APPENDICES

A1

Collected Traffic Volume Data

SRF & ASSOCIATES
3490 Winton Place, Bldg E, Suite 110
Rochester, NY 14623

File Name : Route75.Highland.PM
Site Code : 11111111
Start Date : 3/2/2007
Page No : 1

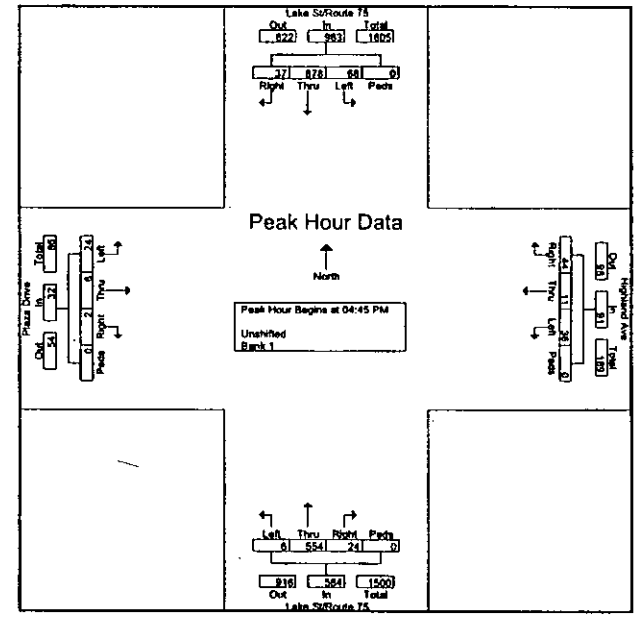
Groups Printed- Unshifted - Bank 1

	Lake St/Route 75 Southbound				Highland Ave Westbound				Lake St/Route 75 Northbound				Plaza Drive Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	7	222	14	0	13	2	6	0	7	168	0	0	0	4	3	0	446
04:15 PM	5	197	17	0	17	5	10	0	7	151	0	0	0	1	2	0	412
04:30 PM	5	193	15	0	19	1	10	0	5	141	0	0	0	0	4	0	393
04:45 PM	11	213	18	0	10	3	9	0	4	130	0	0	0	1	4	0	403
Total	28	825	64	0	59	11	35	0	23	590	0	0	0	6	13	0	1654
05:00 PM	14	245	18	0	8	3	9	0	4	130	4	0	1	0	8	0	444
05:15 PM	8	205	14	0	16	4	8	0	6	139	0	0	1	4	8	0	413
05:30 PM	4	215	18	0	10	1	10	0	10	155	2	0	0	1	4	0	430
05:45 PM	11	192	16	0	5	1	6	0	4	141	0	0	2	1	0	0	379
Total	37	857	66	0	39	9	33	0	24	565	6	0	4	6	20	0	1666
Grand Total	65	1682	130	0	98	20	68	0	47	1155	6	0	4	12	33	0	3320
Apprch %	3.5	89.6	6.9	0	52.7	10.8	36.6	0	3.9	95.6	0.5	0	8.2	24.5	67.3	0	
Total %	2	50.7	3.9	0	3	0.6	2	0	1.4	34.8	0.2	0	0.1	0.4	1	0	
Unshifted	65	1682	130	0	98	20	68	0	47	1155	6	0	4	12	33	0	3320
% Unshifted	100	100	100	0	100	100	100	0	100	100	100	0	100	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF & ASSOCIATES
3490 Winton Place, Bldg E, Suite 110
Rochester, NY 14623

File Name : Route75.Highland.PM
Site Code : 11111111
Start Date : 3/2/2007
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	Lake St/Route 75 Southbound					Highland Ave Westbound					Lake St/Route 75 Northbound					Plaza Drive Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	11	213	18	0	242	10	3	9	0	22	4	130	0	0	134	0	1	4	0	5	403
05:00 PM	14	245	18	0	277	8	3	9	0	20	4	130	4	0	138	1	0	8	0	9	444
05:15 PM	8	205	14	0	227	16	4	8	0	28	6	139	0	0	145	1	4	8	0	13	413
05:30 PM	4	215	18	0	237	10	1	10	0	21	10	155	2	0	167	0	1	4	0	5	430
Total Volume	37	878	68	0	983	44	11	36	0	91	24	554	6	0	584	2	6	24	0	32	1690
% App. Total	3.8	89.3	6.9	0		48.4	12.1	39.6	0		4.1	94.9	1	0		6.2	18.8	75	0		
PHF	.841	.896	.944	.000	.887	.688	.688	.900	.000	.813	.600	.894	.375	.000	.874	.500	.375	.750	.000	.615	.952



SRF & ASSOCIATES
3490 Winton Place, Bldg E, Suite 110
Rochester, NY 14623

File Name : Route75.Highland.SAT
Site Code : 11111111
Start Date : 3/3/2007
Page No : 1

Groups Printed- Unshifted - Bank 1

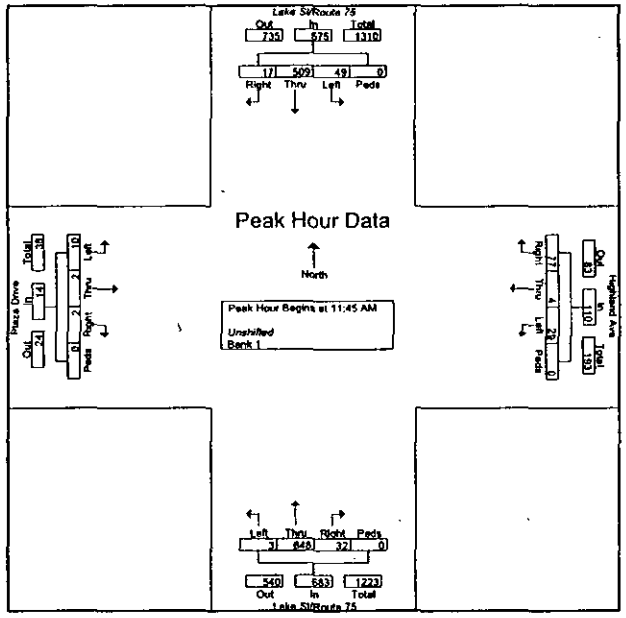
	Lake St/Route 75 Southbound				Highland Ave Westbound				Lake St/Route 75 Northbound				Plaza Drive Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
11:30 AM	4	134	4	0	19	0	3	0	3	139	0	0	1	0	4	0	311
11:45 AM	7	118	18	0	18	3	5	0	11	188	0	0	0	1	2	0	371
Total	11	252	22	0	37	3	8	0	14	327	0	0	1	1	6	0	682
12:00 PM	9	125	17	0	21	1	12	0	8	148	1	0	1	1	4	0	348
12:15 PM	1	142	6	0	22	0	4	0	7	156	0	0	1	0	2	0	341
12:30 PM	0	124	8	0	16	0	8	0	6	156	2	0	0	0	2	0	322
12:45 PM	2	110	13	0	13	0	8	0	5	123	0	0	0	1	2	0	277
Total	12	501	44	0	72	1	32	0	26	583	3	0	2	2	10	0	1288
01:00 PM	4	117	11	0	7	0	8	0	2	123	0	0	0	0	3	0	275
01:15 PM	5	108	6	0	13	2	7	0	5	97	0	0	0	0	7	0	250
Grand Total	32	978	83	0	129	6	55	0	47	1130	3	0	3	3	26	0	2495
Apprch %	2.9	89.5	7.6	0	67.9	3.2	28.9	0	4	95.8	0.3	0	9.4	9.4	81.2	0	
Total %	1.3	39.2	3.3	0	5.2	0.2	2.2	0	1.9	45.3	0.1	0	0.1	0.1	1	0	
Unshifted	32	978	83	0	129	6	55	0	47	1130	3	0	3	3	26	0	2495
% Unshifted	100	100	100	0	100	100	100	0	100	100	100	0	100	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

APPENDIX
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SRF & ASSOCIATES
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Rochester, NY 14623

File Name : Route75.Highland.SAT
Site Code : 11111111
Start Date : 3/3/2007
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	Lake St/Route 75 Southbound					Highland Ave Westbound					Lake St/Route 75 Northbound					Plaza Drive Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	7	118	18	0	143	18	3	5	0	26	11	188	0	0	199	0	1	2	0	3	371
12:00 PM	9	125	17	0	151	21	1	12	0	34	8	148	1	0	157	1	1	4	0	6	348
12:15 PM	1	142	6	0	149	22	0	4	0	26	7	156	0	0	163	1	0	2	0	3	341
12:30 PM	0	124	8	0	132	16	0	8	0	24	6	156	2	0	164	0	0	2	0	2	322
Total Volume	17	509	49	0	575	77	4	29	0	110	32	648	3	0	683	2	2	10	0	14	1382
% App. Total	3	88.5	8.5	0		70	3.6	26.4	0		4.7	94.9	0.4	0		14.3	14.3	71.4	0		
PHF	.472	.896	.681	.000	.952	.875	.333	.604	.000	.809	.727	.862	.375	.000	.858	.500	.500	.625	.000	.583	.931



SRF & ASSOCIATES
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File Name : Route75.Legion.PM
Site Code : 11111111
Start Date : 1/12/2007
Page No : 1

Groups Printed- Unshifted - Bank 1

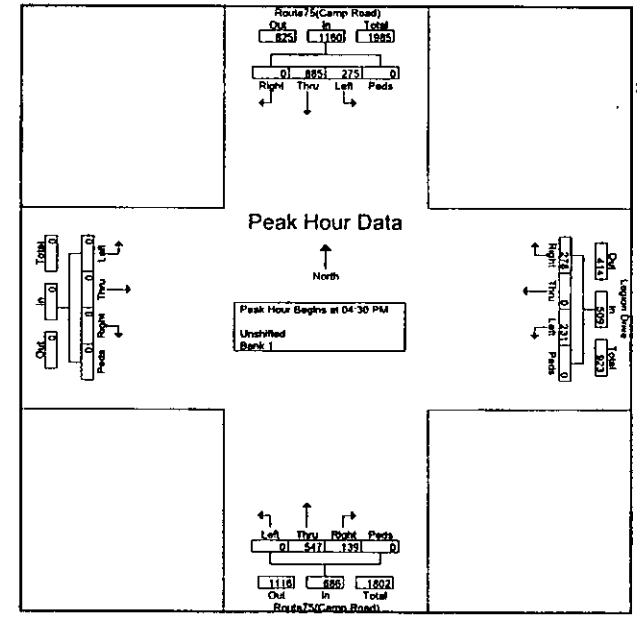
	Route75(Camp Road) Southbound				Legion Drive Westbound				Route75(Camp Road) Northbound				Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	227	83	0	63	0	58	0	26	134	0	0	0	0	0	0	591
04:15 PM	0	210	71	0	73	0	52	0	26	106	0	0	0	0	0	0	538
04:30 PM	0	214	68	0	62	0	60	0	31	131	0	0	0	0	0	0	566
04:45 PM	0	195	59	0	67	0	44	0	36	138	0	0	0	0	0	0	539
Total	0	846	281	0	265	0	214	0	119	509	0	0	0	0	0	0	2234
05:00 PM	0	230	82	0	87	0	64	0	36	144	0	0	0	0	0	0	643
05:15 PM	0	246	66	0	62	0	63	0	36	134	0	0	0	0	0	0	607
05:30 PM	0	216	66	0	58	0	43	0	38	134	0	0	0	0	0	0	555
05:45 PM	0	194	72	0	51	0	54	0	37	111	0	0	0	0	0	0	519
Total	0	886	286	0	258	0	224	0	147	523	0	0	0	0	0	0	2324
Grand Total	0	1732	567	0	523	0	438	0	266	1032	0	0	0	0	0	0	4558
Apprch %	0	75.3	24.7	0	54.4	0	45.6	0	20.5	79.5	0	0	0	0	0	0	
Total %	0	38	12.4	0	11.5	0	9.6	0	5.8	22.6	0	0	0	0	0	0	
Unshifted	0	1732	567	0	523	0	438	0	266	1032	0	0	0	0	0	0	4558
% Unshifted	0	100	100	0	100	0	100	0	100	100	0	0	0	0	0	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Rochester, NY 14623

File Name : Route75.Legion.PM
Site Code : 11111111
Start Date : 1/12/2007
Page No : 2

	Route75(Camp Road) Southbound					Legion Drive Westbound					Route75(Camp Road) Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	214	68	0	282	62	0	60	0	122	31	131	0	0	162	0	0	0	0	0	566
04:45 PM	0	195	59	0	254	67	0	44	0	111	36	138	0	0	174	0	0	0	0	0	539
05:00 PM	0	230	82	0	312	87	0	64	0	151	36	144	0	0	180	0	0	0	0	0	643
05:15 PM	0	246	66	0	312	62	0	63	0	125	36	134	0	0	170	0	0	0	0	0	607
Total Volume	0	885	275	0	1160	278	0	231	0	509	139	547	0	0	686	0	0	0	0	0	2355
% App. Total	0	76.3	23.7	0		54.6	0	45.4	0		20.3	79.7	0	0		0	0	0	0		
PHF	.000	.899	.838	.000	.929	.799	.000	.902	.000	.843	.965	.950	.000	.000	.951	.000	.000	.000	.000	.000	.916



SRF & ASSOCIATES
3490 Winton Place, Bldg E, Suite 110
Rochester, NY 14623

File Name : Route75.Legion.SAT
Site Code : 11111111
Start Date : 1/13/2007
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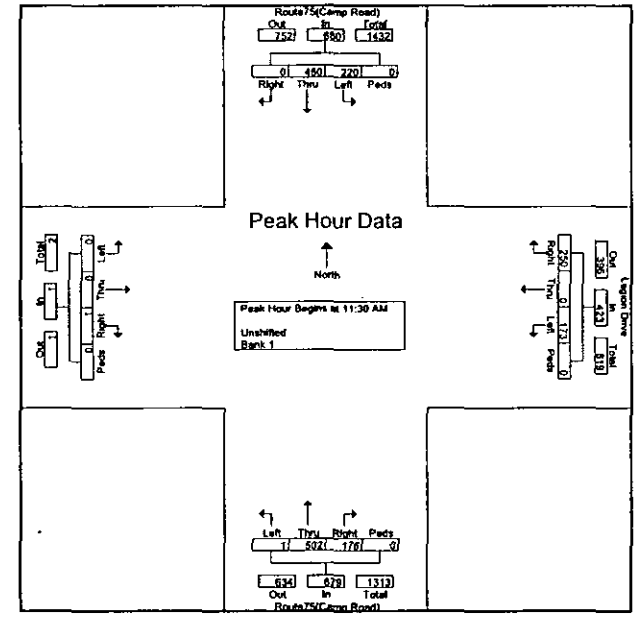
Groups Printed- Unshifted - Bank 1

