average Delay	209.5		
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	100			100
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583
Flt Permitted	0.950		0.100			
Satd. Flow (perm)	1770	1583	186	1863	1863	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		226				197
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			55	55	
Link Distance (ft)	136			126	533	
Travel Time (s)	3.1			1.6	6.6	
Volume (vph)	244	200	183	809	771	273
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	105%	105%	105%	100%	100%	105%
Adj. Flow (vph)	278	228	209	879	838	312
Lane Group Flow (vph)	278	228	209	879	838	312
Turn Type		Perm	pm+pt			custom
Protected Phases	4		5	2	6	6
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	9.0	21.0	21.0	21.0
Total Split (s)	21.0	21.0	9.0	40.0	40.0	40.0
Total Split (%)	30.0%	30.0%	12.9%	57.1%	57.1%	57.1%
Maximum Green (s)	16.0	16.0	4.0	35.0	35.0	35.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Max	Max	Max
Walk Time (s)	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	15.1	15.1	45.0	45.0	36.0	36.0
Actuated g/C Ratio	0.22	0.22	0.66	0.66	0.53	0.53
v/c Ratio	0.71	0.43	0.87	0.71	0.85	0.34
Control Delay	35.3	6.5	48.0	12.1	25.1	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.4	0.0
Total Delay	35.3	6.5	48.0	12.1	25.5	4.8

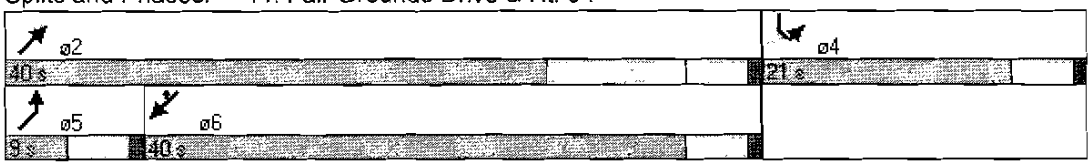
Lane Group	SBL	SBR	NEL	NET	SWT	SWR
LOS	D	A	D	B	C	A
Approach Delay	22.3			19.0	19.9	
Approach LOS	C			B	B	
Queue Length 50th (ft)	108	1	39	220	297	24
Queue Length 95th (ft)	184	50	#158	360	#534	64
Internal Link Dist (ft)	56			46	453	
Turn Bay Length (ft)			100			100
Base Capacity (vph)	430	556	240	1232	986	931
Starvation Cap Reductn	0	0	0	0	16	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.41	0.87	0.71	0.86	0.34

Intersection Summary

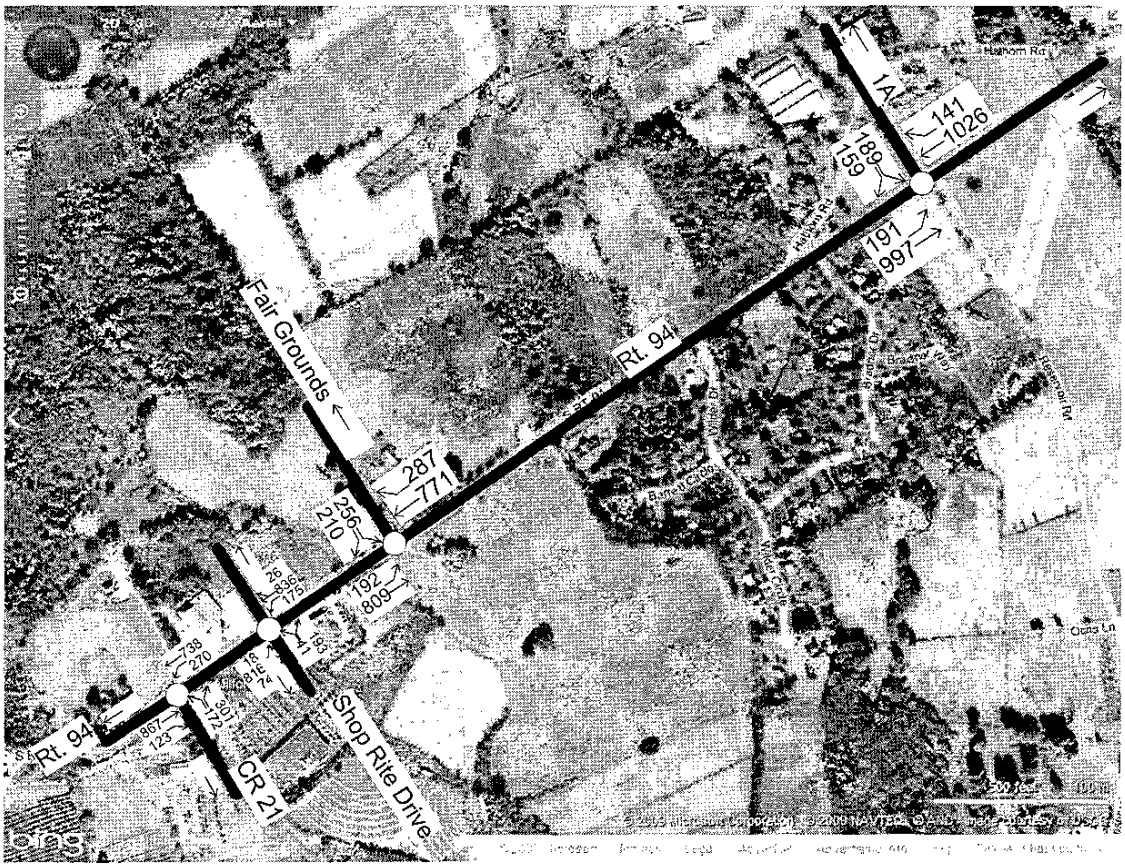
Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 68.1
Natural Cycle: 75
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 20.0 — Intersection LOS: B
Intersection Capacity Utilization 75.4% — ICU Level of Service D
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Fair Grounds Drive & Rt. 94



SAT Build 2014 Proposed Zoning with Mitigation



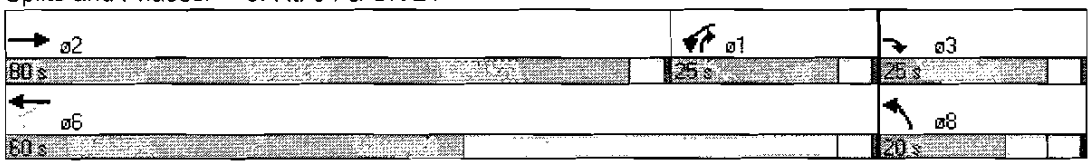
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		0	0
Storage Lanes		1	1		1	1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583
Flt Permitted			0.098		0.950	
Satd. Flow (perm)	1863	1583	183	1863	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		134				130
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	55			55	30	
Link Distance (ft)	71			94	96	
Travel Time (s)	0.9			1.2	2.2	
Volume (vph)	867	123	270	738	172	301
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Adj. Flow (vph)	942	134	293	802	187	327
Lane Group Flow (vph)	942	134	293	802	187	327
Turn Type		custom	pm+pt			pm+ov
Protected Phases	2	3	1	6	8	1
Permitted Phases		2	6			8
Detector Phases	2	3	1	6	8	1
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	9.0	21.0	20.0	9.0
Total Split (s)	80.0	25.0	25.0	60.0	20.0	25.0
Total Split (%)	61.5%	19.2%	19.2%	46.2%	15.4%	19.2%
Maximum Green (s)	75.0	20.0	20.0	55.0	15.0	20.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead		Lag			Lag
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	None	Min	Max	Min	Min
Walk Time (s)	5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	
Act Effct Green (s)	76.2	95.3	97.8	97.8	15.1	36.7
Actuated g/C Ratio	0.63	0.79	0.81	0.81	0.12	0.30
v/c Ratio	0.80	0.11	0.77	0.53	0.85	0.57
Control Delay	24.5	0.8	44.5	5.5	83.8	24.7
Queue Delay	61.6	0.0	0.0	0.0	0.0	6.8
Total Delay	86.2	0.8	44.5	5.5	83.8	31.5

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
LOS	F	A	D	A	F	C
Approach Delay	75.5			15.9	50.5	
Approach LOS	E			B	D	
Queue Length 50th (ft)	564	0	117	176	149	128
Queue Length 95th (ft)	789	13	220	242	#275	223
Internal Link Dist (ft)	1			14	16	
Turn Bay Length (ft)			200			
Base Capacity (vph)	1174	1290	417	1516	294	553
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	340	0	0	0	0	176
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.13	0.10	0.70	0.53	0.64	0.87

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 120.9
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 46.4 — Intersection LOS: D
Intersection Capacity Utilization 80.1% — ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Rt. 94 & CR 21