	Route75(Camp Road) Southbound				Legion Drive Westbound				Route75(Camp Road) Northbound				Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
11:30 AM	0	124	48	0	57	0	49	0	42	151	0	0	1	0	0	0	472
11:45 AM	0	127	55	0	66	0	45	0	45	129	1	0	0	0	0	0	468
Total	0	251	103	0	123	0	94	0	87	280	1	0	1	0	0	0	940
12:00 PM	0	110	52	0	63	0	42	0	38	93	0	0	0	0	0	0	398
12:15 PM	0	99	65	0	64	0	37	0	51	129	0	0	0	0	0	0	445
12:30 PM	0	108	54	0	51	0	45	0	33	107	0	0	0	0	0	0	398
12:45 PM	0	129	55	0	45	0	44	0	47	104	0	0	0	0	0	0	424
Total	0	446	226	0	223	0	168	0	169	433	0	0	0	0	0	0	1665
01:00 PM	0	118	49	0	55	0	38	0	51	139	0	0	0	0	0	0	450
01:15 PM	0	126	50	0	62	0	36	0	33	135	0	0	0	0	0	0	442
Grand Total	0	941	428	0	463	0	336	0	340	987	1	0	1	0	0	0	3497
Apprch %	0	68.7	31.3	0	57.9	0	42.1	0	25.6	74.3	0.1	0	100	0	0	0	
Total %	0	26.9	12.2	0	13.2	0	9.6	0	9.7	28.2	0	0	0	0	0	0	
Unshifted	0	941	428	0	463	0	336	0	340	987	1	0	1	0	0	0	3497
% Unshifted	0	100	100	0	100	0	100	0	100	100	100	0	100	0	0	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF & ASSOCIATES
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Rochester, NY 14623

File Name : Route75.Legion.SAT
Site Code : 11111111
Start Date : 1/13/2007
Page No : 2

	Route75(Camp Road) Southbound					Legion Drive Westbound					Route75(Camp Road) Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:30 AM																					
11:30 AM	0	124	48	0	172	57	0	49	0	106	42	151	0	0	193	1	0	0	0	1	472
11:45 AM	0	127	55	0	182	66	0	45	0	111	45	129	1	0	175	0	0	0	0	0	468
12:00 PM	0	110	52	0	162	63	0	42	0	105	38	93	0	0	131	0	0	0	0	0	398
12:15 PM	0	99	65	0	164	64	0	37	0	101	51	129	0	0	180	0	0	0	0	0	445
Total Volume	0	460	220	0	680	250	0	173	0	423	176	502	1	0	679	1	0	0	0	1	1783
% App. Total	0	67.6	32.4	0		59.1	0	40.9	0		25.9	73.9	0.1	0		100	0	0	0		
PHF	.000	.906	.846	.000	.934	.947	.000	.883	.000	.953	.863	.831	.250	.000	.840	.250	.000	.000	.000	.250	.944



3495 Winton Place
Building E, Suite 110
Rochester, New York 14623

File Name : Route75.Scranton.PM
Site Code : 18888888
Start Date : 1/5/2007
Page No : 1

Groups Printed- Unshifted

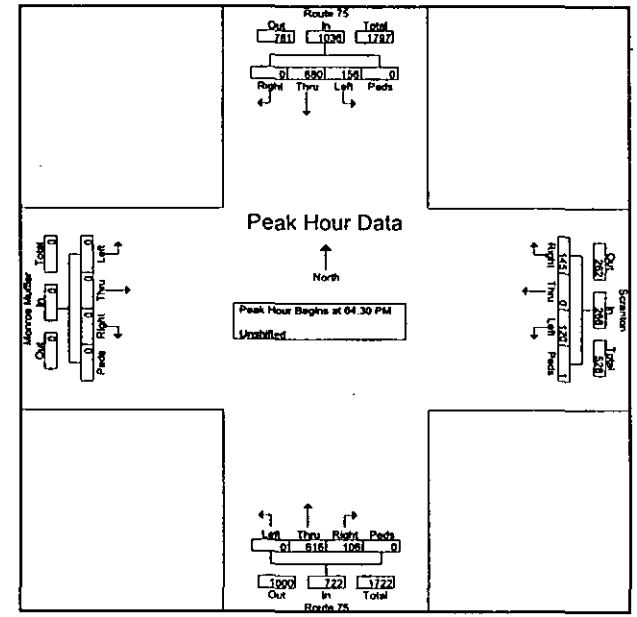
	Route 75 Southbound				Scranton Westbound				Route 75 Northbound				Monroe Muffler Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	178	46	0	34	0	32	0	25	181	0	1	0	0	0	0	497
04:15 PM	0	162	34	0	23	0	37	0	27	161	0	0	0	0	0	0	444
04:30 PM	0	221	32	0	35	0	16	1	20	156	0	0	0	0	0	0	481
04:45 PM	0	229	43	0	35	0	42	0	24	140	0	0	0	0	0	0	513
Total	0	790	155	0	127	0	127	1	96	638	0	1	0	0	0	0	1935
05:00 PM	0	224	40	0	34	0	29	0	29	166	0	0	0	0	0	0	522
05:15 PM	0	206	41	0	41	0	33	0	33	154	0	0	0	0	0	0	508
05:30 PM	0	189	37	0	35	0	28	0	11	158	0	0	0	0	0	0	458
05:45 PM	0	202	38	0	34	0	27	0	22	126	0	0	0	0	0	0	449
Total	0	821	156	0	144	0	117	0	95	604	0	0	0	0	0	0	1937
Grand Total	0	1611	311	0	271	0	244	1	191	1242	0	1	0	0	0	0	3872
Apprch %	0	83.8	16.2	0	52.5	0	47.3	0.2	13.3	86.6	0	0.1	0	0	0	0	
Total %	0	41.6	8	0	7	0	6.3	0	4.9	32.1	0	0	0	0	0	0	

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File Name : Route75.Scranton.PM
Site Code : 18888888
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	Route 75 Southbound					Scranton Westbound					Route 75 Northbound					Monroe Muffler Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	221	32	0	253	35	0	16	1	52	20	156	0	0	176	0	0	0	0	0	481
04:45 PM	0	229	43	0	272	35	0	42	0	77	24	140	0	0	164	0	0	0	0	0	513
05:00 PM	0	224	40	0	264	34	0	29	0	63	29	166	0	0	195	0	0	0	0	0	522
05:15 PM	0	206	41	0	247	41	0	33	0	74	33	154	0	0	187	0	0	0	0	0	508
Total Volume	0	880	156	0	1036	145	0	120	1	266	106	616	0	0	722	0	0	0	0	0	2024
% App. Total	0	84.9	15.1	0		54.5	0	45.1	0.4		14.7	85.3	0	0		0	0	0	0		
PHF	.000	.960	.907	.000	.952	.884	.000	.714	.250	.864	.803	.928	.000	.000	.926	.000	.000	.000	.000	.000	.969



3495 Winton Place
Building E, Suite 110
Rochester, New York 14623

File Name : Route75.Scranton.SAT
Site Code : 28888888
Start Date : 1/6/2007
Page No : 1

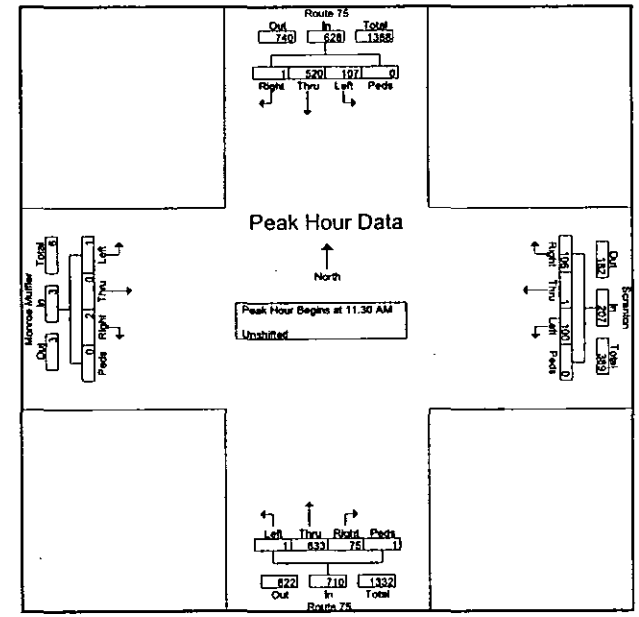
Groups Printed- Unshifted

	Route 75 Southbound				Scranton Westbound				Route 75 Northbound				Monroe Muffler Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
11:30 AM	0	137	28	0	26	1	32	0	18	165	0	0	1	0	0	0	408
11:45 AM	0	132	27	0	33	0	24	0	17	166	0	0	0	0	0	0	399
Total	0	269	55	0	59	1	56	0	35	331	0	0	1	0	0	0	807
12:00 PM	0	112	30	0	22	0	20	0	18	145	1	0	1	0	1	0	350
12:15 PM	1	139	22	0	25	0	24	0	22	157	0	1	0	0	0	0	391
12:30 PM	1	120	35	0	34	0	22	0	16	136	4	0	2	0	0	0	370
12:45 PM	2	129	34	0	31	0	15	0	23	131	0	0	2	0	1	0	368
Total	4	500	121	0	112	0	81	0	79	569	5	1	5	0	2	0	1479
01:00 PM	1	140	32	0	19	0	27	0	17	136	0	0	1	0	0	0	373
01:15 PM	0	145	25	0	26	0	14	0	20	140	0	0	0	0	0	0	370
Grand Total	5	1054	233	0	216	1	178	0	151	1176	5	1	7	0	2	0	3029
Apprch %	0.4	81.6	18	0	54.7	0.3	45.1	0	11.3	88.2	0.4	0.1	77.8	0	22.2	0	
Total %	0.2	34.8	7.7	0	7.1	0	5.9	0	5	38.8	0.2	0	0.2	0	0.1	0	

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File Name : Route75.Scranton.SAT
Site Code : 28888888
Start Date : 1/6/2007
Page No : 2

	Route 75 Southbound					Scranton Westbound					Route 75 Northbound					Monroe Muffler Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:30 AM																					
11:30 AM	0	137	28	0	165	26	1	32	0	59	18	165	0	0	183	1	0	0	0	1	408
11:45 AM	0	132	27	0	159	33	0	24	0	57	17	166	0	0	183	0	0	0	0	0	399
12:00 PM	0	112	30	0	142	22	0	20	0	42	18	145	1	0	164	1	0	1	0	2	350
12:15 PM	1	139	22	0	162	25	0	24	0	49	22	157	0	1	180	0	0	0	0	0	391
Total Volume	1	520	107	0	628	106	1	100	0	207	75	633	1	1	710	2	0	1	0	3	1548
% App. Total	0.2	82.8	17	0		51.2	0.5	48.3	0		10.6	89.2	0.1	0.1		66.7	0	33.3	0		
PHF	.250	.935	.891	.000	.952	.803	.250	.781	.000	.877	.852	.953	.250	.250	.970	.500	.000	.250	.000	.375	.949



3495 Winton Place
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File Name : Route75.Sunset.PM
Site Code : 17777777
Start Date : 1/5/2007
Page No : 1

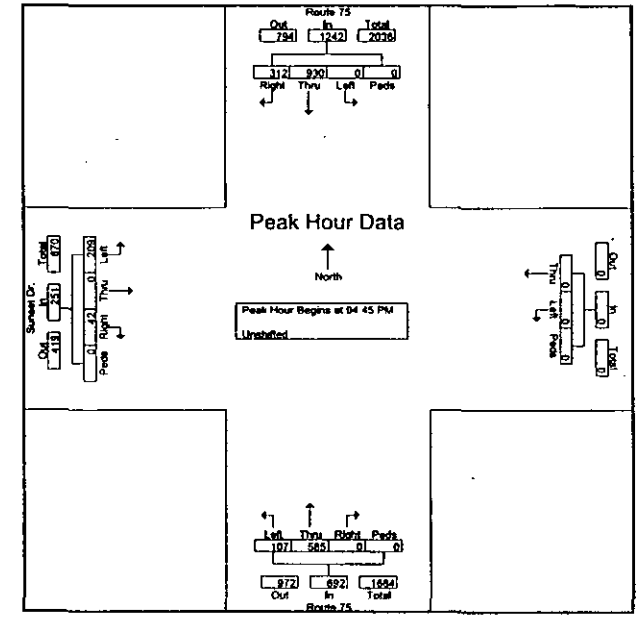
Groups Printed- Unshifted

	Route 75 Southbound				Westbound			Route 75 Northbound				Sunset Dr. Eastbound				
Start Time	Right	Thru	Left	Peds	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	70	202	0	0	0	0	0	0	147	41	0	13	0	49	0	522
04:15 PM	53	195	0	0	0	0	0	0	141	26	0	13	0	57	0	485
04:30 PM	61	218	0	0	0	0	0	0	135	26	0	13	0	40	0	493
04:45 PM	89	254	0	0	0	0	0	0	138	22	0	6	0	48	0	557
Total	273	869	0	0	0	0	0	0	561	115	0	45	0	194	0	2057
05:00 PM	87	245	0	0	0	0	0	0	150	25	0	16	0	51	0	574
05:15 PM	69	215	0	0	0	0	0	0	154	27	0	10	0	53	0	528
05:30 PM	67	216	0	0	0	0	0	0	143	33	0	10	0	57	0	526
05:45 PM	70	230	0	0	0	0	0	0	136	19	0	14	0	51	0	520
Total	293	906	0	0	0	0	0	0	583	104	0	50	0	212	0	2148
Grand Total	566	1775	0	0	0	0	0	0	1144	219	0	95	0	406	0	4205
Apprch %	24.2	75.8	0	0	0	0	0	0	83.9	16.1	0	19	0	81	0	
Total %	13.5	42.2	0	0	0	0	0	0	27.2	5.2	0	2.3	0	9.7	0	

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File Name : Route75.Sunset.PM
Site Code : 17777777
Start Date : 1/5/2007
Page No : 2

	Route 75 Southbound					Westbound				Route 75 Northbound					Sunset Dr. Eastbound					
Start Time	Right	Thru	Left	Peds	App Total	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 04:45 PM																				
04:45 PM	89	254	0	0	343	0	0	0	0	0	138	22	0	160	6	0	48	0	54	557
05:00 PM	87	245	0	0	332	0	0	0	0	0	150	25	0	175	16	0	51	0	67	574
05:15 PM	69	215	0	0	284	0	0	0	0	0	154	27	0	181	10	0	53	0	63	528
05:30 PM	67	216	0	0	283	0	0	0	0	0	143	33	0	176	10	0	57	0	67	526
Total Volume	312	930	0	0	1242	0	0	0	0	0	585	107	0	692	42	0	209	0	251	2185
% App. Total	25.1	74.9	0	0		0	0	0		0	84.5	15.5	0		16.7	0	83.3	0		
PHF	.876	.915	.000	.000	.905	.000	.000	.000	.000	.000	.950	.811	.000	.956	.656	.000	.917	.000	.937	.952



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File Name : Route75.Sunset.SAT
Site Code : 27777777
Start Date : 1/6/2007
Page No : 1