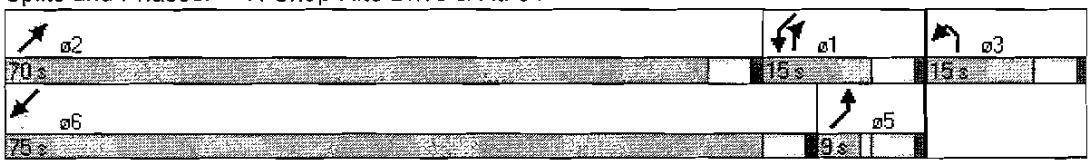
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	1		1	0		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50		50				50	50		50	50	
Trailing Detector (ft)	0		0				0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850					0.988			0.995	
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1770	0	1583	0	0	0	1770	1840	0	1770	1853	0
Flt Permitted	0.950						0.186			0.153		
Satd. Flow (perm)	1770	0	1583	0	0	0	346	1840	0	285	1853	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			210					10			4	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			55			55	
Link Distance (ft)		62			80			94			126	
Travel Time (s)		1.4			1.8			1.2			1.6	
Volume (vph)	39	0	184	0	0	0	17	816	70	167	836	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	105%	105%	105%	105%	105%	105%	105%	100%	105%	105%	100%	105%
Adj. Flow (vph)	45	0	210	0	0	0	19	887	80	191	909	29
Lane Group Flow (vph)	45	0	210	0	0	0	19	967	0	191	938	0
Turn Type	Prot		Over				pm+pt			pm+pt		
Protected Phases	3		1				5	2		1	6	
Permitted Phases							2			6		
Detector Phases	3		1				5	2		1	6	
Minimum Initial (s)	4.0		4.0				4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0		9.0				9.0	21.0		9.0	21.0	
Total Split (s)	15.0	0.0	15.0	0.0	0.0	0.0	9.0	70.0	0.0	15.0	75.0	0.0
Total Split (%)	15.0%	0.0%	15.0%	0.0%	0.0%	0.0%	9.0%	70.0%	0.0%	15.0%	75.0%	0.0%
Maximum Green (s)	10.0		10.0				4.0	65.0		10.0	70.0	
Yellow Time (s)	4.0		4.0				4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0		1.0				1.0	1.0		1.0	1.0	
Lead/Lag			Lag				Lag	Lead		Lag	Lead	
Lead-Lag Optimize?			Yes				Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0		3.0				3.0	3.0		3.0	3.0	
Recall Mode	None		None				None	Max		None	Max	
Walk Time (s)								5.0			5.0	
Flash Dont Walk (s)								11.0			11.0	
Pedestrian Calls (#/hr)								0			0	
Act Effct Green (s)	8.7		8.0				72.2	67.4		79.4	77.7	
Actuated g/C Ratio	0.09		0.09				0.75	0.74		0.87	0.85	
v/c Ratio	0.28		0.63				0.06	0.71		0.51	0.59	
Control Delay	45.2		15.4				2.8	12.4		13.2	7.0	
Queue Delay	0.9		1.6				0.0	4.0		4.7	54.3	
Total Delay	46.0		17.0				2.8	16.4		18.0	61.2	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
LOS	D		B				A	B		B	E	
Approach Delay								16.1			53.9	
Approach LOS								B			D	
Queue Length 50th (ft)	25		0				1	297		16	141	
Queue Length 95th (ft)	61		67				5	587		43	447	
Internal Link Dist (ft)		1			1			14			46	
Turn Bay Length (ft)							100			100		
Base Capacity (vph)	199		371				347	1361		423	1578	
Starvation Cap Reductn	0		0				0	0		166	644	
Spillback Cap Reductn	54		58				0	305		0	732	
Storage Cap Reductn	0		0				0	0		0	0	
Reduced v/c Ratio	0.31		0.67				0.05	0.92		0.74	1.11	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 91.3
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 34.8 — Intersection LOS: C
Intersection Capacity Utilization 70.5% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 7: Shop Rite Drive & Rt. 94



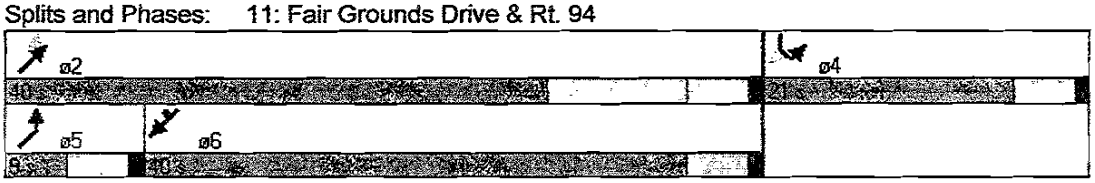
Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	100			100
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583
Flt Permitted	0.950		0.100			
Satd. Flow (perm)	1770	1583	186	1863	1863	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		226				197
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			55	55	
Link Distance (ft)	136			126	533	
Travel Time (s)	3.1			1.6	6.6	
Volume (vph)	244	200	183	809	771	273
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	105%	105%	105%	100%	100%	105%
Adj. Flow (vph)	278	228	209	879	838	312
Lane Group Flow (vph)	278	228	209	879	838	312
Turn Type		Perm	pm+pt			custom
Protected Phases	4		5	2	6	6
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	9.0	21.0	21.0	21.0
Total Split (s)	21.0	21.0	9.0	40.0	40.0	40.0
Total Split (%)	30.0%	30.0%	12.9%	57.1%	57.1%	57.1%
Maximum Green (s)	16.0	16.0	4.0	35.0	35.0	35.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Max	Max	Max
Walk Time (s)	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	15.1	15.1	45.0	45.0	36.0	36.0
Actuated g/C Ratio	0.22	0.22	0.66	0.66	0.53	0.53
v/c Ratio	0.71	0.43	0.87	0.71	0.85	0.34
Control Delay	35.3	6.5	48.0	12.1	25.1	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.4	0.0
Total Delay	35.3	6.5	48.0	12.1	25.5	4.8

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
LOS	D	A	D	B	C	A
Approach Delay	22.3			19.0	19.9	
Approach LOS	C			B	B	
Queue Length 50th (ft)	108	1	39	220	297	24
Queue Length 95th (ft)	184	50	#158	360	#534	64
Internal Link Dist (ft)	56			46	453	
Turn Bay Length (ft)			100			100
Base Capacity (vph)	430	556	240	1232	986	931
Starvation Cap Reductn	0	0	0	0	16	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.41	0.87	0.71	0.86	0.34

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 68.1
Natural Cycle: 75
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 20.0 — Intersection LOS: B
Intersection Capacity Utilization 75.4% — ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Fair Grounds Drive & Rt. 94



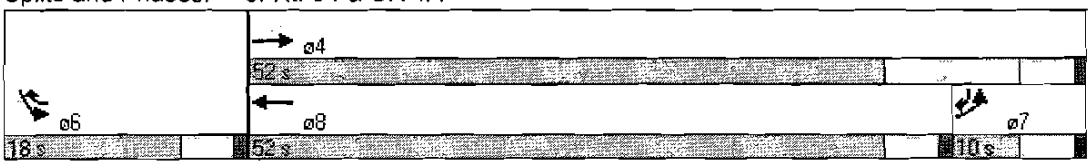
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1863	1583	1770	1583
Flt Permitted	0.077				0.950	
Satd. Flow (perm)	143	1863	1863	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				127		93
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		55	55		30	
Link Distance (ft)		533	181		153	
Travel Time (s)		6.6	2.2		3.5	
Volume (vph)	191	997	1026	141	189	159
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Adj. Flow (vph)	208	1084	1115	153	205	173
Lane Group Flow (vph)	208	1084	1115	153	205	173
Turn Type	pm+pt			pm+ov		pm+ov
Protected Phases	7	4	8	6	6	7
Permitted Phases	4			8		6
Detector Phases	7	4	8	6	6	7
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	21.0	21.0	12.0	12.0	9.0
Total Split (s)	10.0	52.0	52.0	18.0	18.0	10.0
Total Split (%)	12.5%	65.0%	65.0%	22.5%	22.5%	12.5%
Maximum Green (s)	5.0	47.0	47.0	13.0	13.0	5.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lag		Lead			Lag
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	Min	Min	None
Walk Time (s)		5.0	5.0	5.0	5.0	
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)		0	0	0	0	
Act Effct Green (s)	58.0	58.0	48.0	65.0	13.0	23.0
Actuated g/C Ratio	0.73	0.73	0.61	0.82	0.16	0.29
v/c Ratio	0.91	0.79	0.98	0.12	0.70	0.33
Control Delay	66.8	12.6	41.0	0.6	45.3	12.5
Queue Delay	0.0	3.6	9.3	0.0	0.0	0.2
Total Delay	66.8	16.2	50.3	0.6	45.3	12.7
LOS	E	B	D	A	D	B
Approach Delay		24.4	44.3		30.4	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Approach LOS		C	D		C	
Queue Length 50th (ft)	55	289	503	1	97	29
Queue Length 95th (ft)	#181	482	#820	8	#182	77
Internal Link Dist (ft)		453	101		73	
Turn Bay Length (ft)						
Base Capacity (vph)	229	1368	1132	1299	310	527
Starvation Cap Reductn	0	198	0	0	0	0
Spillback Cap Reductn	0	0	41	0	0	57
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.93	1.02	0.12	0.66	0.37

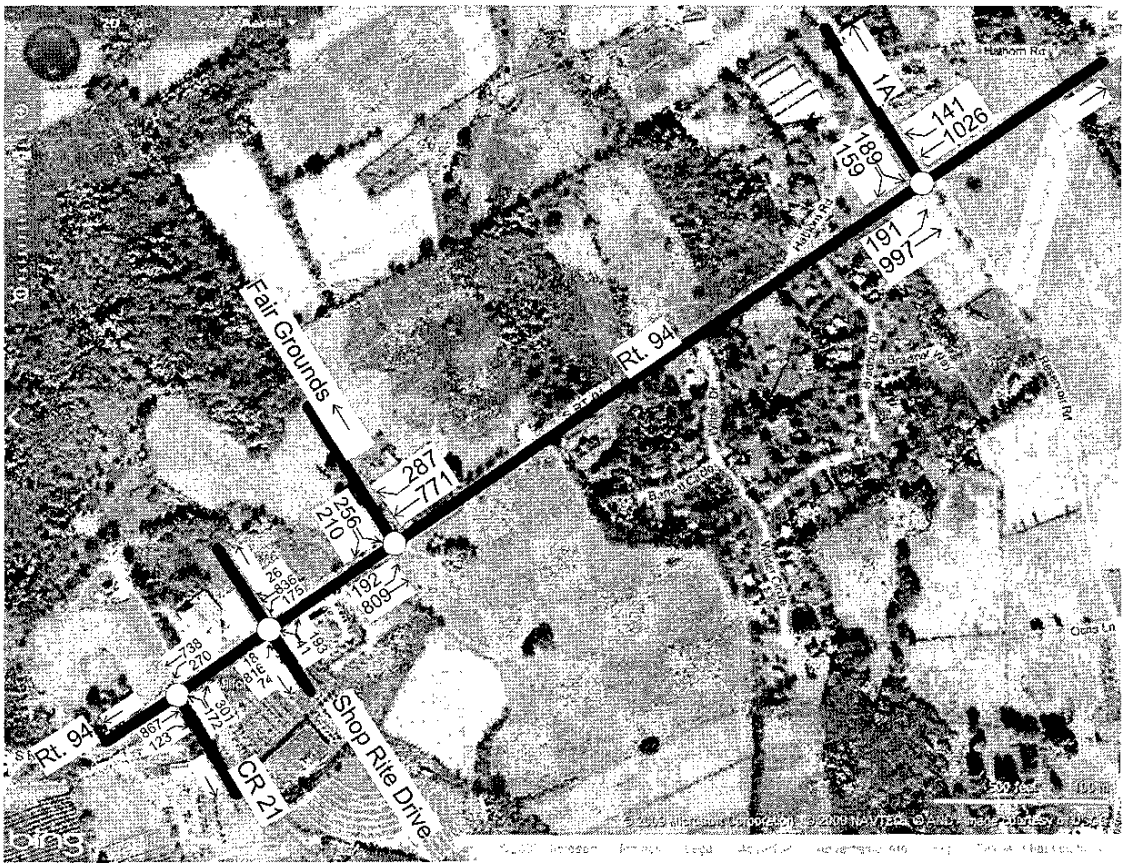
Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 79
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 33.7 Intersection LOS: C
Intersection Capacity Utilization 85.1% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Rt. 94 & CR 1A