Groups Printed- Unshifted

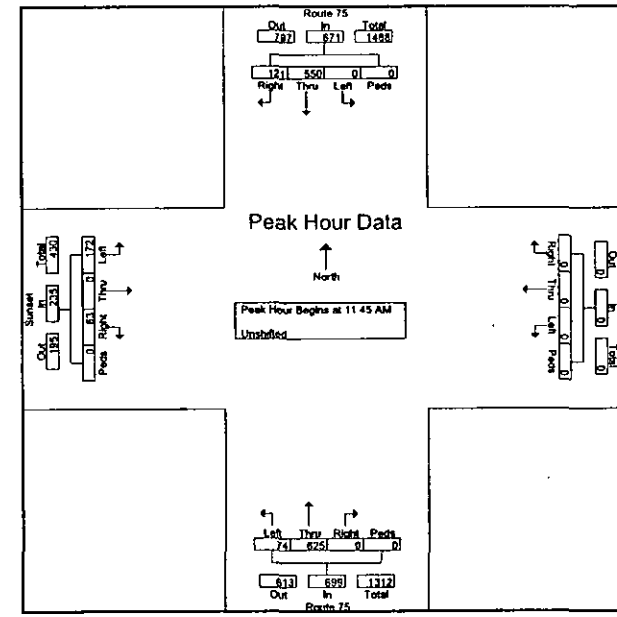
	Route 75 Southbound				Westbound				Route 75 Northbound				Sunset Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
11:30 AM	33	143	0	0	0	0	0	0	0	158	18	0	14	0	37	0	403
11:45 AM	27	142	0	0	0	0	0	0	0	157	22	0	16	0	43	0	407
Total	60	285	0	0	0	0	0	0	0	315	40	0	30	0	80	0	810
12:00 PM	27	137	0	0	0	0	0	0	0	151	19	0	15	0	44	0	393
12:15 PM	39	129	0	0	0	0	0	0	0	162	14	0	16	0	39	0	399
12:30 PM	28	142	0	0	0	0	0	0	0	155	19	0	16	0	46	0	406
12:45 PM	31	120	0	0	0	0	0	0	0	130	19	0	20	0	27	0	347
Total	125	528	0	0	0	0	0	0	0	598	71	0	67	0	156	0	1545
01:00 PM	42	142	0	0	0	0	0	0	0	144	18	0	15	0	34	0	395
01:15 PM	31	136	0	0	0	0	0	0	0	133	20	0	22	0	22	0	364
Grand Total	258	1091	0	0	0	0	0	0	0	1190	149	0	134	0	292	0	3114
Apprch %	19.1	80.9	0	0	0	0	0	0	0	88.9	11.1	0	31.5	0	68.5	0	
Total %	8.3	35	0	0	0	0	0	0	0	38.2	4.8	0	4.3	0	9.4	0	

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File Name : Route75.Sunset.SAT
Site Code : 27777777
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	Route 75 Southbound					Westbound					Route 75 Northbound					Sunset Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	27	142	0	0	169	0	0	0	0	0	0	157	22	0	179	16	0	43	0	59	407
12:00 PM	27	137	0	0	164	0	0	0	0	0	0	151	19	0	170	15	0	44	0	59	393
12:15 PM	39	129	0	0	168	0	0	0	0	0	0	162	14	0	176	16	0	39	0	55	399
12:30 PM	28	142	0	0	170	0	0	0	0	0	0	155	19	0	174	16	0	46	0	62	406
Total Volume	121	550	0	0	671	0	0	0	0	0	0	625	74	0	699	63	0	172	0	235	1605
% App. Total	18	82	0	0		0	0	0	0		0	89.4	10.6	0		26.8	0	73.2	0		
PHF	.776	.968	.000	.000	.987	.000	.000	.000	.000	.000	.000	.965	.841	.000	.976	.984	.000	.935	.000	.948	.986



3495 Winton Place
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File Name : Route75.CommercePlace.PM
Site Code : 10101010
Start Date : 1/5/2007
Page No : 1

Groups Printed- Unshifted

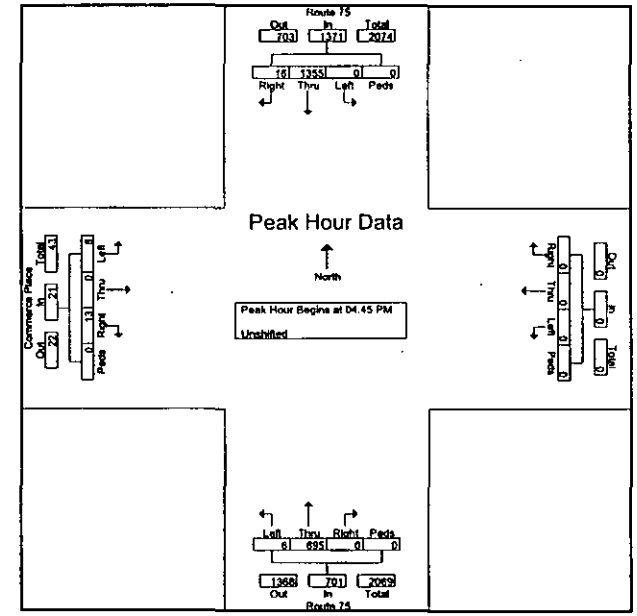
	Route 75 Southbound				Westbound				Route 75 Northbound				Commerce Place Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	2	289	0	0	0	0	0	0	0	203	0	0	3	0	4	0	501
04:15 PM	2	262	0	0	0	0	0	0	0	169	0	0	1	0	1	0	435
04:30 PM	0	298	0	0	0	0	0	0	0	156	1	0	3	0	5	0	463
04:45 PM	2	378	0	0	0	0	0	0	0	175	1	0	2	0	2	0	560
Total	6	1227	0	0	0	0	0	0	0	703	2	0	9	0	12	0	1959
05:00 PM	8	341	0	0	0	0	0	0	0	162	4	0	7	0	0	0	522
05:15 PM	5	324	0	0	0	0	0	0	0	176	0	0	2	0	5	0	512
05:30 PM	1	312	0	0	0	0	0	0	0	182	1	0	2	0	1	0	499
05:45 PM	3	299	0	0	0	0	0	0	0	160	2	0	3	0	1	0	468
Total	17	1276	0	0	0	0	0	0	0	680	7	0	14	0	7	0	2001
Grand Total	23	2503	0	0	0	0	0	0	0	1383	9	0	23	0	19	0	3960
Apprch %	0.9	99.1	0	0	0	0	0	0	0	99.4	0.6	0	54.8	0	45.2	0	
Total %	0.6	63.2	0	0	0	0	0	0	0	34.9	0.2	0	0.6	0	0.5	0	

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File Name : Route75.CommercePlace.PM
Site Code : 10101010
Start Date : 1/5/2007
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	Route 75 Southbound					Westbound					Route 75 Northbound					Commerce Place Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	2	378	0	0	380	0	0	0	0	0	0	175	1	0	176	2	0	2	0	4	560
05:00 PM	8	341	0	0	349	0	0	0	0	0	0	162	4	0	166	7	0	0	0	7	522
05:15 PM	5	324	0	0	329	0	0	0	0	0	0	176	0	0	176	2	0	5	0	7	512
05:30 PM	1	312	0	0	313	0	0	0	0	0	0	182	1	0	183	2	0	1	0	3	499
Total Volume	16	1355	0	0	1371	0	0	0	0	0	0	695	6	0	701	13	0	8	0	21	2093
% App. Total	1.2	98.8	0	0		0	0	0	0		0	99.1	0.9	0		61.9	0	38.1	0		
PHF	.500	.896	.000	.000	.902	.000	.000	.000	.000	.000	.000	.955	.375	.000	.958	.464	.000	.400	.000	.750	.934



3495 Winton Place
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File Name : Route75.CommercePlace.SAT
Site Code : 10101010
Start Date : 1/6/2007
Page No : 1

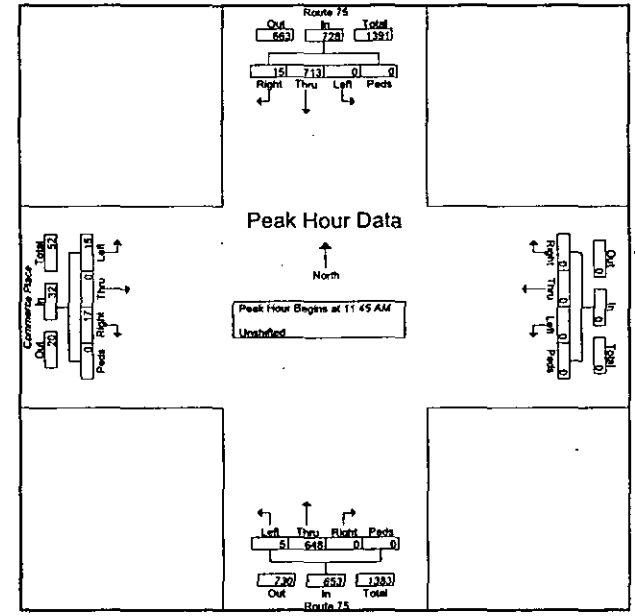
Groups Printed- Unshifted

	Route 75 Southbound				Westbound				Route 75 Northbound				Commerce Place Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
11:30 AM	2	161	0	0	0	0	0	0	0	154	1	0	2	0	3	0	323
11:45 AM	7	172	0	0	0	0	0	0	0	168	2	0	6	0	5	0	360
Total	9	333	0	0	0	0	0	0	0	322	3	0	8	0	8	0	683
12:00 PM	2	191	0	0	0	0	0	0	0	164	1	0	4	0	4	0	366
12:15 PM	3	170	0	0	0	0	0	0	0	148	0	0	3	0	3	0	327
12:30 PM	3	180	0	0	0	0	0	0	0	168	2	0	4	0	3	0	360
12:45 PM	4	161	0	0	0	0	0	0	0	145	1	0	2	0	7	0	320
Total	12	702	0	0	0	0	0	0	0	625	4	0	13	0	17	0	1373
01:00 PM	5	162	0	0	0	0	0	0	0	147	1	0	2	0	2	0	319
01:15 PM	2	172	0	0	0	0	0	0	0	134	1	0	1	0	3	0	313
Grand Total	28	1369	0	0	0	0	0	0	0	1228	9	0	24	0	30	0	2688
Apprch %	2	98	0	0	0	0	0	0	0	99.3	0.7	0	44.4	0	55.6	0	
Total %	1	50.9	0	0	0	0	0	0	0	45.7	0.3	0	0.9	0	1.1	0	

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File Name : Route75.CommercePlace.SAT
Site Code : 10101010
Start Date : 1/6/2007
Page No : 2

	Route 75 Southbound					Westbound					Route 75 Northbound					Commerce Place Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	7	172	0	0	179	0	0	0	0	0	0	168	2	0	170	6	0	5	0	11	360
12:00 PM	2	191	0	0	193	0	0	0	0	0	0	164	1	0	165	4	0	4	0	8	366
12:15 PM	3	170	0	0	173	0	0	0	0	0	0	148	0	0	148	3	0	3	0	6	327
12:30 PM	3	180	0	0	183	0	0	0	0	0	0	168	2	0	170	4	0	3	0	7	360
Total Volume	15	713	0	0	728	0	0	0	0	0	0	648	5	0	653	17	0	15	0	32	1413
% App. Total	2.1	97.9	0	0		0	0	0	0		0	99.2	0.8	0		53.1	0	46.9	0		
PHF	.536	.933	.000	.000	.943	.000	.000	.000	.000	.000	.000	.964	.625	.000	.960	.708	.000	.750	.000	.727	.965



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WB Right = to Rt 75 NB
WB thru = to Rt 75 SB
EB thru = Rt 75 SB to Thruway
EB Right = Rt 75 NB to Thruway

File Name : Rt75.Thruway.Ramps.PM
Site Code : 16666666
Start Date : 1/5/2007
Page No : 1

Groups Printed- Unshifted

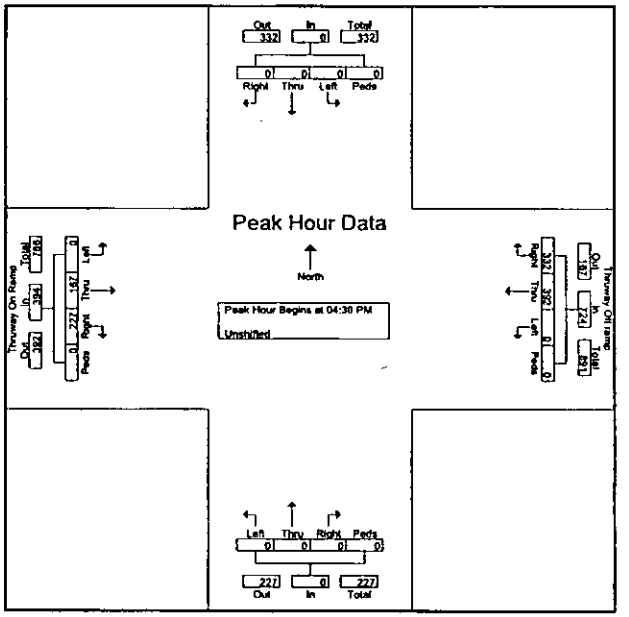
	Southbound				Thruway Off ramp Westbound				Northbound				Thruway On Ramp Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	65	77	0	0	0	0	0	0	78	50	0	0	270
04:15 PM	0	0	0	0	73	92	0	0	0	0	0	0	47	37	0	0	249
04:30 PM	0	0	0	0	86	82	0	0	0	0	0	0	62	44	0	0	274
04:45 PM	0	0	0	0	70	125	0	0	0	0	0	0	42	47	0	0	284
Total	0	0	0	0	294	376	0	0	0	0	0	0	229	178	0	0	1077
05:00 PM	0	0	0	0	70	100	0	0	0	0	0	0	78	40	0	0	288
05:15 PM	0	0	0	0	106	85	0	0	0	0	0	0	45	36	0	0	272
05:30 PM	0	0	0	0	78	74	0	0	0	0	0	0	52	22	0	0	226
05:45 PM	0	0	0	0	74	69	0	0	0	0	0	0	39	36	0	0	218
Total	0	0	0	0	328	328	0	0	0	0	0	0	214	134	0	0	1004
Grand Total	0	0	0	0	622	704	0	0	0	0	0	0	443	312	0	0	2081
Apprch %	0	0	0	0	46.9	53.1	0	0	0	0	0	0	58.7	41.3	0	0	
Total %	0	0	0	0	29.9	33.8	0	0	0	0	0	0	21.3	15	0	0	

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WB Right = to Rt 75 NB
WB thru = to Rt 75 SB
EB thru = Rt 75 SB to Thruway
EB Right = Rt 75 NB to Thruway

File Name : Rt75.Thruway.Ramps.PM
Site Code : 16666666
Start Date : 1/5/2007
Page No : 2

	Southbound					Thruway Off ramp Westbound					Northbound					Thruway On Ramp Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	0	0	86	82	0	0	168	0	0	0	0	0	62	44	0	0	106	274
04:45 PM	0	0	0	0	0	70	125	0	0	195	0	0	0	0	0	42	47	0	0	89	284
05:00 PM	0	0	0	0	0	70	100	0	0	170	0	0	0	0	0	78	40	0	0	118	288
05:15 PM	0	0	0	0	0	106	85	0	0	191	0	0	0	0	0	45	36	0	0	81	272
Total Volume	0	0	0	0	0	332	392	0	0	724	0	0	0	0	0	227	167	0	0	394	1118
% App. Total	0	0	0	0		45.9	54.1	0	0		0	0	0	0		57.6	42.4	0	0		
PHF	.000	.000	.000	.000	.000	.783	.784	.000	.000	.928	.000	.000	.000	.000	.000	.728	.886	.000	.000	.835	.970



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WB Right = to 75 north
WB thru = to 75 south
EB thru = 75 SB to Thruway
EB Right = 75 NB to Thruway

File Name : Rt75.Thruway.Ramps.SAT
Site Code : 26666666
Start Date : 1/6/2007
Page No : 1

Groups Printed- Unshifted

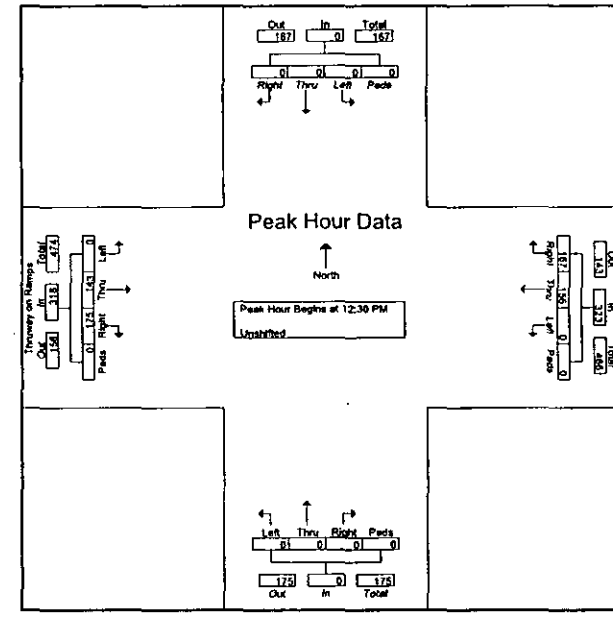
	Southbound				Thruway Off ramps Westbound				Northbound				Thruway on Ramps Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
11:30 AM	0	0	0	0	28	36	0	0	0	0	0	0	48	31	0	0	143
11:45 AM	0	0	0	0	31	39	0	0	0	0	0	0	57	36	0	0	163
Total	0	0	0	0	59	75	0	0	0	0	0	0	105	67	0	0	306
12:00 PM	0	0	0	0	35	36	0	0	0	0	0	0	55	31	1	0	158
12:15 PM	0	0	0	0	31	37	0	0	0	0	0	0	55	38	0	0	161
12:30 PM	0	0	0	0	36	48	0	0	0	0	0	0	34	25	0	0	143
12:45 PM	0	0	0	0	50	26	0	0	0	0	0	0	36	41	0	0	153
Total	0	0	0	0	152	147	0	0	0	0	0	0	180	135	1	0	615
01:00 PM	0	0	0	0	48	40	0	0	0	0	0	0	56	37	0	0	181
01:15 PM	0	0	0	0	33	42	0	0	0	0	0	0	49	40	0	0	164
Grand Total	0	0	0	0	292	304	0	0	0	0	0	0	390	279	1	0	1266
Apprch %	0	0	0	0	49	51	0	0	0	0	0	0	58.2	41.6	0.1	0	
Total %	0	0	0	0	23.1	24	0	0	0	0	0	0	30.8	22	0.1	0	

3495 Winton Place
Building E, Suite 110
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WB Right = to 75 north
WB thru = to 75 south
EB thru = 75 SB to Thruway
EB Right = 75 NB to Thruway

File Name : Rt75.Thruway.Ramps.SAT
Site Code : 26666666
Start Date : 1/6/2007
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	Southbound					Thruway Off ramps Westbound					Northbound					Thruway on Ramps Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30 PM																					
12:30 PM	0	0	0	0	0	36	48	0	0	84	0	0	0	0	0	34	25	0	0	59	143
12:45 PM	0	0	0	0	0	50	26	0	0	76	0	0	0	0	0	36	41	0	0	77	153
01:00 PM	0	0	0	0	0	48	40	0	0	88	0	0	0	0	0	56	37	0	0	93	181
01:15 PM	0	0	0	0	0	33	42	0	0	75	0	0	0	0	0	49	40	0	0	89	164
Total Volume	0	0	0	0	0	167	156	0	0	323	0	0	0	0	0	175	143	0	0	318	641
% App. Total	0	0	0	0		51.7	48.3	0	0		0	0	0	0		55	45	0	0		
PHF	.000	.000	.000	.000	.000	.835	.813	.000	.000	.918	.000	.000	.000	.000	.000	.781	.872	.000	.000	.855	.885



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File Name : Route75.Route20.PM
Site Code : 11111111
Start Date : 1/5/2007
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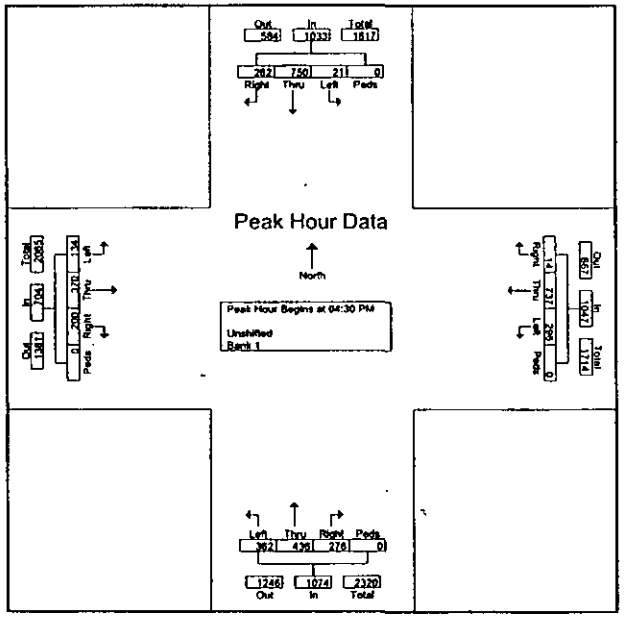
Groups Printed- Unshifted - Bank 1

	Southbound				Westbound				Northbound				Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	82	166	17	0	7	143	75	0	58	120	69	0	33	122	40	0	932
04:15 PM	59	143	6	0	3	149	52	0	53	108	90	0	52	106	25	0	846
04:30 PM	61	181	9	0	7	162	55	0	76	109	90	0	59	100	32	0	941
04:45 PM	64	201	3	0	0	209	52	0	57	115	89	0	45	93	27	0	955
Total	266	691	35	0	17	663	234	0	244	452	338	0	189	421	124	0	3674
05:00 PM	70	189	4	0	5	177	103	0	71	98	96	0	52	94	26	0	985
05:15 PM	67	179	5	0	2	189	86	0	72	114	87	0	44	83	49	0	977
05:30 PM	62	159	6	0	2	163	49	0	62	110	91	0	45	105	26	0	880
05:45 PM	74	191	7	0	2	135	45	0	79	120	103	0	46	89	27	0	918
Total	273	718	22	0	11	664	283	0	284	442	377	0	187	371	128	0	3760
Grand Total	539	1409	57	0	28	1327	517	0	528	894	715	0	376	792	252	0	7434
Apprch %	26.9	70.3	2.8	0	1.5	70.9	27.6	0	24.7	41.8	33.5	0	26.5	55.8	17.7	0	
Total %	7.3	19	0.8	0	0.4	17.9	7	0	7.1	12	9.6	0	5.1	10.7	3.4	0	
Unshifted	539	1409	57	0	28	1327	517	0	528	894	715	0	376	792	252	0	7434
% Unshifted	100	100	100	0	100	100	100	0	100	100	100	0	100	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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File Name : Route75.Route20.PM
Site Code : 11111111
Start Date : 1/5/2007
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	Southbound					Westbound					Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	61	181	9	0	251	7	162	55	0	224	76	109	90	0	275	59	100	32	0	191	941
04:45 PM	64	201	3	0	268	0	209	52	0	261	57	115	89	0	261	45	93	27	0	165	955
05:00 PM	70	189	4	0	263	5	177	103	0	285	71	98	96	0	265	52	94	26	0	172	985
05:15 PM	67	179	5	0	251	2	189	86	0	277	72	114	87	0	273	44	83	49	0	176	977
Total Volume	262	750	21	0	1033	14	737	296	0	1047	276	436	362	0	1074	200	370	134	0	704	3858
% App. Total	25.4	72.6	2	0		1.3	70.4	28.3	0		25.7	40.6	33.7	0		28.4	52.6	19	0		
PHF	.936	.933	.583	.000	.964	.500	.882	.718	.000	.916	.908	.948	.943	.000	.978	.847	.925	.684	.000	.921	.979



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File Name : Route75.Route20.SAT
Site Code : 77777777
Start Date : 1/6/2007
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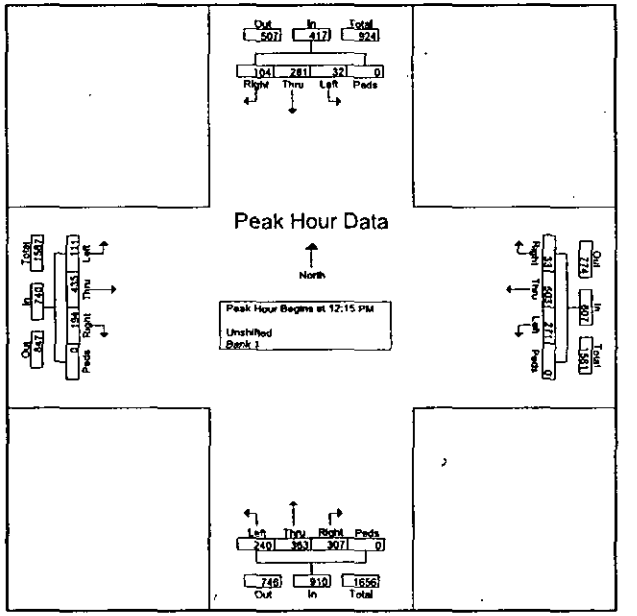
Groups Printed- Unshifted - Bank 1

Start Time	Southbound				Westbound				Northbound				Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
11:30 AM	29	74	10	0	4	93	65	0	81	90	44	0	62	97	38	0	687
11:45 AM	28	100	4	0	3	105	70	0	73	100	37	0	45	105	18	0	688
Total	57	174	14	0	7	198	135	0	154	190	81	0	107	202	56	0	1375
12:00 PM	31	85	8	0	1	99	51	0	74	81	68	0	35	96	28	0	657
12:15 PM	24	66	9	0	3	125	64	0	82	90	69	0	54	97	25	0	708
12:30 PM	27	75	7	0	15	127	71	0	72	80	62	0	48	100	30	0	714
12:45 PM	24	70	12	0	8	126	79	0	77	96	54	0	45	133	25	0	749
Total	106	296	36	0	27	477	265	0	305	347	253	0	182	426	108	0	2828
01:00 PM	29	70	4	0	7	125	57	0	76	97	55	0	47	105	31	0	703
01:15 PM	21	78	5	0	5	106	67	0	60	80	56	0	57	106	19	0	660
Grand Total	213	618	59	0	46	906	524	0	595	714	445	0	393	839	214	0	5566
Apprch %	23.9	69.4	6.6	0	3.1	61.4	35.5	0	33.9	40.7	25.4	0	27.2	58	14.8	0	
Total %	3.8	11.1	1.1	0	0.8	16.3	9.4	0	10.7	12.8	8	0	7.1	15.1	3.8	0	
Unshifted	213	618	59	0	46	906	524	0	595	714	445	0	393	839	214	0	5566
% Unshifted	100	100	100	0	100	100	100	0	100	100	100	0	100	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF & ASSOCIATES
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Rochester, NY 14623

File Name : Route75.Route20.SAT
Site Code : 77777777
Start Date : 1/6/2007
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Start Time	Southbound					Westbound					Northbound					Eastbound					
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:15 PM																					
12:15 PM	24	66	9	0	99	3	125	64	0	192	82	90	69	0	241	54	97	25	0	176	708
12:30 PM	27	75	7	0	109	15	127	71	0	213	72	80	62	0	214	48	100	30	0	178	714
12:45 PM	24	70	12	0	106	8	126	79	0	213	77	96	54	0	227	45	133	25	0	203	749
01:00 PM	29	70	4	0	103	7	125	57	0	189	76	97	55	0	228	47	105	31	0	183	703
Total Volume	104	281	32	0	417	33	503	271	0	807	307	363	240	0	910	194	435	111	0	740	2874
% App. Total	24.9	67.4	7.7	0		4.1	62.3	33.6	0		33.7	39.9	26.4	0		26.2	58.8	15	0		
PHF	.897	.937	.667	.000	.956	.550	.990	.858	.000	.947	.936	.936	.870	.000	.944	.898	.818	.895	.000	.911	.959



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File Name : Route20.Rogers.PM
Site Code : 12222222
Start Date : 1/12/2007
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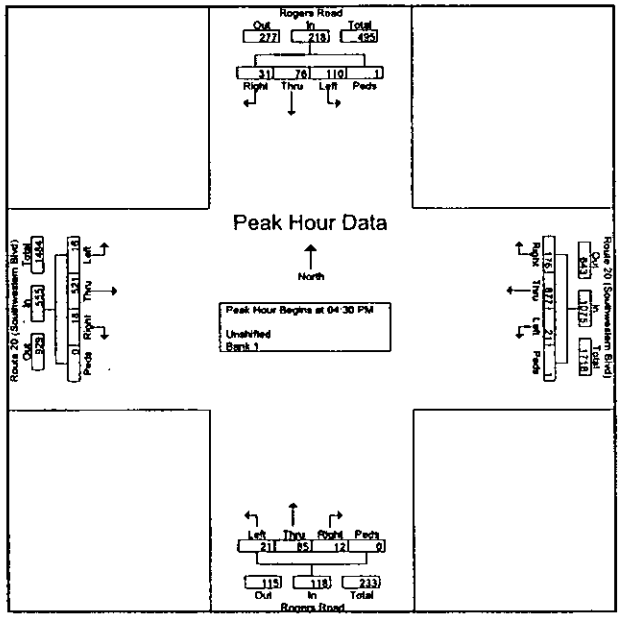
Groups Printed- Unshifted - Bank 1

	Rogers Road Southbound				Route 20 (Southwestern Blvd) Westbound				Rogers Road Northbound				Route 20 (Southwestern Blvd) Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	9	27	21	0	39	157	2	0	4	18	5	1	3	129	7	0	422
04:15 PM	6	26	24	0	35	190	4	1	2	19	5	0	3	132	7	0	454
04:30 PM	13	23	31	0	45	210	4	0	4	21	7	0	5	130	4	0	497
04:45 PM	4	10	29	0	35	220	4	1	3	15	4	0	6	142	5	0	478
Total	32	86	105	0	154	777	14	2	13	73	21	1	17	533	23	0	1851
05:00 PM	9	22	15	0	51	237	8	0	2	22	6	0	4	144	2	0	522
05:15 PM	5	21	35	1	45	210	5	0	3	27	4	0	3	105	5	0	469
05:30 PM	8	17	20	0	34	200	6	0	3	24	7	0	6	113	7	0	445
05:45 PM	9	17	23	0	68	179	6	2	5	21	7	0	5	127	2	0	471
Total	31	77	93	1	198	826	25	2	13	94	24	0	18	489	16	0	1907
Grand Total	63	163	198	1	352	1603	39	4	26	167	45	1	35	1022	39	0	3758
Apprch %	14.8	38.4	46.6	0.2	17.6	80.2	2	0.2	10.9	69.9	18.8	0.4	3.2	93.2	3.6	0	
Total %	1.7	4.3	5.3	0	9.4	42.7	1	0.1	0.7	4.4	1.2	0	0.9	27.2	1	0	
Unshifted	63	163	198	1	352	1603	39	4	26	167	45	1	35	1022	39	0	3758
% Unshifted	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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File Name : Route20.Rogers.PM
Site Code : 12222222
Start Date : 1/12/2007
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	Rogers Road Southbound					Route 20 (Southwestern Blvd) Westbound					Rogers Road Northbound					Route 20 (Southwestern Blvd) Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	13	23	31	0	67	45	210	4	0	259	4	21	7	0	32	5	130	4	0	139	497
04:45 PM	4	10	29	0	43	35	220	4	1	260	3	15	4	0	22	6	142	5	0	153	478
05:00 PM	9	22	15	0	46	51	237	8	0	296	2	22	6	0	30	4	144	2	0	150	522
05:15 PM	5	21	35	1	62	45	210	5	0	260	3	27	4	0	34	3	105	5	0	113	469
Total Volume	31	76	110	1	218	176	877	21	1	1075	12	85	21	0	118	18	521	16	0	555	1966
% App. Total	14.2	34.9	50.5	0.5		16.4	81.6	2	0.1		10.2	72	17.8	0		3.2	93.9	2.9	0		
PHF	.596	.826	.786	.250	.813	.863	.925	.656	.250	.908	.750	.787	.750	.000	.868	.750	.905	.800	.000	.907	.942