SAT Build 2014 Proposed Zoning with Mitigation



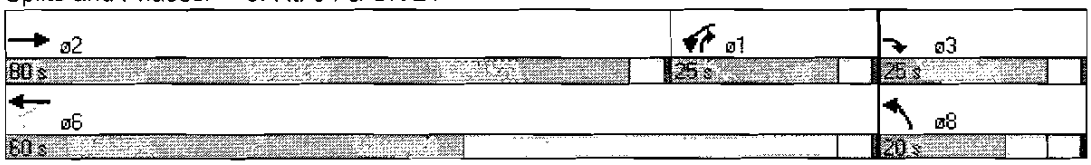
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		0	0
Storage Lanes		1	1		1	1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583
Flt Permitted			0.098		0.950	
Satd. Flow (perm)	1863	1583	183	1863	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		134				130
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	55			55	30	
Link Distance (ft)	71			94	96	
Travel Time (s)	0.9			1.2	2.2	
Volume (vph)	867	123	270	738	172	301
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Adj. Flow (vph)	942	134	293	802	187	327
Lane Group Flow (vph)	942	134	293	802	187	327
Turn Type		custom	pm+pt			pm+ov
Protected Phases	2	3	1	6	8	1
Permitted Phases		2	6			8
Detector Phases	2	3	1	6	8	1
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	9.0	21.0	20.0	9.0
Total Split (s)	80.0	25.0	25.0	60.0	20.0	25.0
Total Split (%)	61.5%	19.2%	19.2%	46.2%	15.4%	19.2%
Maximum Green (s)	75.0	20.0	20.0	55.0	15.0	20.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead		Lag			Lag
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	None	Min	Max	Min	Min
Walk Time (s)	5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	
Act Effct Green (s)	76.2	95.3	97.8	97.8	15.1	36.7
Actuated g/C Ratio	0.63	0.79	0.81	0.81	0.12	0.30
v/c Ratio	0.80	0.11	0.77	0.53	0.85	0.57
Control Delay	24.5	0.8	44.5	5.5	83.8	24.7
Queue Delay	61.6	0.0	0.0	0.0	0.0	6.8
Total Delay	86.2	0.8	44.5	5.5	83.8	31.5

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
LOS	F	A	D	A	F	C
Approach Delay	75.5			15.9	50.5	
Approach LOS	E			B	D	
Queue Length 50th (ft)	564	0	117	176	149	128
Queue Length 95th (ft)	789	13	220	242	#275	223
Internal Link Dist (ft)	1			14	16	
Turn Bay Length (ft)			200			
Base Capacity (vph)	1174	1290	417	1516	294	553
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	340	0	0	0	0	176
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.13	0.10	0.70	0.53	0.64	0.87

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 120.9
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 46.4 — Intersection LOS: D
Intersection Capacity Utilization 80.1% — ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Rt. 94 & CR 21



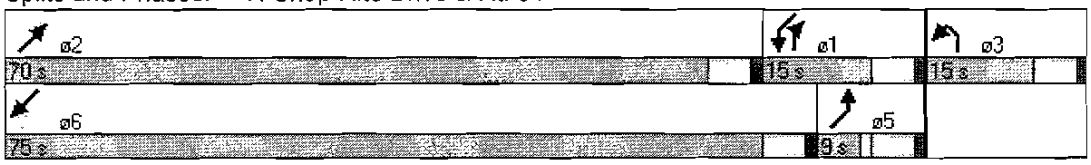
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	1		1	0		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50		50				50	50		50	50	
Trailing Detector (ft)	0		0				0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850					0.988			0.995	
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1770	0	1583	0	0	0	1770	1840	0	1770	1853	0
Flt Permitted	0.950						0.186			0.153		
Satd. Flow (perm)	1770	0	1583	0	0	0	346	1840	0	285	1853	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			210					10			4	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			55			55	
Link Distance (ft)		62			80			94			126	
Travel Time (s)		1.4			1.8			1.2			1.6	
Volume (vph)	39	0	184	0	0	0	17	816	70	167	836	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	105%	105%	105%	105%	105%	105%	105%	100%	105%	105%	100%	105%
Adj. Flow (vph)	45	0	210	0	0	0	19	887	80	191	909	29
Lane Group Flow (vph)	45	0	210	0	0	0	19	967	0	191	938	0
Turn Type	Prot		Over				pm+pt			pm+pt		
Protected Phases	3		1				5	2		1	6	
Permitted Phases							2			6		
Detector Phases	3		1				5	2		1	6	
Minimum Initial (s)	4.0		4.0				4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0		9.0				9.0	21.0		9.0	21.0	
Total Split (s)	15.0	0.0	15.0	0.0	0.0	0.0	9.0	70.0	0.0	15.0	75.0	0.0
Total Split (%)	15.0%	0.0%	15.0%	0.0%	0.0%	0.0%	9.0%	70.0%	0.0%	15.0%	75.0%	0.0%
Maximum Green (s)	10.0		10.0				4.0	65.0		10.0	70.0	
Yellow Time (s)	4.0		4.0				4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0		1.0				1.0	1.0		1.0	1.0	
Lead/Lag			Lag				Lag	Lead		Lag	Lead	
Lead-Lag Optimize?			Yes				Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0		3.0				3.0	3.0		3.0	3.0	
Recall Mode	None		None				None	Max		None	Max	
Walk Time (s)								5.0			5.0	
Flash Dont Walk (s)								11.0			11.0	
Pedestrian Calls (#/hr)								0			0	
Act Effct Green (s)	8.7		8.0				72.2	67.4		79.4	77.7	
Actuated g/C Ratio	0.09		0.09				0.75	0.74		0.87	0.85	
v/c Ratio	0.28		0.63				0.06	0.71		0.51	0.59	
Control Delay	45.2		15.4				2.8	12.4		13.2	7.0	
Queue Delay	0.9		1.6				0.0	4.0		4.7	54.3	
Total Delay	46.0		17.0				2.8	16.4		18.0	61.2	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
LOS	D		B				A	B		B	E	
Approach Delay								16.1			53.9	
Approach LOS								B			D	
Queue Length 50th (ft)	25		0				1	297		16	141	
Queue Length 95th (ft)	61		67				5	587		43	447	
Internal Link Dist (ft)		1			1			14			46	
Turn Bay Length (ft)							100			100		
Base Capacity (vph)	199		371				347	1361		423	1578	
Starvation Cap Reductn	0		0				0	0		166	644	
Spillback Cap Reductn	54		58				0	305		0	732	
Storage Cap Reductn	0		0				0	0		0	0	
Reduced v/c Ratio	0.31		0.67				0.05	0.92		0.74	1.11	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 91.3
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 34.8 — Intersection LOS: C
Intersection Capacity Utilization 70.5% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 7: Shop Rite Drive & Rt. 94



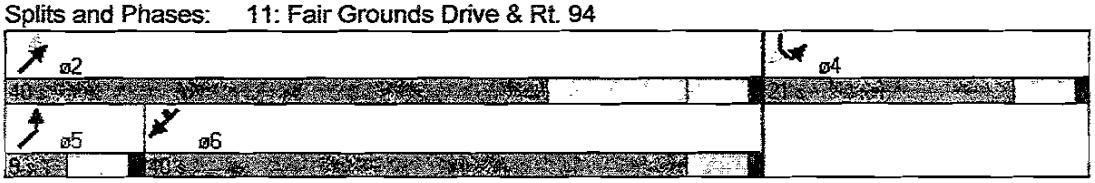
Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	100			100
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583
Flt Permitted	0.950		0.100			
Satd. Flow (perm)	1770	1583	186	1863	1863	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		226				197
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			55	55	
Link Distance (ft)	136			126	533	
Travel Time (s)	3.1			1.6	6.6	
Volume (vph)	244	200	183	809	771	273
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	105%	105%	105%	100%	100%	105%
Adj. Flow (vph)	278	228	209	879	838	312
Lane Group Flow (vph)	278	228	209	879	838	312
Turn Type		Perm	pm+pt			custom
Protected Phases	4		5	2	6	6
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	9.0	21.0	21.0	21.0
Total Split (s)	21.0	21.0	9.0	40.0	40.0	40.0
Total Split (%)	30.0%	30.0%	12.9%	57.1%	57.1%	57.1%
Maximum Green (s)	16.0	16.0	4.0	35.0	35.0	35.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Max	Max	Max
Walk Time (s)	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	15.1	15.1	45.0	45.0	36.0	36.0
Actuated g/C Ratio	0.22	0.22	0.66	0.66	0.53	0.53
v/c Ratio	0.71	0.43	0.87	0.71	0.85	0.34
Control Delay	35.3	6.5	48.0	12.1	25.1	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.4	0.0
Total Delay	35.3	6.5	48.0	12.1	25.5	4.8