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File Name : Route20.Rogers.SAT
Site Code : 22222222
Start Date : 1/13/2007
Page No : 1

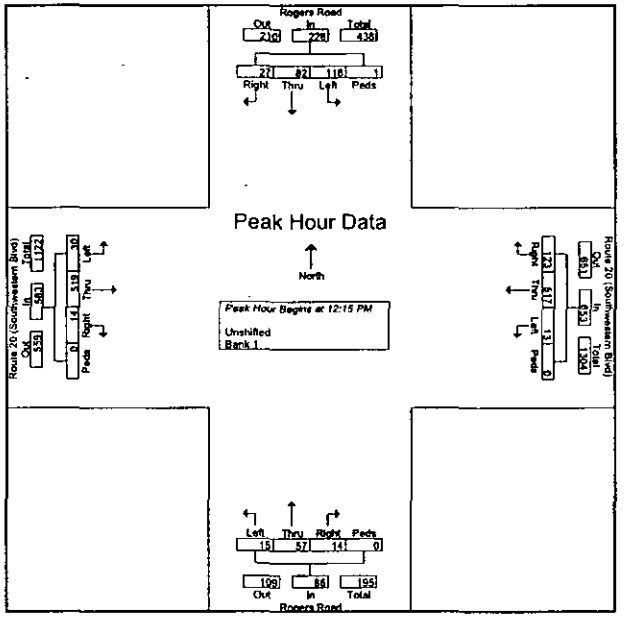
Groups Printed- Unshifted - Bank 1

	Rogers Road Southbound				Route 20 (Southwestern Blvd) Westbound				Rogers Road Northbound				Route 20 (Southwestern Blvd) Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
11:30 AM	4	22	31	0	20	124	2	0	2	17	3	0	7	138	3	0	373
11:45 AM	5	19	22	0	18	100	7	0	4	19	2	0	1	130	7	0	334
Total	9	41	53	0	38	224	9	0	6	36	5	0	8	268	10	0	707
12:00 PM	7	14	17	0	28	142	2	0	4	18	1	0	2	115	7	0	352
12:15 PM	8	15	28	0	39	123	2	0	1	14	3	0	4	131	7	0	375
12:30 PM	8	19	34	1	25	134	5	0	9	11	4	0	7	116	16	0	389
12:45 PM	7	25	21	0	31	130	1	0	2	16	2	0	1	138	3	0	377
Total	30	73	100	1	123	529	10	0	16	59	10	0	14	500	28	0	1493
01:00 PM	4	23	35	0	28	130	5	0	2	16	6	0	2	134	4	0	389
01:15 PM	4	6	30	0	22	134	1	0	3	12	1	0	3	129	3	0	348
Grand Total	47	143	218	1	211	1017	25	0	27	123	22	0	27	1031	45	0	2937
Apprch %	11.5	35	53.3	0.2	16.8	81.2	2	0	15.7	71.5	12.8	0	2.4	93.5	4.1	0	
Total %	1.6	4.9	7.4	0	7.2	34.6	0.9	0	0.9	4.2	0.7	0	0.9	35.1	1.5	0	
Unshifted	47	143	218	1	211	1017	25	0	27	123	22	0	27	1031	45	0	2937
% Unshifted	100	100	100	100	100	100	100	0	100	100	100	0	100	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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File Name : Route20.Rogers.SAT
Site Code : 22222222
Start Date : 1/13/2007
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	Rogers Road Southbound					Route 20 (Southwestern Blvd) Westbound					Rogers Road Northbound					Route 20 (Southwestern Blvd) Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:15 PM																					
12:15 PM	8	15	28	0	51	39	123	2	0	164	1	14	3	0	18	4	131	7	0	142	375
12:30 PM	8	19	34	1	62	25	134	5	0	164	9	11	4	0	24	7	116	16	0	139	389
12:45 PM	7	25	21	0	53	31	130	1	0	162	2	16	2	0	20	1	138	3	0	142	377
01:00 PM	4	23	35	0	62	28	130	5	0	163	2	16	6	0	24	2	134	4	0	140	389
Total Volume	27	82	118	1	228	123	517	13	0	653	14	57	15	0	86	14	519	30	0	563	1530
% App. Total	11.8	36	51.8	0.4		18.8	79.2	2	0		16.3	66.3	17.4	0		2.5	92.2	5.3	0		
PHF	.844	.820	.843	.250	.919	.788	.965	.650	.000	.995	.389	.891	.625	.000	.896	.500	.940	.469	.000	.991	.983



3495 Winton Place
Building E, Suite 110
Rochester, New York 14623

File Name : Route20.Sowles.PM
Site Code : 00000000
Start Date : 1/5/2007
Page No : 1

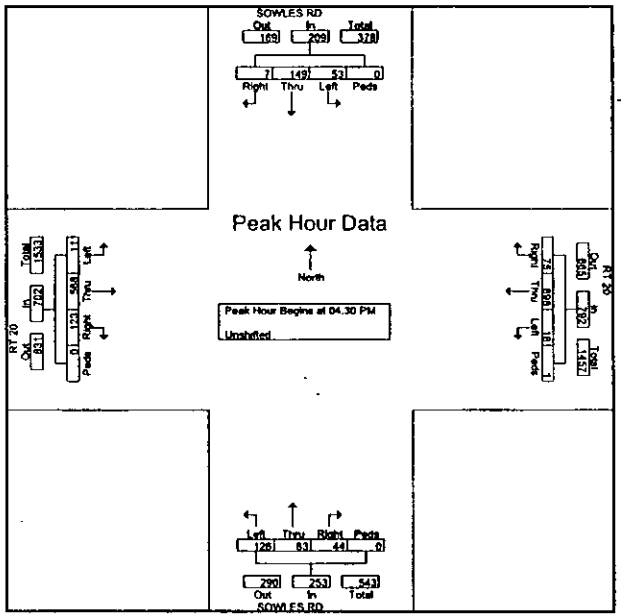
Groups Printed- Unshifted

	SOWLES RD Southbound				RT 20 Westbound				SOWLES RD Northbound				RT 20 Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	33	21	0	7	156	10	0	11	18	38	0	31	179	1	0	505
04:15 PM	2	28	7	0	9	149	4	0	7	21	27	0	25	125	5	0	409
04:30 PM	2	25	17	0	15	177	6	1	8	26	35	0	27	157	4	0	500
04:45 PM	0	38	10	0	10	176	4	0	17	23	34	0	30	129	3	0	474
Total	4	124	55	0	41	658	24	1	43	88	134	0	113	590	13	0	1888
05:00 PM	3	50	13	0	12	192	5	0	13	16	23	0	27	150	1	0	505
05:15 PM	2	36	13	0	38	153	3	0	6	18	34	0	39	132	3	0	477
05:30 PM	0	42	10	0	11	123	7	0	4	24	26	0	29	138	1	0	415
05:45 PM	2	24	12	0	9	138	2	0	8	16	23	0	31	145	1	0	411
Total	7	152	48	0	70	606	17	0	31	74	106	0	126	565	6	0	1808
Grand Total	11	276	103	0	111	1264	41	1	74	162	240	0	239	1155	19	0	3696
Apprch %	2.8	70.8	26.4	0	7.8	89.2	2.9	0.1	15.5	34	50.4	0	16.9	81.7	1.3	0	
Total %	0.3	7.5	2.8	0	3	34.2	1.1	0	2	4.4	6.5	0	6.5	31.2	0.5	0	

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File Name : Route20.Sowles.PM
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	SOWLES RD Southbound					RT 20 Westbound					SOWLES RD Northbound					RT 20 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	2	25	17	0	44	15	177	6	1	199	8	26	35	0	69	27	157	4	0	188	500
04:45 PM	0	38	10	0	48	10	176	4	0	190	17	23	34	0	74	30	129	3	0	162	474
05:00 PM	3	50	13	0	66	12	192	5	0	209	13	16	23	0	52	27	150	1	0	178	505
05:15 PM	2	36	13	0	51	38	153	3	0	194	6	18	34	0	58	39	132	3	0	174	477
Total Volume	7	149	53	0	209	75	698	18	1	792	44	83	126	0	253	123	568	11	0	702	1956
% App. Total	3.3	71.3	25.4	0		9.5	88.1	2.3	0.1		17.4	32.8	49.8	0		17.5	80.9	1.6	0		
PHF	.583	.745	.779	.000	.792	.493	.909	.750	.250	.947	.647	.798	.900	.000	.855	.788	.904	.688	.000	.934	.968



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File Name : Route20.Sowles.SAT
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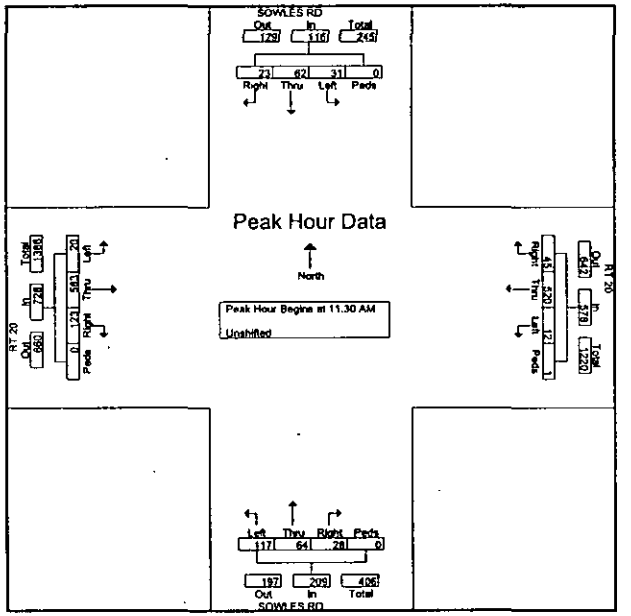
Groups Printed- Unshifted

	SOWLES RD Southbound				RT 20 Westbound				SOWLES RD Northbound				RT 20 Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
11:30 AM	5	16	11	0	13	125	4	0	5	24	29	0	32	134	5	0	403
11:45 AM	4	16	8	0	10	133	2	0	10	18	34	0	27	156	5	0	423
Total	9	32	19	0	23	258	6	0	15	42	63	0	59	290	10	0	826
12:00 PM	6	15	6	0	9	123	2	0	9	11	35	0	32	158	4	0	410
12:15 PM	8	15	6	0	13	139	4	1	4	11	19	0	32	135	6	0	393
12:30 PM	6	18	8	0	17	119	6	0	5	8	35	0	22	136	3	0	383
12:45 PM	6	13	4	0	12	137	4	0	4	16	23	0	36	156	4	0	415
Total	26	61	24	0	51	518	16	1	22	46	112	0	122	585	17	0	1601
01:00 PM	5	18	13	0	18	132	6	0	3	22	24	0	32	136	1	0	410
01:15 PM	2	13	8	0	11	132	3	3	4	16	24	0	34	144	5	0	399
Grand Total	42	124	64	0	103	1040	31	4	44	126	223	0	247	1155	33	0	3236
Apprch %	18.3	53.9	27.8	0	8.7	88.3	2.6	0.3	11.2	32.1	56.7	0	17.2	80.5	2.3	0	
Total %	1.3	3.8	2	0	3.2	32.1	1	0.1	1.4	3.9	6.9	0	7.6	35.7	1	0	

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	SOWLES RD Southbound					RT 20 Westbound					SOWLES RD Northbound					RT 20 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:30 AM																					
11:30 AM	5	16	11	0	32	13	125	4	0	142	5	24	29	0	58	32	134	5	0	171	403
11:45 AM	4	16	8	0	28	10	133	2	0	145	10	18	34	0	62	27	156	5	0	188	423
12:00 PM	6	15	6	0	27	9	123	2	0	134	9	11	35	0	55	32	158	4	0	194	410
12:15 PM	8	15	6	0	29	13	139	4	1	157	4	11	19	0	34	32	135	6	0	173	393
Total Volume	23	62	31	0	116	45	520	12	1	578	28	64	117	0	209	123	583	20	0	726	1629
% App. Total	19.8	53.4	26.7	0		7.8	90	2.1	0.2		13.4	30.6	56	0		16.9	80.3	2.8	0		
PHF	.719	.969	.705	.000	.906	.865	.935	.750	.250	.920	.700	.667	.836	.000	.843	.961	.922	.833	.000	.936	.963



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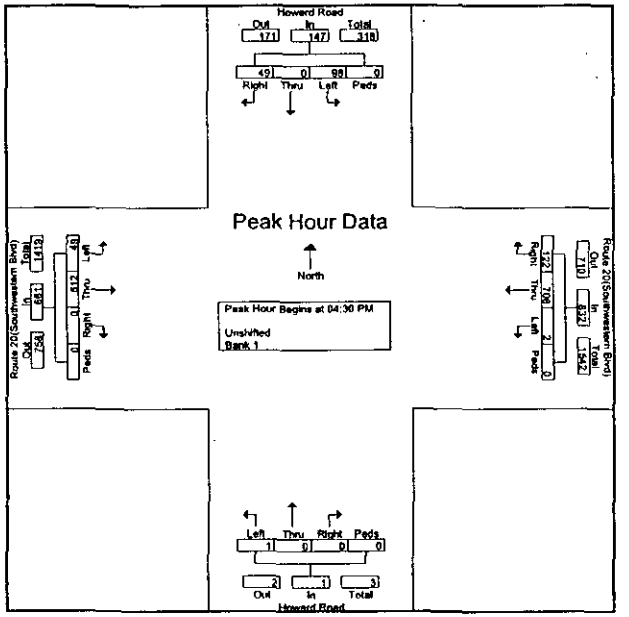
Groups Printed- Unshifted - Bank 1