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
LOS	D	A	D	B	C	A
Approach Delay	22.3			19.0	19.9	
Approach LOS	C			B	B	
Queue Length 50th (ft)	108	1	39	220	297	24
Queue Length 95th (ft)	184	50	#158	360	#534	64
Internal Link Dist (ft)	56			46	453	
Turn Bay Length (ft)			100			100
Base Capacity (vph)	430	556	240	1232	986	931
Starvation Cap Reductn	0	0	0	0	16	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.41	0.87	0.71	0.86	0.34

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 68.1
Natural Cycle: 75
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 20.0 — Intersection LOS: B
Intersection Capacity Utilization 75.4% — ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Fair Grounds Drive & Rt. 94



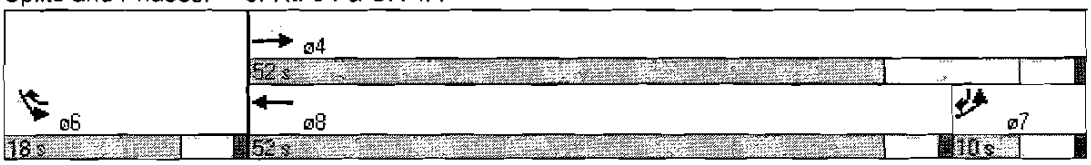
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1863	1583	1770	1583
Flt Permitted	0.077				0.950	
Satd. Flow (perm)	143	1863	1863	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				127		93
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		55	55		30	
Link Distance (ft)		533	181		153	
Travel Time (s)		6.6	2.2		3.5	
Volume (vph)	191	997	1026	141	189	159
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Adj. Flow (vph)	208	1084	1115	153	205	173
Lane Group Flow (vph)	208	1084	1115	153	205	173
Turn Type	pm+pt			pm+ov		pm+ov
Protected Phases	7	4	8	6	6	7
Permitted Phases	4			8		6
Detector Phases	7	4	8	6	6	7
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	21.0	21.0	12.0	12.0	9.0
Total Split (s)	10.0	52.0	52.0	18.0	18.0	10.0
Total Split (%)	12.5%	65.0%	65.0%	22.5%	22.5%	12.5%
Maximum Green (s)	5.0	47.0	47.0	13.0	13.0	5.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lag		Lead			Lag
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	Min	Min	None
Walk Time (s)		5.0	5.0	5.0	5.0	
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)		0	0	0	0	
Act Effct Green (s)	58.0	58.0	48.0	65.0	13.0	23.0
Actuated g/C Ratio	0.73	0.73	0.61	0.82	0.16	0.29
v/c Ratio	0.91	0.79	0.98	0.12	0.70	0.33
Control Delay	66.8	12.6	41.0	0.6	45.3	12.5
Queue Delay	0.0	3.6	9.3	0.0	0.0	0.2
Total Delay	66.8	16.2	50.3	0.6	45.3	12.7
LOS	E	B	D	A	D	B
Approach Delay		24.4	44.3		30.4	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Approach LOS		C	D		C	
Queue Length 50th (ft)	55	289	503	1	97	29
Queue Length 95th (ft)	#181	482	#820	8	#182	77
Internal Link Dist (ft)		453	101		73	
Turn Bay Length (ft)						
Base Capacity (vph)	229	1368	1132	1299	310	527
Starvation Cap Reductn	0	198	0	0	0	0
Spillback Cap Reductn	0	0	41	0	0	57
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.93	1.02	0.12	0.66	0.37

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 79
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 33.7 Intersection LOS: C
Intersection Capacity Utilization 85.1% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Rt. 94 & CR 1A



Rt. 94
CR 21
Shop Rite Drive
Fair Grounds
Rt. 94
Hushom Rd
361
121
240
196
173
681
261
580
157
549
113
550
118
71

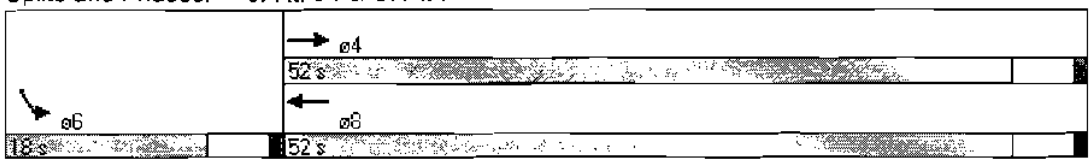
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	
Trailing Detector (ft)	0	0	0		0	
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.977		0.949	
Flt Protected		0.989			0.970	
Satd. Flow (prot)	0	1842	1820	0	1715	0
Flt Permitted		0.624			0.970	
Satd. Flow (perm)	0	1162	1820	0	1715	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			34		39	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		55	55		30	
Link Distance (ft)		533	181		153	
Travel Time (s)		6.6	2.2		3.5	
Volume (vph)	157	549	550	113	118	71
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	171	597	598	123	128	77
Lane Group Flow (vph)	0	768	721	0	205	0
Turn Type	Perm					
Protected Phases		4	8		6	
Permitted Phases	4					
Detector Phases	4	4	8		6	
Minimum Initial (s)	4.0	4.0	4.0		4.0	
Minimum Split (s)	21.0	21.0	21.0		12.0	
Total Split (s)	52.0	52.0	52.0	0.0	18.0	0.0
Total Split (%)	74.3%	74.3%	74.3%	0.0%	25.7%	0.0%
Maximum Green (s)	47.0	47.0	47.0		13.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	
All-Red Time (s)	1.0	1.0	1.0		1.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Recall Mode	Max	Max	Max		Min	
Walk Time (s)	5.0	5.0	5.0		5.0	
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	
Pedestrian Calls (#/hr)	0	0	0		0	
Act Effct Green (s)		48.0	48.0		11.8	
Actuated g/C Ratio		0.71	0.71		0.17	
v/c Ratio		0.93	0.56		0.62	
Control Delay		31.4	6.9		29.6	
Queue Delay		0.0	0.0		0.0	
Total Delay		31.4	6.9		29.6	
LOS		C	A		C	
Approach Delay		31.4	6.9		29.6	
Approach LOS		C	A		C	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Queue Length 50th (ft)		237	116		64	
Queue Length 95th (ft)		#539	203		127	
Internal Link Dist (ft)		453	101		73	
Turn Bay Length (ft)						
Base Capacity (vph)		823	1299		374	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.93	0.56		0.55	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 67.8
Natural Cycle: 55
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 20.8 Intersection LOS: C
Intersection Capacity Utilization 94.3% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Rt. 94 & CR 1A



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		0	0
Storage Lanes		0	1		1	1
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.980					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1825	0	1770	1863	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1825	0	1770	1863	1770	1583
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	55			55	30	
Link Distance (ft)	71			94	96	
Travel Time (s)	0.9			1.2	2.2	
Volume (vph)	330	57	121	361	166	213
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	359	62	132	392	180	232
Lane Group Flow (vph)	421	0	132	392	180	232
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 46.7% ICU Level of Service A
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	330	57	121	361	166	213
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	359	62	132	392	180	232
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				220		
pX, platoon unblocked						
vC, conflicting volume			421		1045	390
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			421		1045	390
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			88		19	65
cM capacity (veh/h)			1138		224	659

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	421	132	392	180	232
Volume Left	0	132	0	180	0
Volume Right	62	0	0	0	232
cSH	1700	1138	1700	224	659
Volume to Capacity	0.25	0.12	0.23	0.81	0.35
Queue Length 95th (ft)	0	10	0	149	39
Control Delay (s)	0.0	8.6	0.0	65.3	13.4
Lane LOS		A		F	B
Approach Delay (s)	0.0	2.2		36.1	
Approach LOS				E	

Intersection Summary			
Average Delay	11.8		
Intersection Capacity Utilization	46.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	1		0	0		0	1		0	1		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.851						0.984			0.997	
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1770	1585	0	0	0	0	1770	1833	0	1770	1857	0
Flt Permitted	0.950						0.950			0.950		
Satd. Flow (perm)	1770	1585	0	0	0	0	1770	1833	0	1770	1857	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			55			55	
Link Distance (ft)		62			80			94			126	
Travel Time (s)		1.4			1.8			1.2			1.6	
Volume (vph)	40	1	237	0	0	0	10	481	58	214	422	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	1	258	0	0	0	11	523	63	233	459	9
Lane Group Flow (vph)	43	259	0	0	0	0	11	586	0	233	468	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 65.4% ICU Level of Service C
Analysis Period (min) 15

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	40	1	237	0	0	0	10	481	58	214	422	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	43	1	258	0	0	0	11	523	63	233	459	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											126	
pX, platoon unblocked	0.81	0.81		0.81	0.81	0.81	0.81					
vC, conflicting volume	1500	1509	554	1731	1536	463	467			586		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1617	1628	554	1903	1662	337	342			586		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	20	98	52	100	100	100	99			76		
cM capacity (veh/h)	55	62	532	18	60	571	985			989		

Direction, Lane #	NB 1	NB 2	NE 1	NE 2	SW 1	SW 2
Volume Total	43	259	11	586	233	467
Volume Left	43	0	11	0	233	0
Volume Right	0	258	0	63	0	9
cSH	55	515	985	1700	989	1700
Volume to Capacity	0.80	0.50	0.01	0.34	0.24	0.27
Queue Length 95th (ft)	85	70	1	0	23	0
Control Delay (s)	185.1	18.8	8.7	0.0	9.8	0.0
Lane LOS	F	C	A		A	
Approach Delay (s)	42.7		0.2		3.2	
Approach LOS	E					

Intersection Summary			
Average Delay	9.6		
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		