	Howard Road Southbound				Route 20(Southwestern Blvd) Westbound				Howard Road Northbound				Route 20(Southwestern Blvd) Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	13	0	25	0	29	172	0	0	0	0	0	0	0	154	13	0	406
04:15 PM	16	0	32	0	28	152	0	0	0	0	0	0	0	134	11	0	373
04:30 PM	13	0	22	0	28	151	1	0	0	0	1	0	0	160	14	0	390
04:45 PM	9	0	22	0	34	187	0	0	0	0	0	0	0	154	7	0	413
Total	51	0	101	0	119	662	1	0	0	0	1	0	0	602	45	0	1582
05:00 PM	12	0	30	0	24	176	0	0	0	0	0	0	0	161	16	0	419
05:15 PM	15	0	24	0	36	194	1	0	0	0	0	0	0	137	12	0	419
05:30 PM	11	0	27	0	42	177	0	0	0	0	1	0	0	119	11	0	388
05:45 PM	12	0	35	0	29	148	0	0	0	0	0	0	0	144	11	0	379
Total	50	0	116	0	131	695	1	0	0	0	1	0	0	561	50	0	1605
Grand Total	101	0	217	0	250	1357	2	0	0	0	2	0	0	1163	95	0	3187
Apprch %	31.8	0	68.2	0	15.5	84.3	0.1	0	0	0	100	0	0	92.4	7.6	0	
Total %	3.2	0	6.8	0	7.8	42.6	0.1	0	0	0	0.1	0	0	36.5	3	0	
Unshifted	101	0	217	0	250	1357	2	0	0	0	2	0	0	1163	95	0	3187
% Unshifted	100	0	100	0	100	100	100	0	0	0	100	0	0	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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File Name : Rt20.Howard.PM
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	Howard Road Southbound					Route 20(Southwestern Blvd) Westbound					Howard Road Northbound					Route 20(Southwestern Blvd) Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	13	0	22	0	35	28	151	1	0	180	0	0	1	0	1	0	160	14	0	174	390
04:45 PM	9	0	22	0	31	34	187	0	0	221	0	0	0	0	0	0	154	7	0	161	413
05:00 PM	12	0	30	0	42	24	176	0	0	200	0	0	0	0	0	0	161	16	0	177	419
05:15 PM	15	0	24	0	39	36	194	1	0	231	0	0	0	0	0	0	137	12	0	149	419
Total Volume	49	0	98	0	147	122	708	2	0	832	0	0	1	0	1	0	612	49	0	661	1641
% App. Total	33.3	0	66.7	0		14.7	85.1	0.2	0		0	0	100	0		0	92.6	7.4	0		
PHF	.817	.000	.817	.000	.875	.847	.912	.500	.000	.900	.000	.000	.250	.000	.250	.000	.950	.766	.000	.934	.979



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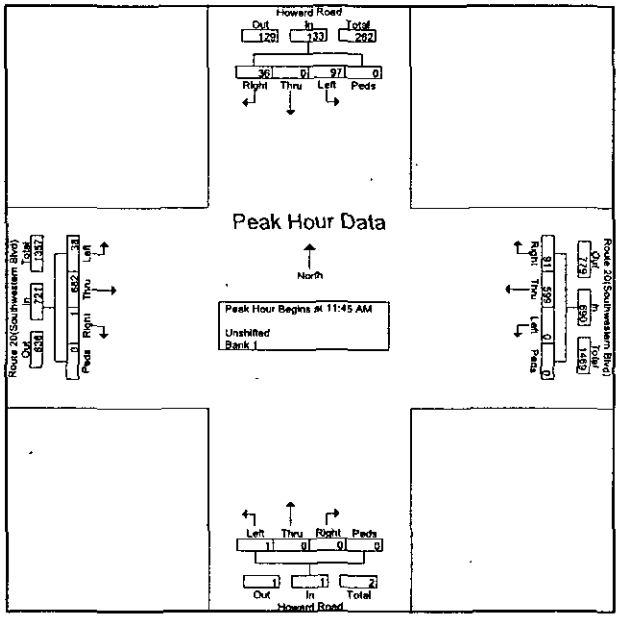
Groups Printed- Unshifted - Bank 1

	Howard Road Southbound				Route 20(Southwestern Blvd) Westbound				Howard Road Northbound				Route 20(Southwestern Blvd) Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
11:30 AM	8	0	19	0	22	125	0	0	0	0	0	0	0	165	6	0	345
11:45 AM	9	0	32	0	19	142	0	0	0	0	1	0	1	194	8	0	406
Total	17	0	51	0	41	267	0	0	0	0	1	0	1	359	14	0	751
12:00 PM	11	0	19	0	17	142	0	0	0	0	0	0	0	147	6	0	342
12:15 PM	6	0	30	0	30	152	0	0	0	0	0	0	0	167	12	0	397
12:30 PM	10	0	16	0	25	163	0	0	0	0	0	0	0	174	12	0	400
12:45 PM	8	0	19	0	20	166	0	0	0	0	0	0	0	151	11	0	375
Total	35	0	84	0	92	623	0	0	0	0	0	0	0	639	41	0	1514
01:00 PM	12	0	17	0	17	121	0	0	0	0	0	0	0	160	9	0	336
01:15 PM	8	0	18	0	30	160	0	0	0	0	0	0	1	170	11	0	398
Grand Total	72	0	170	0	180	1171	0	0	0	0	1	0	2	1328	75	0	2999
Apprch %	29.8	0	70.2	0	13.3	86.7	0	0	0	0	100	0	0.1	94.5	5.3	0	
Total %	2.4	0	5.7	0	6	39	0	0	0	0	0	0	0.1	44.3	2.5	0	
Unshifted	72	0	170	0	180	1171	0	0	0	0	1	0	2	1328	75	0	2999
% Unshifted	100	0	100	0	100	100	0	0	0	0	100	0	100	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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File Name : Rt20.Howard.SAT
Site Code : 44444444
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	Howard Road Southbound					Route 20(Southwestern Blvd) Westbound					Howard Road Northbound					Route 20(Southwestern Blvd) Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	9	0	32	0	41	19	142	0	0	161	0	0	1	0	1	1	194	8	0	203	406
12:00 PM	11	0	19	0	30	17	142	0	0	159	0	0	0	0	0	0	147	6	0	153	342
12:15 PM	6	0	30	0	36	30	152	0	0	182	0	0	0	0	0	0	167	12	0	179	397
12:30 PM	10	0	16	0	26	25	163	0	0	188	0	0	0	0	0	0	174	12	0	186	400
Total Volume	36	0	97	0	133	91	599	0	0	690	0	0	1	0	1	1	682	38	0	721	1545
% App. Total	27.1	0	72.9	0		13.2	86.8	0	0		0	0	100	0		0.1	94.6	5.3	0		
PHF	.818	.000	.758	.000	.811	.758	.919	.000	.000	.918	.000	.000	.250	.000	.250	.250	.879	.792	.000	.888	.951



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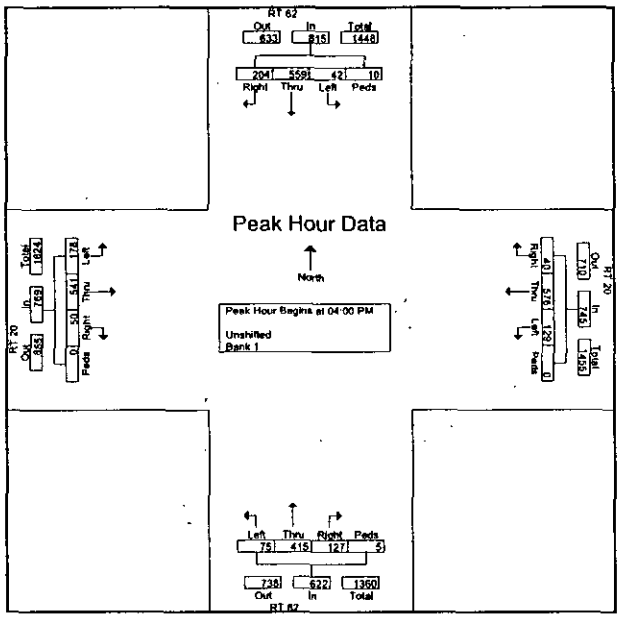
Groups Printed- Unshifted - Bank 1

	RT 62 Southbound				RT 20 Westbound				RT 62 Northbound				RT 20 Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	45	162	18	0	14	127	29	0	34	126	18	0	10	140	43	0	766
04:15 PM	45	127	11	0	8	144	25	0	29	101	17	5	9	121	42	0	684
04:30 PM	52	129	7	0	10	158	32	0	30	108	16	0	17	139	51	0	749
04:45 PM	62	141	6	10	8	147	43	0	34	80	24	0	14	141	42	0	752
Total	204	559	42	10	40	576	129	0	127	415	75	5	50	541	178	0	2951
05:00 PM	44	139	9	0	13	151	29	0	28	111	8	0	13	129	41	0	715
05:15 PM	46	154	6	0	3	153	47	0	28	114	16	0	18	107	38	1	731
05:30 PM	59	151	8	0	8	155	35	0	32	104	14	0	8	117	35	0	726
05:45 PM	49	105	9	0	9	138	27	0	38	117	12	0	19	110	56	0	689
Total	198	549	32	0	33	597	138	0	126	446	50	0	58	463	170	1	2861
Grand Total	402	1108	74	10	73	1173	267	0	253	861	125	5	108	1004	348	1	5812
Apprch %	25.2	69.5	4.6	0.6	4.8	77.5	17.6	0	20.3	69.2	10	0.4	7.4	68.7	23.8	0.1	
Total %	6.9	19.1	1.3	0.2	1.3	20.2	4.6	0	4.4	14.8	2.2	0.1	1.9	17.3	6	0	
Unshifted	402	1108	74	10	73	1173	267	0	253	861	125	5	108	1004	348	1	5812
% Unshifted	100	100	100	100	100	100	100	0	100	100	100	100	100	100	100	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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File Name : RT20.RT62.PM
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	RT 62 Southbound					RT 20 Westbound					RT 62 Northbound					RT 20 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	45	162	18	0	225	14	127	29	0	170	34	126	18	0	178	10	140	43	0	193	766
04:15 PM	45	127	11	0	183	8	144	25	0	177	29	101	17	5	152	9	121	42	0	172	684
04:30 PM	52	129	7	0	188	10	158	32	0	200	30	108	16	0	154	17	139	51	0	207	749
04:45 PM	62	141	6	10	219	8	147	43	0	198	34	80	24	0	138	14	141	42	0	197	752
Total Volume	204	559	42	10	815	40	576	129	0	745	127	415	75	5	622	50	541	178	0	769	2951
% App. Total	25	68.6	5.2	1.2		5.4	77.3	17.3	0		20.4	66.7	12.1	0.8		6.5	70.4	23.1	0		
PHF	.823	.863	.583	.250	.906	.714	.911	.750	.000	.931	.934	.823	.781	.250	.874	.735	.959	.873	.000	.929	.963



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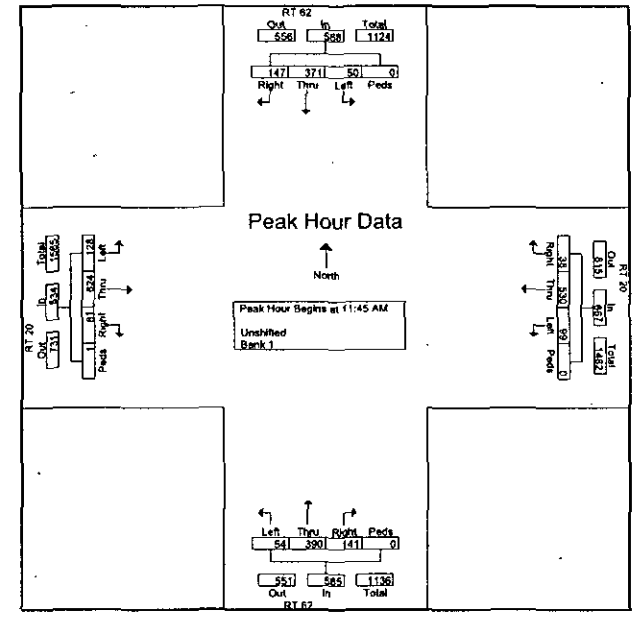
Groups Printed- Unshifted - Bank 1

	RT 62 Southbound				RT 20 Westbound				RT 62 Northbound				RT 20 Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
11:30 AM	42	90	4	0	4	135	28	0	38	110	12	0	21	137	38	0	639
11:45 AM	31	105	12	0	8	125	19	0	33	87	15	0	12	185	40	0	672
Total	73	195	16	0	12	240	47	0	71	197	27	0	33	322	78	0	1311
12:00 PM	38	92	10	0	15	128	35	0	32	103	9	0	33	146	17	1	659
12:15 PM	40	98	15	0	5	132	31	0	42	81	17	0	18	140	36	0	655
12:30 PM	38	76	13	0	10	145	14	0	34	119	13	0	18	153	35	0	668
12:45 PM	39	91	12	0	9	146	24	0	49	89	12	0	14	120	32	0	637
Total	155	357	50	0	39	551	104	0	157	392	51	0	83	559	120	1	2619
01:00 PM	28	59	6	0	2	126	40	0	48	85	9	0	18	167	37	0	625
01:15 PM	33	94	7	0	9	158	24	0	48	88	10	0	15	138	46	0	670
Grand Total	289	705	79	0	62	1075	215	0	324	762	97	0	149	1186	281	1	5225
Apprch %	26.9	65.7	7.4	0	4.6	79.5	15.9	0	27.4	64.4	8.2	0	9.2	73.3	17.4	0.1	
Total %	5.5	13.5	1.5	0	1.2	20.6	4.1	0	6.2	14.6	1.9	0	2.9	22.7	5.4	0	
Unshifted	289	705	79	0	62	1075	215	0	324	762	97	0	149	1186	281	1	5225
% Unshifted	100	100	100	0	100	100	100	0	100	100	100	0	100	100	100	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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File Name : RT20.RT62.SAT
Site Code : 00000000
Start Date : 1/13/2007
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	RT 62 Southbound					RT 20 Westbound					RT 62 Northbound					RT 20 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	31	105	12	0	148	8	125	19	0	152	33	87	15	0	135	12	185	40	0	237	672
12:00 PM	38	92	10	0	140	15	128	35	0	178	32	103	9	0	144	33	146	17	1	197	659
12:15 PM	40	98	15	0	153	5	132	31	0	168	42	81	17	0	140	18	140	36	0	194	655
12:30 PM	38	76	13	0	127	10	145	14	0	169	34	119	13	0	166	18	153	35	0	206	668
Total Volume	147	371	50	0	568	38	530	99	0	667	141	390	54	0	585	81	624	128	1	834	2654
% App. Total	25.9	65.3	8.8	0		5.7	79.5	14.8	0		24.1	66.7	9.2	0		9.7	74.8	15.3	0.1		
PHF	.919	.883	.833	.000	.928	.633	.914	.707	.000	.937	.839	.819	.794	.000	.881	.614	.843	.800	.250	.880	.987



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File Name : Route75.Elmview.PM
Site Code : 26077154
Start Date : 9/7/2007
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Groups Printed- Unshifted