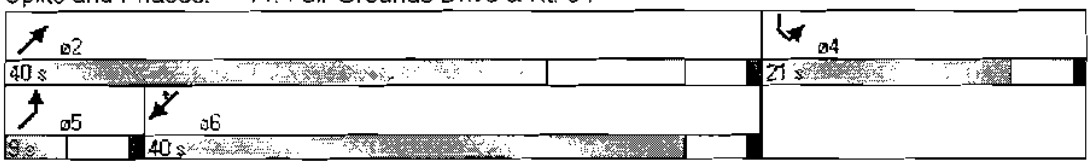
Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	100			100
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583
Flt Permitted	0.950		0.231			
Satd. Flow (perm)	1770	1583	430	1863	1863	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		213				239
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			55	55	
Link Distance (ft)	136			126	533	
Travel Time (s)	3.1			1.6	6.6	
Volume (vph)	240	196	173	681	580	261
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	261	213	188	740	630	284
Lane Group Flow (vph)	261	213	188	740	630	284
Turn Type		Perm	pm+pt			custom
Protected Phases	4		5	2	6	6
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	9.0	21.0	21.0	21.0
Total Split (s)	21.0	21.0	9.0	40.0	40.0	40.0
Total Split (%)	30.0%	30.0%	12.9%	57.1%	57.1%	57.1%
Maximum Green (s)	16.0	16.0	4.0	35.0	35.0	35.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Max	Max	Max
Walk Time (s)	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	14.7	14.7	45.1	45.1	36.1	36.1
Actuated g/C Ratio	0.22	0.22	0.67	0.67	0.53	0.53
v/c Ratio	0.68	0.42	0.49	0.60	0.64	0.30
Control Delay	34.1	6.4	9.2	9.3	15.4	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.1	6.4	9.2	9.3	15.4	3.1
LOS	C	A	A	A	B	A

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Approach Delay	21.7			9.3	11.6	
Approach LOS	C			A	B	
Queue Length 50th (ft)	100	0	27	156	180	9
Queue Length 95th (ft)	173	48	51	259	293	44
Internal Link Dist (ft)	56			46	453	
Turn Bay Length (ft)			100			100
Base Capacity (vph)	430	546	385	1239	991	954
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.39	0.49	0.60	0.64	0.30

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 67.8
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 12.7 — Intersection LOS: B
Intersection Capacity Utilization 63.4% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 11: Fair Grounds Drive & Rt. 94



Rt. 94
Fair Grounds
Shop Rite Drive
CR 21
Rt. 94
1A
119
578
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206
182
715
379
127
347
60
443
223
249
43
11
306
61
224
174

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	
Trailing Detector (ft)	0	0	0		0	
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.977		0.949	
Flt Protected		0.989			0.970	
Satd. Flow (prot)	0	1842	1820	0	1715	0
Flt Permitted		0.589			0.970	
Satd. Flow (perm)	0	1097	1820	0	1715	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			34		39	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		55	55		30	
Link Distance (ft)		533	181		153	
Travel Time (s)		6.6	2.2		3.5	
Volume (vph)	157	549	550	113	118	71
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	179	627	628	129	135	81
Lane Group Flow (vph)	0	806	757	0	216	0
Turn Type	Perm					
Protected Phases		4	8		6	
Permitted Phases	4					
Detector Phases	4	4	8		6	
Minimum Initial (s)	4.0	4.0	4.0		4.0	
Minimum Split (s)	21.0	21.0	21.0		12.0	
Total Split (s)	52.0	52.0	52.0	0.0	18.0	0.0
Total Split (%)	74.3%	74.3%	74.3%	0.0%	25.7%	0.0%
Maximum Green (s)	47.0	47.0	47.0		13.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	
All-Red Time (s)	1.0	1.0	1.0		1.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Recall Mode	Max	Max	Max		Min	
Walk Time (s)	5.0	5.0	5.0		5.0	
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	
Pedestrian Calls (#/hr)	0	0	0		0	
Act Effct Green (s)		48.1	48.1		12.0	
Actuated g/C Ratio		0.71	0.71		0.18	
v/c Ratio		1.04	0.58		0.65	
Control Delay		58.5	7.4		30.7	
Queue Delay		0.0	0.0		0.0	
Total Delay		58.5	7.4		30.7	
LOS		E	A		C	
Approach Delay		58.5	7.4		30.7	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Approach LOS		E	A		C	
Queue Length 50th (ft)		~389	131		69	
Queue Length 95th (ft)		#597	222		134	
Internal Link Dist (ft)		453	101		73	
Turn Bay Length (ft)						
Base Capacity (vph)		775	1295		374	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		1.04	0.58		0.58	

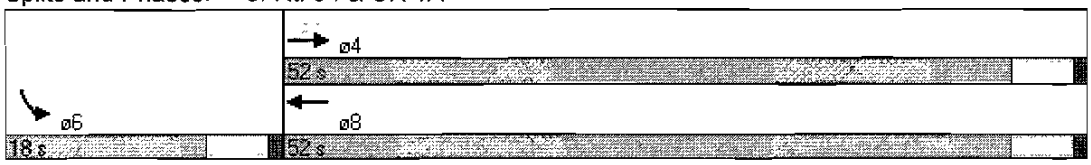
Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 68.1
Natural Cycle: 65
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 33.4 — Intersection LOS: C
Intersection Capacity Utilization 98.5% — ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Rt. 94 & CR 1A



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		0	0
Storage Lanes		0	1		1	1
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.980					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1825	0	1770	1863	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1825	0	1770	1863	1770	1583
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	55			55	30	
Link Distance (ft)	71			94	96	
Travel Time (s)	0.9			1.2	2.2	
Volume (vph)	330	57	121	361	166	213
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	377	65	138	412	189	243
Lane Group Flow (vph)	442	0	138	412	189	243
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 48.6% ICU Level of Service A
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	330	57	121	361	166	213
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	377	65	138	412	189	243
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				220		
pX, platoon unblocked						
vC, conflicting volume			442		1097	409
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			442		1097	409
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			88		8	62
cM capacity (veh/h)			1118		207	642

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	442	138	412	189	243
Volume Left	0	138	0	189	0
Volume Right	65	0	0	0	243
cSH	1700	1118	1700	207	642
Volume to Capacity	0.26	0.12	0.24	0.92	0.38
Queue Length 95th (ft)	0	11	0	186	44
Control Delay (s)	0.0	8.7	0.0	90.6	14.0
Lane LOS		A		F	B
Approach Delay (s)	0.0	2.2		47.5	
Approach LOS				E	

Intersection Summary			
Average Delay	15.3		
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	1		0	0		0	1		0	1		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.851						0.984			0.997	
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1770	1585	0	0	0	0	1770	1833	0	1770	1857	0
Flt Permitted	0.950						0.950			0.950		
Satd. Flow (perm)	1770	1585	0	0	0	0	1770	1833	0	1770	1857	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			55			55	
Link Distance (ft)		62			80			94			126	
Travel Time (s)		1.4			1.8			1.2			1.6	
Volume (vph)	40	1	237	0	0	0	10	481	58	214	422	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	46	1	270	0	0	0	11	549	66	244	482	9
Lane Group Flow (vph)	46	271	0	0	0	0	11	615	0	244	491	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 68.2% ICU Level of Service C
Analysis Period (min) 15

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	40	1	237	0	0	0	10	481	58	214	422	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	46	1	270	0	0	0	11	549	66	244	482	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											126	
pX, platoon unblocked	0.79	0.79		0.79	0.79	0.79	0.79					
vC, conflicting volume	1575	1584	582	1818	1613	486	491			615		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1728	1739	582	2034	1775	350	356			615		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	98	47	100	100	100	99			75		
cM capacity (veh/h)	44	51	513	12	48	548	951			964		

Direction, Lane #	NB 1	NB 2	NE 1	NE 2	SW 1	SW 2
Volume Total	46	272	11	615	244	491
Volume Left	46	0	11	0	244	0
Volume Right	0	270	0	66	0	9
cSH	44	494	951	1700	964	1700
Volume to Capacity	1.04	0.55	0.01	0.36	0.25	0.29
Queue Length 95th (ft)	106	82	1	0	25	0
Control Delay (s)	292.8	20.8	8.8	0.0	10.0	0.0
Lane LOS	F	C	A		A	
Approach Delay (s)	60.0		0.2		3.3	
Approach LOS	F					

Intersection Summary			
Average Delay	12.8		
Intersection Capacity Utilization	68.2%	ICU Level of Service	C
Analysis Period (min)	15		

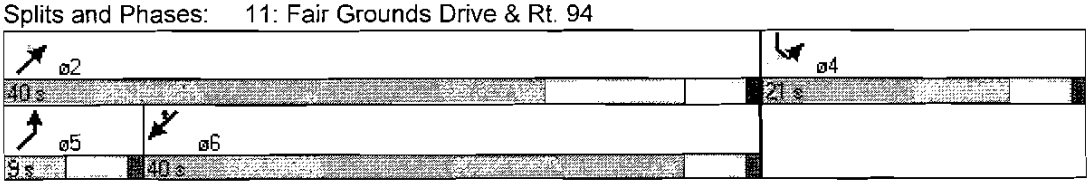
Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	100			100
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583
Flt Permitted	0.950		0.209			
Satd. Flow (perm)	1770	1583	389	1863	1863	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		224				238
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			55	55	
Link Distance (ft)	136			126	533	
Travel Time (s)	3.1			1.6	6.6	
Volume (vph)	240	196	173	681	580	261
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	274	224	197	777	662	298
Lane Group Flow (vph)	274	224	197	777	662	298
Turn Type		Perm	pm+pt			custom
Protected Phases	4		5	2	6	6
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	9.0	21.0	21.0	21.0
Total Split (s)	21.0	21.0	9.0	40.0	40.0	40.0
Total Split (%)	30.0%	30.0%	12.9%	57.1%	57.1%	57.1%
Maximum Green (s)	16.0	16.0	4.0	35.0	35.0	35.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Max	Max	Max
Walk Time (s)	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	14.9	14.9	45.0	45.0	36.0	36.0
Actuated g/C Ratio	0.22	0.22	0.66	0.66	0.53	0.53
v/c Ratio	0.70	0.43	0.55	0.63	0.67	0.31
Control Delay	35.0	6.4	10.9	10.0	16.4	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay	35.0	6.4	10.9	10.0	16.5	3.4

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
LOS	D	A	B	B	B	A
Approach Delay	22.2			10.2	12.5	
Approach LOS	C			B	B	
Queue Length 50th (ft)	106	0	29	175	198	12
Queue Length 95th (ft)	181	49	53	282	317	48
Internal Link Dist (ft)	56			46	453	
Turn Bay Length (ft)			100			100
Base Capacity (vph)	430	554	360	1234	987	951
Starvation Cap Reductn	0	0	0	0	19	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.40	0.55	0.63	0.68	0.31