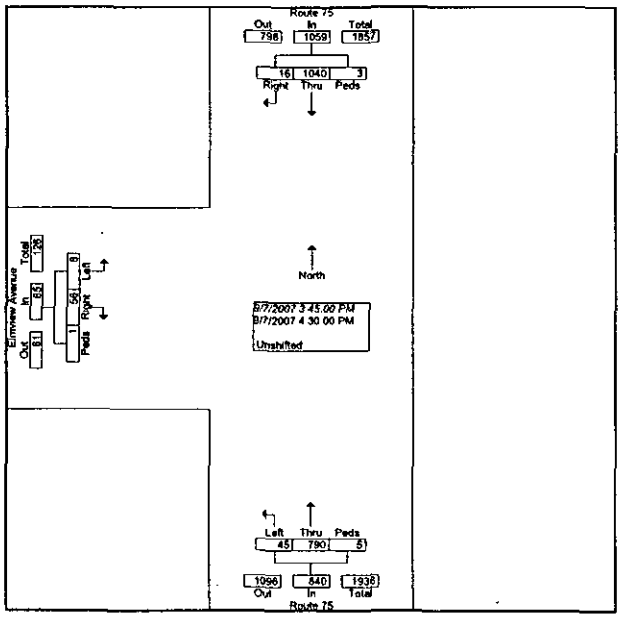
	Route 75 Southbound				Westbound				Route 75 Northbound				Elmview Avenue Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:45 PM	4	287	0	0	0	0	0	0	0	188	9	0	16	0	3	0	507
Total	4	287	0	0	0	0	0	0	0	188	9	0	16	0	3	0	507
04:00 PM	4	217	0	2	0	0	0	0	0	232	15	1	10	0	3	0	484
04:15 PM	5	246	0	1	0	0	0	0	0	179	11	3	15	0	1	0	461
04:30 PM	3	290	0	0	0	0	0	0	0	191	10	1	15	0	1	1	512
04:45 PM	7	276	0	2	0	0	0	0	0	184	11	0	9	0	0	1	490
Total	19	1029	0	5	0	0	0	0	0	786	47	5	49	0	5	2	1947
05:00 PM	2	281	0	0	0	0	0	0	0	188	10	0	18	0	4	0	483
05:15 PM	4	265	0	0	0	0	0	0	0	175	9	1	9	0	2	0	465
05:30 PM	5	243	0	2	0	0	0	0	0	194	11	0	12	0	4	0	471
Grand Total	34	2085	0	7	0	0	0	0	0	1531	86	6	104	0	18	2	3873
Apprch %	1.6	98.1	0.0	0.3	0.0	0.0	0.0	0.0	0.0	94.3	5.3	0.4	83.9	0.0	14.5	1.6	
Total %	0.9	53.8	0.0	0.2	0.0	0.0	0.0	0.0	0.0	39.5	2.2	0.2	2.7	0.0	0.5	0.1	

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File Name : Route75.Elmview.PM
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	Route 75 Southbound					Westbound					Route 75 Northbound					Elmview Avenue Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 03:45 PM to 05:30 PM - Peak 1 of 1																					
Intersection	03:45 PM																				
Volume	16	1040	0	3	1059	0	0	0	0	0	0	790	45	5	840	56	0	8	1	65	1964
Percent	1.5	98.2	0.0	0.3		0.0	0.0	0.0	0.0		0.0	94.0	5.4	0.6		86.2	0.0	12.3	1.5		
04:30 Volume	3	290	0	0	293	0	0	0	0	0	0	191	10	1	202	15	0	1	1	17	512
Peak Factor																					0.959
High Int.	04:30 PM					3:30:00 PM					04:00 PM					03:45 PM					
Volume	3	290	0	0	293	0	0	0	0	0	0	232	15	1	248	16	0	3	0	19	
Peak Factor					0.90 4										0.84 7					0.85 5	



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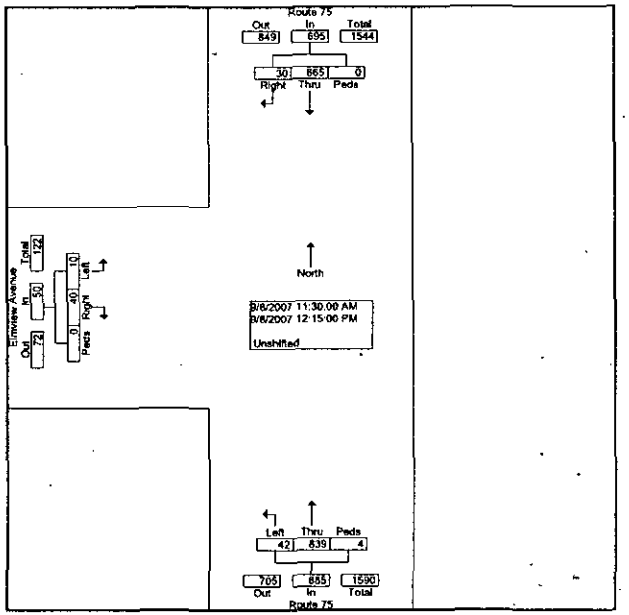
Groups Printed- Unshifted

Start Time	Route 75 Southbound				Westbound				Route 75 Northbound				Elmview Avenue Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
11:30 AM	9	167	0	0	0	0	0	0	0	205	18	1	9	0	4	0	413
11:45 AM	7	178	0	0	0	0	0	0	0	215	12	1	19	0	4	0	436
Total	16	345	0	0	0	0	0	0	0	420	30	2	28	0	8	0	849
12:00 PM	12	160	0	0	0	0	0	0	0	224	6	0	8	0	0	0	410
12:15 PM	2	160	0	0	0	0	0	0	0	195	6	2	4	0	2	0	371
12:30 PM	4	173	0	0	0	0	0	0	0	174	11	1	4	0	0	0	367
12:45 PM	6	171	0	1	0	0	0	0	0	166	12	0	9	0	3	1	369
Total	24	664	0	1	0	0	0	0	0	759	35	3	25	0	5	1	1517
01:00 PM	4	156	0	0	0	0	0	0	0	157	6	0	10	0	4	0	337
01:15 PM	5	161	0	2	0	0	0	0	0	171	8	0	5	0	4	0	356
Grand Total	49	1326	0	3	0	0	0	0	0	1507	79	5	68	0	21	1	3059
Apprch %	3.6	96.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	94.7	5.0	0.3	75.6	0.0	23.3	1.1	
Total %	1.6	43.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	49.3	2.6	0.2	2.2	0.0	0.7	0.0	

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Start Time	Route 75 Southbound					Westbound					Route 75 Northbound					Elmview Avenue Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Intersection	11:30 AM																				
Volume	30	665	0	0	695	0	0	0	0	0	0	839	42	4	885	40	0	10	0	50	1630
Percent	4.3	95.7	0.0	0.0		0.0	0.0	0.0	0.0		0.0	94.8	4.7	0.5		80.0	0.0	20.0	0.0		
11:45 Volume	7	178	0	0	185	0	0	0	0	0	0	215	12	1	228	19	0	4	0	23	436
Peak Factor																					0.935
High Int.	11:45 AM					11:15:00 AM					12:00 PM					11:45 AM					
Volume	7	178	0	0	185	0	0	0	0	0	0	224	6	0	230	19	0	4	0	23	
Peak Factor					0.93										0.96					0.54	
					9										2					3	



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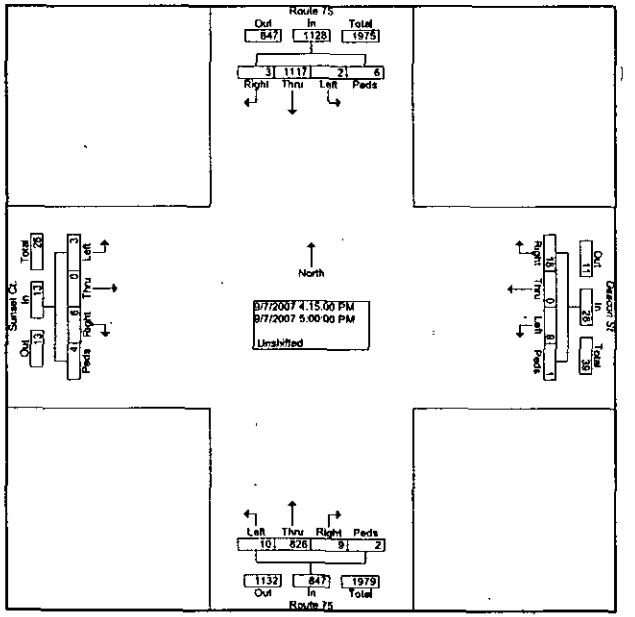
Groups Printed- Unshifted

	Route 75 Southbound				Deacon St. Westbound				Route 75 Northbound				Sunset Ct. Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:45 PM	0	282	0	1	1	0	5	0	0	204	3	0	3	0	1	0	500
Total	0	282	0	1	1	0	5	0	0	204	3	0	3	0	1	0	500
04:00 PM	1	258	1	0	3	0	0	0	0	231	3	0	3	0	1	0	501
04:15 PM	0	262	0	1	6	0	3	0	0	207	1	2	4	0	0	1	487
04:30 PM	0	283	0	3	3	0	1	1	3	210	2	0	0	0	0	3	509
04:45 PM	3	292	1	0	4	0	2	0	2	202	4	0	2	0	2	0	514
Total	4	1095	2	4	16	0	6	1	5	850	10	2	9	0	3	4	2011
05:00 PM	0	280	1	2	5	0	3	0	4	207	3	0	0	0	1	0	506
05:15 PM	1	274	2	1	6	0	3	0	1	193	1	1	3	0	0	0	486
05:30 PM	1	254	1	0	4	1	4	0	2	215	4	0	3	0	1	0	490
Grand Total	6	2185	6	8	32	1	21	1	12	1669	21	3	18	0	6	4	3993
Apprch %	0.3	99.1	0.3	0.4	58.2	1.8	38.2	1.8	0.7	97.9	1.2	0.2	64.3	0.0	21.4	14.3	
Total %	0.2	54.7	0.2	0.2	0.8	0.0	0.5	0.0	0.3	41.8	0.5	0.1	0.5	0.0	0.2	0.1	

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	Route 75 Southbound					Deacon St. Westbound					Route 75 Northbound					Sunset Ct. Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 03:45 PM to 05:30 PM - Peak 1 of 1																					
Intersection	04:15 PM																				
Volume	3	1117	2	6	1128	18	0	9	1	28	9	826	10	2	847	6	0	3	4	13	2016
Percent	0.3	99.0	0.2	0.5		64.3	0.0	32.1	3.6		1.1	97.5	1.2	0.2		46.2	0.0	23.1	30.8		
04:45 Volume	3	292	1	0	296	4	0	2	0	6	2	202	4	0	208	2	0	2	0	4	514
Peak Factor																					0.981
High Int.	04:45 PM					04:15 PM					04:30 PM					04:15 PM					
Volume	3	292	1	0	296	6	0	3	0	9	3	210	2	0	215	4	0	0	1	5	
Peak Factor					0.95					0.77					0.98					0.65	
					3					8					5					0	



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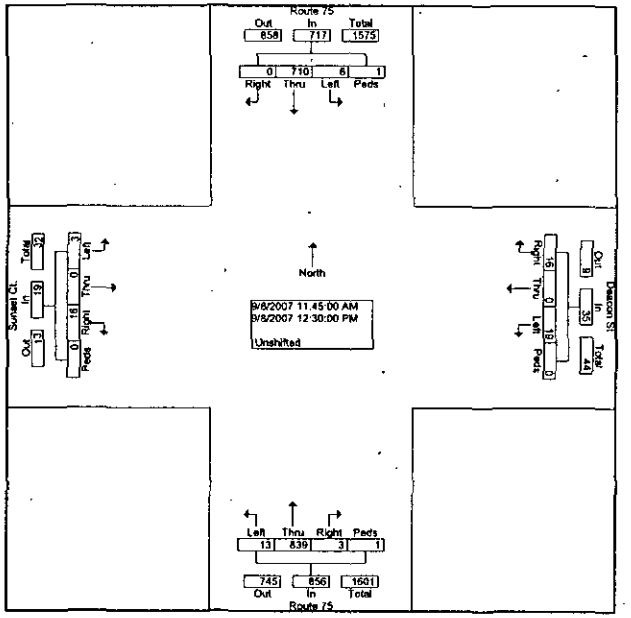
Groups Printed- Unshifted

	Route 75 Southbound				Deacon St. Westbound				Route 75 Northbound				Sunset Ct. Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
11:30 AM	0	177	1	0	0	0	6	0	2	201	3	1	4	0	2	0	397
11:45 AM	0	203	2	0	7	0	5	0	1	211	2	1	2	0	1	0	435
Total	0	380	3	0	7	0	11	0	3	412	5	2	6	0	3	0	832
12:00 PM	0	161	0	0	4	0	0	0	1	244	5	0	6	0	1	0	422
12:15 PM	0	155	2	1	3	0	8	0	1	195	2	0	2	0	1	0	370
12:30 PM	0	191	2	0	2	0	6	0	0	189	4	0	6	0	0	0	400
12:45 PM	0	169	1	1	2	0	8	0	2	181	3	2	4	0	0	0	373
Total	0	676	5	2	11	0	22	0	4	809	14	2	18	0	2	0	1565
01:00 PM	0	145	0	0	7	0	3	0	4	155	3	0	8	0	2	0	327
01:15 PM	1	176	0	2	2	0	6	0	0	156	4	0	0	0	2	0	349
Grand Total	1	1377	8	4	27	0	42	0	11	1532	26	4	32	0	9	0	3073
Apprch %	0.1	99.1	0.6	0.3	39.1	0.0	60.9	0.0	0.7	97.4	1.7	0.3	78.0	0.0	22.0	0.0	
Total %	0.0	44.8	0.3	0.1	0.9	0.0	1.4	0.0	0.4	49.9	0.8	0.1	1.0	0.0	0.3	0.0	

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	Route 75 Southbound					Deacon St. Westbound					Route 75 Northbound					Sunset Ct. Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Intersection	11:45 AM																				
Volume	0	710	6	1	717	16	0	19	0	35	3	839	13	1	856	16	0	3	0	19	1627
Percent	0.0	99.0	0.8	0.1		45.7	0.0	54.3	0.0		0.4	98.0	1.5	0.1		84.2	0.0	15.8	0.0		
11:45 Volume	0	203	2	0	205	7	0	5	0	12	1	211	2	1	215	2	0	1	0	3	435
Peak Factor																					0.935
High Int.	11:45 AM					11:45 AM					12:00 PM					12:00 PM					
Volume	0	203	2	0	205	7	0	5	0	12	1	244	5	0	250	6	0	1	0	7	
Peak Factor					0.87					0.72					0.85					0.67	
					4					9					6					9	



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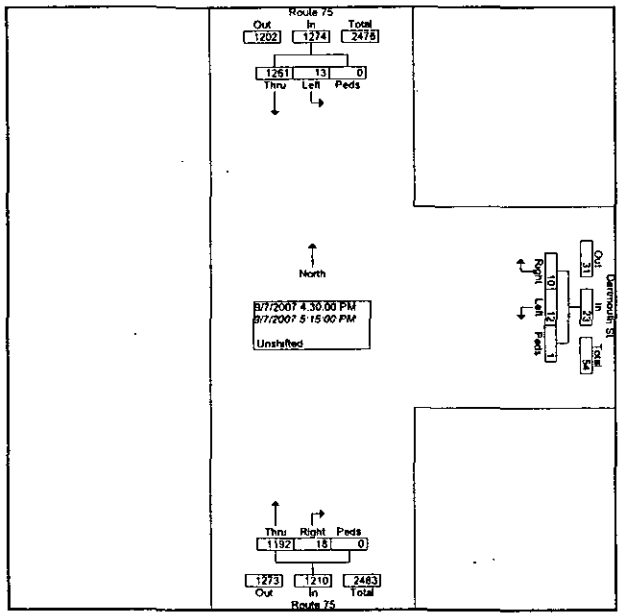
Groups Printed- Unshifted