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 68
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 13.5 — Intersection LOS: B
Intersection Capacity Utilization 66.1% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 11: Fair Grounds Drive & Rt. 94



PM Build 2014 Existing Zoning

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	
Trailing Detector (ft)	0	0	0		0	
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.977		0.949	
Flt Protected		0.989			0.970	
Satd. Flow (prot)	0	1842	1820	0	1715	0
Flt Permitted		0.133			0.970	
Satd. Flow (perm)	0	248	1820	0	1715	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			33		39	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		55	55		30	
Link Distance (ft)		533	181		153	
Travel Time (s)		6.6	2.2		3.5	
Volume (vph)	255	893	894	182	197	120
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	277	971	972	198	214	130
Lane Group Flow (vph)	0	1248	1170	0	344	0
Turn Type	Perm					
Protected Phases		4	8		6	
Permitted Phases	4					
Detector Phases	4	4	8		6	
Minimum Initial (s)	4.0	4.0	4.0		4.0	
Minimum Split (s)	21.0	21.0	21.0		12.0	
Total Split (s)	52.0	52.0	52.0	0.0	18.0	0.0
Total Split (%)	74.3%	74.3%	74.3%	0.0%	25.7%	0.0%
Maximum Green (s)	47.0	47.0	47.0		13.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	
All-Red Time (s)	1.0	1.0	1.0		1.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Recall Mode	Max	Max	Max		Min	
Walk Time (s)	5.0	5.0	5.0		5.0	
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	
Pedestrian Calls (#/hr)	0	0	0		0	
Act Effct Green (s)		48.0	48.0		14.0	
Actuated g/C Ratio		0.69	0.69		0.20	
v/c Ratio		7.34	0.93		0.92	
Control Delay		2873.0	24.8		57.6	
Queue Delay		0.0	8.7		15.7	
Total Delay		2873.0	33.5		73.3	
LOS		F	C		E	
Approach Delay		2873.0	33.5		73.3	
Approach LOS		F	C		E	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Queue Length 50th (ft)		~1021	350		130	
Queue Length 95th (ft)		#1258	#722		#282	
Internal Link Dist (ft)		453	101		73	
Turn Bay Length (ft)						
Base Capacity (vph)		170	1258		374	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	84		32	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		7.34	1.00		1.01	

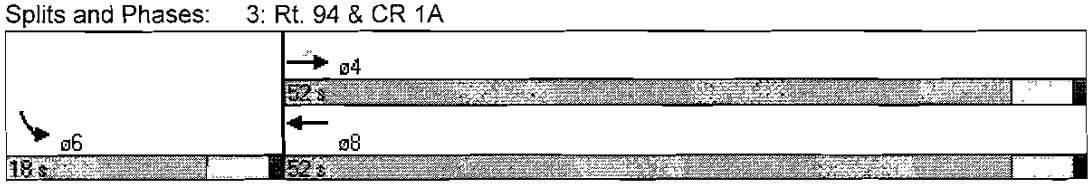
Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Natural Cycle: 150
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 7.34
Intersection Signal Delay: 1321.5 — Intersection LOS: F
Intersection Capacity Utilization 147.5% — ICU Level of Service H
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Rt. 94 & CR 1A



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		0	0
Storage Lanes		0	1		1	1
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.979					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1824	0	1770	1863	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1824	0	1770	1863	1770	1583
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	55			55	30	
Link Distance (ft)	71			94	96	
Travel Time (s)	0.9			1.2	2.2	
Volume (vph)	585	106	219	646	293	507
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	636	115	238	702	318	551
Lane Group Flow (vph)	751	0	238	702	318	551
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 75.6% ICU Level of Service D
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	585	106	219	646	293	507
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	636	115	238	702	318	551
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				220		
pX, platoon unblocked						
vC, conflicting volume			751		1872	693
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			751		1872	693
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			72		0	0
cM capacity (veh/h)			858		57	443

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	751	238	702	318	551
Volume Left	0	238	0	318	0
Volume Right	115	0	0	0	551
cSH	1700	858	1700	57	443
Volume to Capacity	0.44	0.28	0.41	5.57	1.24
Queue Length 95th (ft)	0	28	0	Err	566
Control Delay (s)	0.0	10.8	0.0	Err	154.9
Lane LOS		B		F	F
Approach Delay (s)	0.0	2.7		3760.3	
Approach LOS				F	

Intersection Summary			
Average Delay	1277.8		
Intersection Capacity Utilization	75.6%	ICU Level of Service	D
Analysis Period (min)	15		

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	1		0	0		0	1		0	1		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.851						0.989			0.998	
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1770	1585	0	0	0	0	1770	1842	0	1770	1859	0
Flt Permitted	0.950						0.950			0.950		
Satd. Flow (perm)	1770	1585	0	0	0	0	1770	1842	0	1770	1859	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			55			55	
Link Distance (ft)		62			80			94			126	
Travel Time (s)		1.4			1.8			1.2			1.6	
Volume (vph)	40	1	237	0	0	0	10	805	58	214	697	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	105%	105%	105%	100%	100%	100%	105%	100%	105%	105%	100%	105%
Adj. Flow (vph)	46	1	270	0	0	0	11	875	66	244	758	9
Lane Group Flow (vph)	46	271	0	0	0	0	11	941	0	244	767	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 84.0% ICU Level of Service E
Analysis Period (min) 15

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	40	1	237	0	0	0	10	805	58	214	697	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	46	1	270	0	0	0	11	875	66	244	758	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											126	
pX, platoon unblocked	0.56	0.56		0.56	0.56	0.56	0.56					
vC, conflicting volume	2177	2186	908	2420	2215	762	767			941		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	3104	3120	908	3537	3171	575	583			941		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	72	19	100	100	100	98			66		
cM capacity (veh/h)	3	4	334	0	4	290	555			728		

Direction, Lane #	NB 1	NB 2	NE 1	NE 2	SW 1	SW 2
Volume Total	46	272	11	941	244	767
Volume Left	46	0	11	0	244	0
Volume Right	0	270	0	66	0	9
cSH	3	250	555	1700	728	1700
Volume to Capacity	15.91	1.09	0.02	0.55	0.34	0.45
Queue Length 95th (ft)	Err	289	2	0	37	0
Control Delay (s)	Err	125.5	11.6	0.0	12.4	0.0
Lane LOS	F	F	B		B	
Approach Delay (s)	1546.2		0.1		3.0	
Approach LOS	F					

Intersection Summary			
Average Delay	216.5		
Intersection Capacity Utilization	84.0%	ICU Level of Service	E
Analysis Period (min)	15		

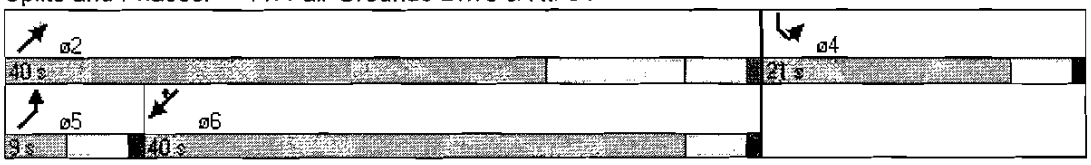
Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	100			100
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583
Flt Permitted	0.950		0.100			
Satd. Flow (perm)	1770	1583	186	1863	1863	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		204				172
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			55	55	
Link Distance (ft)	136			126	533	
Travel Time (s)	3.1			1.6	6.6	
Volume (vph)	240	196	173	995	845	261
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	105%	105%	105%	100%	100%	105%
Adj. Flow (vph)	274	224	197	1082	918	298
Lane Group Flow (vph)	274	224	197	1082	918	298
Turn Type		Perm	pm+pt			custom
Protected Phases	4		5	2	6	6
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	9.0	21.0	21.0	21.0
Total Split (s)	21.0	21.0	9.0	40.0	40.0	40.0
Total Split (%)	30.0%	30.0%	12.9%	57.1%	57.1%	57.1%
Maximum Green (s)	16.0	16.0	4.0	35.0	35.0	35.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Max	Max	Max
Walk Time (s)	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	14.9	14.9	45.0	45.0	36.0	36.0
Actuated g/C Ratio	0.22	0.22	0.66	0.66	0.53	0.53
v/c Ratio	0.70	0.44	0.82	0.88	0.93	0.32
Control Delay	35.0	7.8	40.1	20.7	33.9	5.2
Queue Delay	0.0	0.0	0.0	0.0	1.1	0.0
Total Delay	35.0	7.8	40.1	20.7	35.0	5.2

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
LOS	D	A	D	C	D	A
Approach Delay	22.8			23.7	27.7	
Approach LOS	C			C	C	
Queue Length 50th (ft)	106	7	32	337	350	26
Queue Length 95th (ft)	181	57	#144	#664	#614	66
Internal Link Dist (ft)	56			46	453	
Turn Bay Length (ft)			100			100
Base Capacity (vph)	430	539	240	1234	987	920
Starvation Cap Reductn	0	0	0	0	14	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.42	0.82	0.88	0.94	0.32

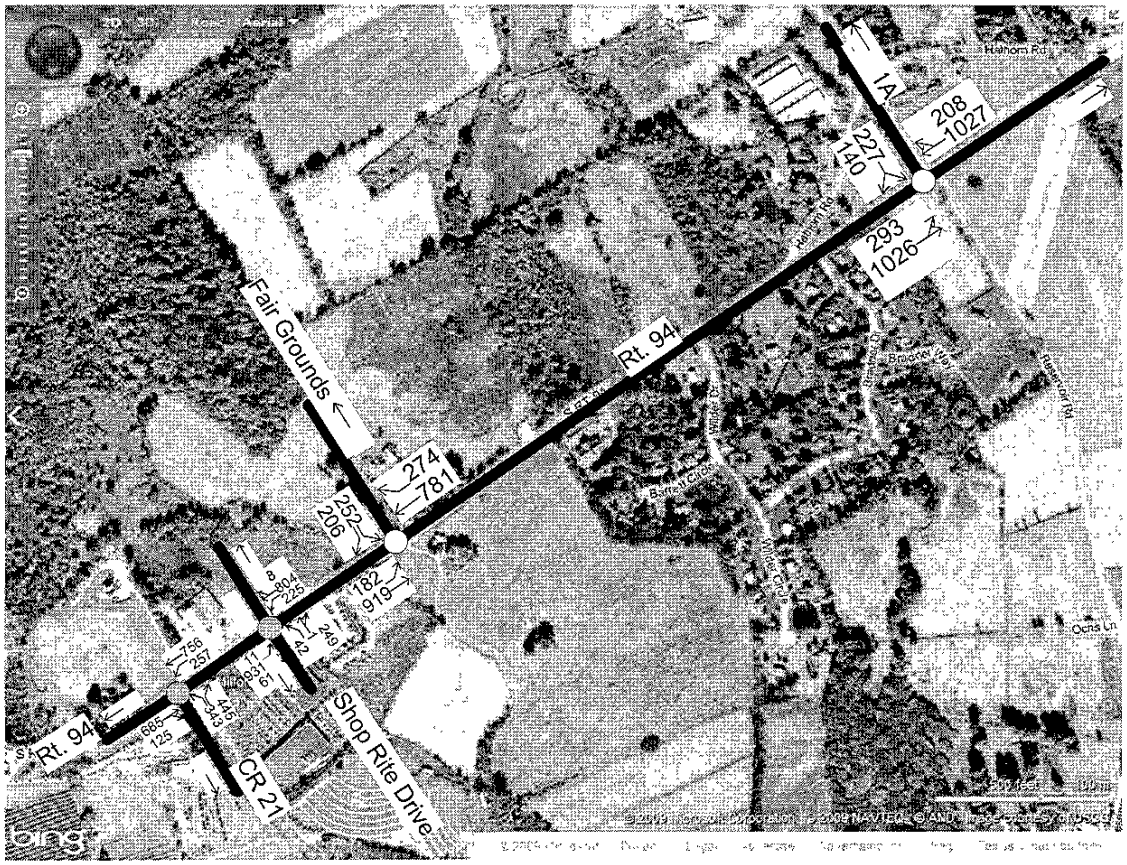
Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 68
Natural Cycle: 80
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 25.2 Intersection LOS: C
Intersection Capacity Utilization 78.5% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Fair Grounds Drive & Rt. 94



PM Build 2014 Proposed Zoning



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	
Trailing Detector (ft)	0	0	0		0	
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.977		0.949	
Flt Protected		0.989			0.970	
Satd. Flow (prot)	0	1842	1820	0	1715	0
Flt Permitted		0.051			0.970	
Satd. Flow (perm)	0	95	1820	0	1715	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			33		40	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		55	55		30	
Link Distance (ft)		533	181		153	
Travel Time (s)		6.6	2.2		3.5	
Volume (vph)	293	1026	1027	208	227	140
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	318	1115	1116	226	247	152
Lane Group Flow (vph)	0	1433	1342	0	399	0
Turn Type	Perm					
Protected Phases		4	8		6	
Permitted Phases	4					
Detector Phases	4	4	8		6	
Minimum Initial (s)	4.0	4.0	4.0		4.0	
Minimum Split (s)	21.0	21.0	21.0		12.0	
Total Split (s)	52.0	52.0	52.0	0.0	18.0	0.0
Total Split (%)	74.3%	74.3%	74.3%	0.0%	25.7%	0.0%
Maximum Green (s)	47.0	47.0	47.0		13.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	
All-Red Time (s)	1.0	1.0	1.0		1.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Recall Mode	Max	Max	Max		Min	
Walk Time (s)	5.0	5.0	5.0		5.0	
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	
Pedestrian Calls (#/hr)	0	0	0		0	
Act Effct Green (s)		48.0	48.0		14.0	
Actuated g/C Ratio		0.69	0.69		0.20	
v/c Ratio		22.05	1.07		1.06	
Control Delay		9502.3	59.6		92.7	
Queue Delay		0.0	22.2		33.4	
Total Delay		9502.3	81.8		126.2	
LOS		F	F		F	
Approach Delay		9502.3	81.8		126.2	
Approach LOS		F	F		F	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Queue Length 50th (ft)		~1293	~651		~179	
Queue Length 95th (ft)		#1538	#892		#343	
Internal Link Dist (ft)		453	101		73	
Turn Bay Length (ft)						
Base Capacity (vph)		65	1258		375	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	60		28	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		22.05	1.12		1.15	

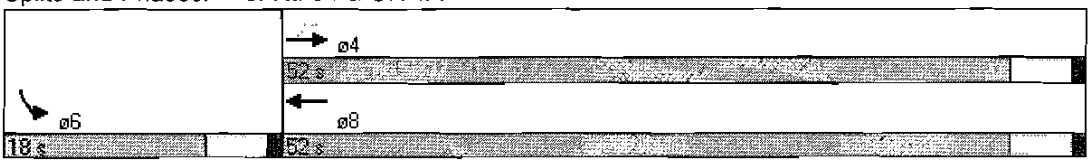
Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Natural Cycle: 150
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 22.05
Intersection Signal Delay: 4340.6 — Intersection LOS: F
Intersection Capacity Utilization 168.0% — ICU Level of Service H
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Rt. 94 & CR 1A



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		0	0
Storage Lanes		0	1		1	1
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.979					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1824	0	1770	1863	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1824	0	1770	1863	1770	1583
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	55			55	30	
Link Distance (ft)	71			94	96	
Travel Time (s)	0.9			1.2	2.2	
Volume (vph)	685	125	257	756	343	445
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	745	136	279	822	373	484
Lane Group Flow (vph)	881	0	279	822	373	484
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 86.9% ICU Level of Service E
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	685	125	257	756	343	445
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	745	136	279	822	373	484
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				220		
pX, platoon unblocked					0.66	
vC, conflicting volume			880		2193	812
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			880		2811	812
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			64		0	0
cM capacity (veh/h)			768		8	379

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	880	279	822	373	484
Volume Left	0	279	0	373	0
Volume Right	136	0	0	0	484
cSH	1700	768	1700	8	379
Volume to Capacity	0.52	0.36	0.48	44.53	1.28
Queue Length 95th (ft)	0	42	0	Err	539
Control Delay (s)	0.0	12.3	0.0	Err	173.6
Lane LOS		B		F	F
Approach Delay (s)	0.0	3.1		4450.4	
Approach LOS				F	

Intersection Summary			
Average Delay	1344.4		
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
Analysis Period (min)	15		

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	1		0	0		0	1		0	1		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.851						0.991			0.998	
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1770	1585	0	0	0	0	1770	1846	0	1770	1859	0
Flt Permitted	0.950						0.950			0.950		
Satd. Flow (perm)	1770	1585	0	0	0	0	1770	1846	0	1770	1859	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			55			55	
Link Distance (ft)		62			80			94			126	
Travel Time (s)		1.4			1.8			1.2			1.6	
Volume (vph)	40	1	237	0	0	0	10	931	58	214	804	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	105%	105%	105%	100%	100%	100%	105%	100%	105%	105%	100%	105%
Adj. Flow (vph)	46	1	270	0	0	0	11	1012	66	244	874	9
Lane Group Flow (vph)	46	271	0	0	0	0	11	1078	0	244	883	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 90.6% ICU Level of Service E
Analysis Period (min) 15

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	40	1	237	0	0	0	10	931	58	214	804	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	46	1	270	0	0	0	11	1012	66	244	874	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											126	
pX, platoon unblocked	0.61	0.61		0.61	0.61	0.61	0.61					
vC, conflicting volume	2430	2439	1045	2673	2468	878	883			1078		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	3342	3357	1045	3739	3403	801	809			1078		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	61	3	100	100	100	98			62		
cM capacity (veh/h)	2	3	278	0	3	235	499			647		

Direction, Lane #	NB 1	NB 2	NE 1	NE 2	SW 1	SW 2
Volume Total	46	272	11	1078	244	883
Volume Left	46	0	11	0	244	0
Volume Right	0	270	0	66	0	9
cSH	2	199	499	1700	647	1700
Volume to Capacity	22.98	1.36	0.02	0.63	0.38	0.52
Queue Length 95th (ft)	Err	390	2	0	44	0
Control Delay (s)	Err	238.4	12.4	0.0	13.9	0.0
Lane LOS	F	F	B		B	
Approach Delay (s)	1642.8		0.1		3.0	
Approach LOS	F					

Intersection Summary			
Average Delay	207.1		
Intersection Capacity Utilization	90.6%	ICU Level of Service	E
Analysis Period (min)	15		

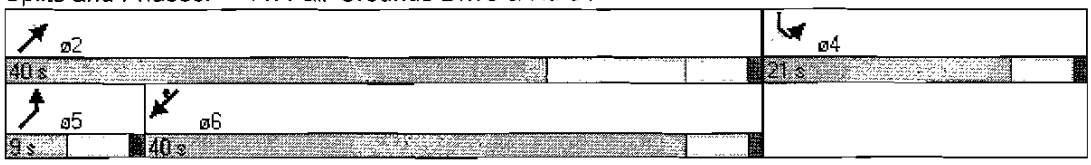
Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	100			100
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583
Flt Permitted	0.950		0.100			
Satd. Flow (perm)	1770	1583	186	1863	1863	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		223				186
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			55	55	
Link Distance (ft)	136			126	533	
Travel Time (s)	3.1			1.6	6.6	
Volume (vph)	240	196	173	919	781	261
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	105%	105%	105%	100%	100%	105%
Adj. Flow (vph)	274	224	197	999	849	298
Lane Group Flow (vph)	274	224	197	999	849	298
Turn Type		Perm	pm+pt			custom
Protected Phases	4		5	2	6	6
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	9.0	21.0	21.0	21.0
Total Split (s)	21.0	21.0	9.0	40.0	40.0	40.0
Total Split (%)	30.0%	30.0%	12.9%	57.1%	57.1%	57.1%
Maximum Green (s)	16.0	16.0	4.0	35.0	35.0	35.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Max	Max	Max
Walk Time (s)	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	14.9	14.9	45.0	45.0	36.0	36.0
Actuated g/C Ratio	0.22	0.22	0.66	0.66	0.53	0.53
v/c Ratio	0.70	0.43	0.82	0.81	0.86	0.32
Control Delay	35.0	6.5	40.1	16.1	25.9	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.4	0.0
Total Delay	35.0	6.5	40.1	16.1	26.3	4.8

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
LOS	D	A	D	B	C	A
Approach Delay	22.2			20.1	20.7	
Approach LOS	C			C	C	
Queue Length 50th (ft)	106	0	32	281	301	23
Queue Length 95th (ft)	181	49	#144	#584	#546	62
Internal Link Dist (ft)	56			46	453	
Turn Bay Length (ft)			100			100
Base Capacity (vph)	430	553	240	1234	987	926
Starvation Cap Reductn	0	0	0	0	15	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.41	0.82	0.81	0.87	0.32

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 68
Natural Cycle: 75
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 20.7 — Intersection LOS: C
Intersection Capacity Utilization 75.1% — ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Fair Grounds Drive & Rt. 94



PM Build 2014 Proposed Zoning

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	
Trailing Detector (ft)	0	0	0		0	
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.977		0.949	
Flt Protected		0.989			0.970	
Satd. Flow (prot)	0	1842	1820	0	1715	0
Flt Permitted		0.051			0.970	
Satd. Flow (perm)	0	95	1820	0	1715	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			33		40	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		55	55		30	
Link Distance (ft)		533	181		153	
Travel Time (s)		6.6	2.2		3.5	
Volume (vph)	293	1026	1027	208	227	140
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	318	1115	1116	226	247	152
Lane Group Flow (vph)	0	1433	1342	0	399	0
Turn Type	Perm					
Protected Phases		4	8		6	
Permitted Phases	4					
Detector Phases	4	4	8		6	
Minimum Initial (s)	4.0	4.0	4.0		4.0	
Minimum Split (s)	21.0	21.0	21.0		12.0	
Total Split (s)	52.0	52.0	52.0	0.0	18.0	0.0
Total Split (%)	74.3%	74.3%	74.3%	0.0%	25.7%	0.0%
Maximum Green (s)	47.0	47.0	47.0		13.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	
All-Red Time (s)	1.0	1.0	1.0		1.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Recall Mode	Max	Max	Max		Min	
Walk Time (s)	5.0	5.0	5.0		5.0	
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	
Pedestrian Calls (#/hr)	0	0	0		0	
Act Effct Green (s)		48.0	48.0		14.0	
Actuated g/C Ratio		0.69	0.69		0.20	
v/c Ratio		22.05	1.07		1.06	
Control Delay		9502.3	59.6		92.7	
Queue Delay		0.0	22.2		33.4	
Total Delay		9502.3	81.8		126.2	
LOS		F	F		F	
Approach Delay		9502.3	81.8		126.2	
Approach LOS		F	F		F	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Queue Length 50th (ft)		~1293	~651		~179	
Queue Length 95th (ft)		#1538	#892		#343	
Internal Link Dist (ft)		453	101		73	
Turn Bay Length (ft)						
Base Capacity (vph)		65	1258		375	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	60		28	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		22.05	1.12		1.15	

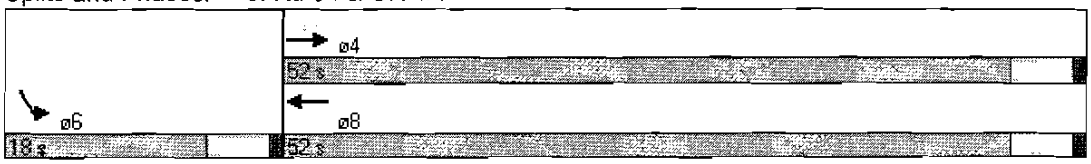
Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Natural Cycle: 150
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 22.05
Intersection Signal Delay: 4340.6 Intersection LOS: F
Intersection Capacity Utilization 168.0% ICU Level of Service H
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Rt. 94 & CR 1A



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		0	0
Storage Lanes		0	1		1	1
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.979					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1824	0	1770	1863	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1824	0	1770	1863	1770	1583
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	55			55	30	
Link Distance (ft)	71			94	96	
Travel Time (s)	0.9			1.2	2.2	
Volume (vph)	685	125	257	756	343	445
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	745	136	279	822	373	484
Lane Group Flow (vph)	881	0	279	822	373	484
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 86.9% ICU Level of Service E
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	685	125	257	756	343	445
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	745	136	279	822	373	484
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				220		
pX, platoon unblocked					0.66	
vC, conflicting volume			880		2193	812
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			880		2811	812
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			64		0	0
cM capacity (veh/h)			768		8	379

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	880	279	822	373	484
Volume Left	0	279	0	373	0
Volume Right	136	0	0	0	484
cSH	1700	768	1700	8	379
Volume to Capacity	0.52	0.36	0.48	44.53	1.28
Queue Length 95th (ft)	0	42	0	Err	539
Control Delay (s)	0.0	12.3	0.0	Err	173.6
Lane LOS		B		F	F
Approach Delay (s)	0.0	3.1		4450.4	
Approach LOS				F	

Intersection Summary			
Average Delay	1344.4		
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
Analysis Period (min)	15		

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	1		0	0		0	1		0	1		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.851						0.991			0.998	
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1770	1585	0	0	0	0	1770	1846	0	1770	1859	0
Flt Permitted	0.950						0.950			0.950		
Satd. Flow (perm)	1770	1585	0	0	0	0	1770	1846	0	1770	1859	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			55			55	
Link Distance (ft)		62			80			94			126	
Travel Time (s)		1.4			1.8			1.2			1.6	
Volume (vph)	40	1	237	0	0	0	10	931	58	214	804	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	105%	105%	105%	100%	100%	100%	105%	100%	105%	105%	100%	105%
Adj. Flow (vph)	46	1	270	0	0	0	11	1012	66	244	874	9
Lane Group Flow (vph)	46	271	0	0	0	0	11	1078	0	244	883	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 90.6% ICU Level of Service E
Analysis Period (min) 15

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	40	1	237	0	0	0	10	931	58	214	804	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	46	1	270	0	0	0	11	1012	66	244	874	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											126	
pX, platoon unblocked	0.61	0.61		0.61	0.61	0.61	0.61					
vC, conflicting volume	2430	2439	1045	2673	2468	878	883			1078		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	3342	3357	1045	3739	3403	801	809			1078		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	61	3	100	100	100	98			62		
cM capacity (veh/h)	2	3	278	0	3	235	499			647		

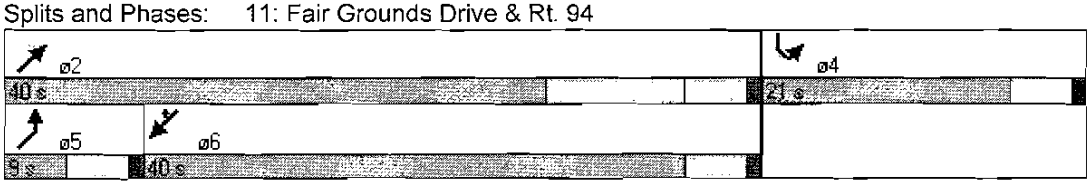
Direction, Lane #	NB 1	NB 2	NE 1	NE 2	SW 1	SW 2
Volume Total	46	272	11	1078	244	883
Volume Left	46	0	11	0	244	0
Volume Right	0	270	0	66	0	9
cSH	2	199	499	1700	647	1700
Volume to Capacity	22.98	1.36	0.02	0.63	0.38	0.52
Queue Length 95th (ft)	Err	390	2	0	44	0
Control Delay (s)	Err	238.4	12.4	0.0	13.9	0.0
Lane LOS	F	F	B		B	
Approach Delay (s)	1642.8		0.1		3.0	
Approach LOS	F					

Intersection Summary			
Average Delay	207.1		
Intersection Capacity Utilization	90.6%	ICU Level of Service	E
Analysis Period (min)	15		

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	100			100
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583
Flt Permitted	0.950		0.100			
Satd. Flow (perm)	1770	1583	186	1863	1863	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		223				186
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			55	55	
Link Distance (ft)	136			126	533	
Travel Time (s)	3.1			1.6	6.6	
Volume (vph)	240	196	173	919	781	261
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	105%	105%	105%	100%	100%	105%
Adj. Flow (vph)	274	224	197	999	849	298
Lane Group Flow (vph)	274	224	197	999	849	298
Turn Type		Perm	pm+pt			custom
Protected Phases	4		5	2	6	6
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	9.0	21.0	21.0	21.0
Total Split (s)	21.0	21.0	9.0	40.0	40.0	40.0
Total Split (%)	30.0%	30.0%	12.9%	57.1%	57.1%	57.1%
Maximum Green (s)	16.0	16.0	4.0	35.0	35.0	35.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Max	Max	Max
Walk Time (s)	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	14.9	14.9	45.0	45.0	36.0	36.0
Actuated g/C Ratio	0.22	0.22	0.66	0.66	0.53	0.53
v/c Ratio	0.70	0.43	0.82	0.81	0.86	0.32
Control Delay	35.0	6.5	40.1	16.1	25.9	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.4	0.0
Total Delay	35.0	6.5	40.1	16.1	26.3	4.8

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
LOS	D	A	D	B	C	A
Approach Delay	22.2			20.1	20.7	
Approach LOS	C			C	C	
Queue Length 50th (ft)	106	0	32	281	301	23
Queue Length 95th (ft)	181	49	#144	#584	#546	62
Internal Link Dist (ft)	56			46	453	
Turn Bay Length (ft)			100			100
Base Capacity (vph)	430	553	240	1234	987	926
Starvation Cap Reductn	0	0	0	0	15	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.41	0.82	0.81	0.87	0.32

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 68
Natural Cycle: 75
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 20.7 Intersection LOS: C
Intersection Capacity Utilization 75.1% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Fair Grounds Drive & Rt. 94