	Route 75 Southbound				Dartmouth St. Westbound				Route 75 Northbound				Dartmouth St. Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:45 PM	0	301	1	0	1	0	5	0	12	264	0	0	0	0	0	0	584
Total	0	301	1	0	1	0	5	0	12	264	0	0	0	0	0	0	584
04:00 PM	0	240	1	1	3	0	5	0	11	265	0	1	0	0	0	0	527
04:15 PM	0	280	4	0	4	0	0	0	4	285	0	0	0	0	0	0	577
04:30 PM	0	347	3	0	3	0	2	1	8	286	0	0	0	0	0	0	650
04:45 PM	0	282	4	0	2	0	5	0	5	289	0	0	0	0	0	0	587
Total	0	1149	12	1	12	0	12	1	28	1125	0	1	0	0	0	0	2341
05:00 PM	0	322	2	0	5	0	4	0	1	312	0	0	0	0	0	0	646
05:15 PM	0	310	4	0	0	0	1	0	4	305	0	0	0	0	0	0	624
05:30 PM	0	283	3	0	4	0	4	0	4	290	0	2	0	0	0	0	590
Grand Total	0	2365	22	1	22	0	26	1	49	2296	0	3	0	0	0	0	4785
Apprch %	0.0	99.0	0.9	0.0	44.9	0.0	53.1	2.0	2.1	97.8	0.0	0.1	0.0	0.0	0.0	0.0	
Total %	0.0	49.4	0.5	0.0	0.5	0.0	0.5	0.0	1.0	48.0	0.0	0.1	0.0	0.0	0.0	0.0	

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	Route 75 Southbound					Dartmouth St. Westbound					Route 75 Northbound					Dartmouth St. Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 03:45 PM to 05:30 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	0	1281	13	0	1274	10	0	12	1	23	18	1192	0	0	1210	0	0	0	0	0	2507
Percent	0.0	99.0	1.0	0.0		43.5	0.0	52.2	4.3		1.5	98.5	0.0	0.0		0.0	0.0	0.0	0.0		
04:30 Volume	0	347	3	0	350	3	0	2	1	6	8	286	0	0	294	0	0	0	0	0	650
Peak Factor																					0.964
High Int.	04:30 PM					05:00 PM					05:00 PM					3:30:00 PM					
Volume	0	347	3	0	350	5	0	4	0	9	1	312	0	0	313						
Peak Factor					0.91					0.63					0.96						
					0					9					6						



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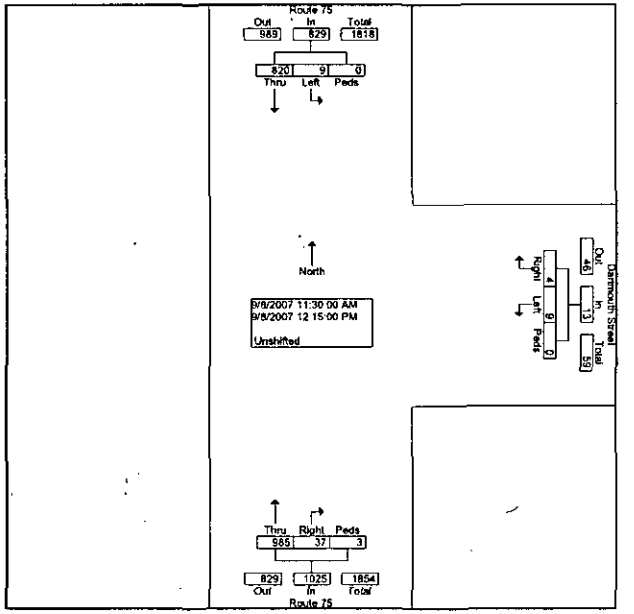
Groups Printed- Unshifted

Start Time	Route 75 Southbound Right	Thru	Left	Peds	Dartmouth Street Westbound Right	Thru	Left	Peds	Route 75 Northbound Right	Thru	Left	Peds	Eastbound Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
11:30 AM	0	218	3	0	0	0	2	0	16	229	0	2	0	0	0	0	470
11:45 AM	0	223	4	0	1	0	3	0	9	274	0	1	0	0	0	0	515
Total	0	441	7	0	1	0	5	0	25	503	0	3	0	0	0	0	985
12:00 PM	0	194	1	0	0	0	1	0	7	244	0	0	0	0	0	0	447
12:15 PM	0	185	1	0	3	0	3	0	5	238	0	0	0	0	0	0	435
12:30 PM	0	219	1	0	1	0	2	0	7	237	0	0	0	0	0	0	467
12:45 PM	0	185	4	0	2	0	5	0	10	201	0	0	0	0	0	0	407
Total	0	783	7	0	6	0	11	0	29	920	0	0	0	0	0	0	1756
01:00 PM	0	164	5	1	5	0	7	0	5	196	0	2	0	0	0	0	385
01:15 PM	0	193	5	0	4	0	1	0	9	202	1	1	0	0	0	0	416
Grand Total	0	1581	24	1	16	0	24	0	68	1821	1	6	0	0	0	0	3542
Apprch %	0.0	98.4	1.5	0.1	40.0	0.0	60.0	0.0	3.6	96.0	0.1	0.3	0.0	0.0	0.0	0.0	
Total %	0.0	44.6	0.7	0.0	0.5	0.0	0.7	0.0	1.9	51.4	0.0	0.2	0.0	0.0	0.0	0.0	

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Rochester, NY 14623

File Name : Route75.Dartmouth.SAT
Site Code : 02607722
Start Date : 9/8/2007
Page No : 2

Start Time	Route 75 Southbound Right	Thru	Left	Peds	App. Total	Dartmouth Street Westbound Right	Thru	Left	Peds	App. Total	Route 75 Northbound Right	Thru	Left	Peds	App. Total	Eastbound Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Intersection	11:30 AM																				
Volume	0	820	9	0	829	4	0	9	0	13	37	985	0	3	1025	0	0	0	0	0	1867
Percent	0.0	98.9	1.1	0.0		30.8	0.0	69.2	0.0		3.6	96.1	0.0	0.3		0.0	0.0	0.0	0.0		
11:45 Volume	0	223	4	0	227	1	0	3	0	4	9	274	0	1	284	0	0	0	0	0	515
Peak Factor																					0.906
High Int.	11:45 AM					12:15 PM					11:45 AM					11:15:00 AM					
Volume	0	223	4	0	227	3	0	3	0	6	9	274	0	1	284						
Peak Factor					0.91					0.54					0.90						
					3					2					2						



SRF & Associates
3495 Winton Place, E-110
Rochester, NY 14623

File Name : Route75.Columbia.PM
Site Code : 02607711
Start Date : 9/7/2007
Page No : 1

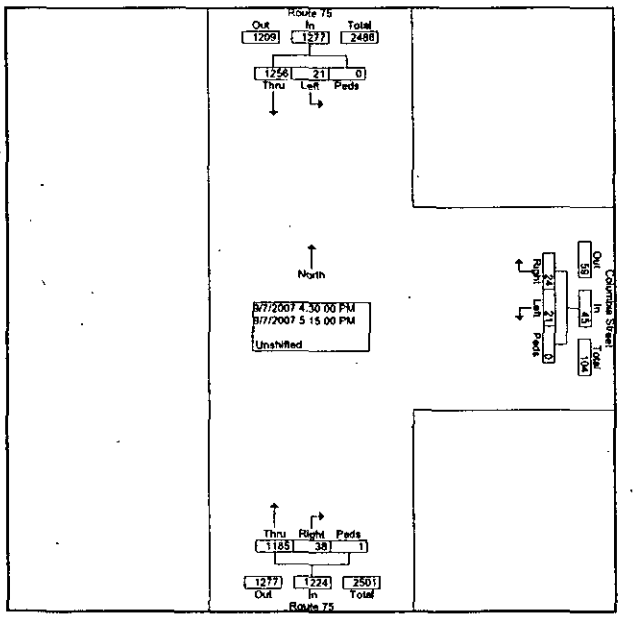
Groups Printed- Unshifted

	Route 75 Southbound				Columbia Street Westbound				Route 75 Northbound				Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:45 PM	0	298	4	0	1	0	3	0	4	254	0	0	0	0	0	0	564
Total	0	298	4	0	1	0	3	0	4	254	0	0	0	0	0	0	564
04:00 PM	0	242	4	1	7	0	7	0	5	262	0	1	0	0	0	0	529
04:15 PM	0	265	1	0	5	0	2	0	8	257	0	0	0	0	0	0	538
04:30 PM	0	348	7	0	6	0	3	0	8	284	0	1	0	0	0	0	657
04:45 PM	0	278	5	0	6	0	10	0	8	281	0	0	0	0	0	0	588
Total	0	1133	17	1	24	0	22	0	29	1084	0	2	0	0	0	0	2312
05:00 PM	0	322	6	0	4	0	4	0	10	314	0	0	0	0	0	0	660
05:15 PM	0	308	3	0	8	0	4	0	12	306	0	0	0	0	0	0	641
05:30 PM	0	289	11	0	8	0	2	0	10	287	0	2	0	0	0	0	609
Grand Total	0	2350	41	1	45	0	35	0	65	2245	0	4	0	0	0	0	4786
Apprch %	0.0	98.2	1.7	0.0	56.3	0.0	43.8	0.0	2.8	97.0	0.0	0.2	0.0	0.0	0.0	0.0	
Total %	0.0	49.1	0.9	0.0	0.9	0.0	0.7	0.0	1.4	46.9	0.0	0.1	0.0	0.0	0.0	0.0	

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Rochester, NY 14623

File Name : Route75.Columbia.PM
Site Code : 02607711
Start Date : 9/7/2007
Page No : 2

	Route 75 Southbound					Columbia Street Westbound					Route 75 Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 03:45 PM to 05:30 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	0	1256	21	0	1277	24	0	21	0	45	38	1185	0	1	1224	0	0	0	0	0	2546
Percent	0.0	98.4	1.6	0.0		53.3	0.0	46.7	0.0		3.1	96.8	0.0	0.1		0.0	0.0	0.0	0.0		
05:00 Volume	0	322	6	0	328	4	0	4	0	8	10	314	0	0	324	0	0	0	0	0	660
Peak Factor																					0.964
High Int.	04:30 PM					04:45 PM					05:00 PM					3:30:00 PM					
Volume	0	348	7	0	355	6	0	10	0	16	10	314	0	0	324						
Peak Factor					0.69					0.70					0.94						
					9					3					4						



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File Name : Route75.Columbia.SAT
Site Code : 02607712
Start Date : 9/8/2007
Page No : 1

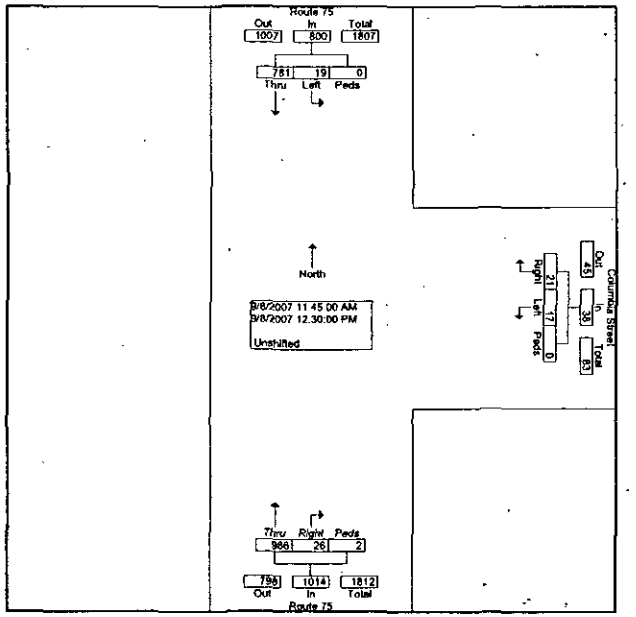
Groups Printed- Unshifted

	Route 75 Southbound				Columbia Street Westbound				Route 75 Northbound				Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
11:30 AM	0	219	4	0	6	0	3	0	11	216	0	2	0	0	0	0	461
11:45 AM	0	208	1	0	4	0	6	0	9	267	0	1	0	0	0	0	496
Total	0	427	5	0	10	0	9	0	20	483	0	3	0	0	0	0	957
12:00 PM	0	184	7	0	7	0	1	0	2	245	0	0	0	0	0	0	446
12:15 PM	0	175	7	0	5	0	5	0	10	234	0	1	0	0	0	0	437
12:30 PM	0	214	4	0	5	0	5	0	5	240	0	0	0	0	0	0	473
12:45 PM	0	182	7	0	7	0	10	0	17	192	0	0	0	0	0	0	415
Total	0	755	25	0	24	0	21	0	34	911	0	1	0	0	0	0	1771
01:00 PM	0	165	9	1	18	0	6	0	6	207	0	4	0	0	0	0	416
01:15 PM	1	195	8	0	8	0	9	0	11	186	0	1	0	0	0	0	419
Grand Total	1	1542	47	1	60	0	45	0	71	1787	0	9	0	0	0	0	3563
Apprch %	0.1	96.9	3.0	0.1	57.1	0.0	42.9	0.0	3.8	95.7	0.0	0.5	0.0	0.0	0.0	0.0	
Total %	0.0	43.3	1.3	0.0	1.7	0.0	1.3	0.0	2.0	50.2	0.0	0.3	0.0	0.0	0.0	0.0	

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Rochester, NY 14623

File Name : Route75.Columbia.SAT
Site Code : 02607712
Start Date : 9/8/2007
Page No : 2

	Route 75 Southbound					Columbia Street Westbound					Route 75 Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Intersection	11:45 AM																				
Volume	0	781	19	0	800	21	0	17	0	38	26	986	0	2	1014	0	0	0	0	0	1852
Percent	0.0	97.6	2.4	0.0		55.3	0.0	44.7	0.0		2.6	97.2	0.0	0.2		0.0	0.0	0.0	0.0		
11:45 Volume	0	208	1	0	209	4	0	6	0	10	9	267	0	1	277	0	0	0	0	0	496
Peak Factor																					0.933
High Int.	12:30 PM					11:45 AM					11:45 AM					11:15:00 AM					
Volume	0	214	4	0	218	4	0	6	0	10	9	267	0	1	277						
Peak Factor					0.91					0.95					0.91						
					7					0					5						



A2

Miscellaneous Traffic Data and Calculations

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Proposed Camp Road Retail, Town of Hamburg

Documentation of Ambient Traffic Volume Growth

Roadway	Segment ends at	1991	1992	1993	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Annual Growth
NYS Route 75	CR 134 Legion Drive					15,100			17,000			19,300				4.17%
NYS Route 75	ACC Rt 901 NYS TWY		12,500	14,600		15,100					15,200			26,800		6.56%
NYS Route 75	Rt. 20 Southwestern Blvd.		22,200			18,900			25,100		23,300				25,848	1.18%
NYS Route 75	Rt. 5 Athol Spring End 75		19,700		15,500	19,600						21,400				0.83%
NYS Route 20	CR 122 Amsdell Road	12,200			13,500						10,600			13,000		0.49%
NYS Route 20	Rt. 75 Acc Rt. 90 I				19,800	20,300	21,300	20,300	20,900			23,300			22,808	1.42%
NYS Route 20	Rt. 62 SO Park Ave		17,400				19,900	20,400			21,200		24,800			3.27%
															Average	1.50%

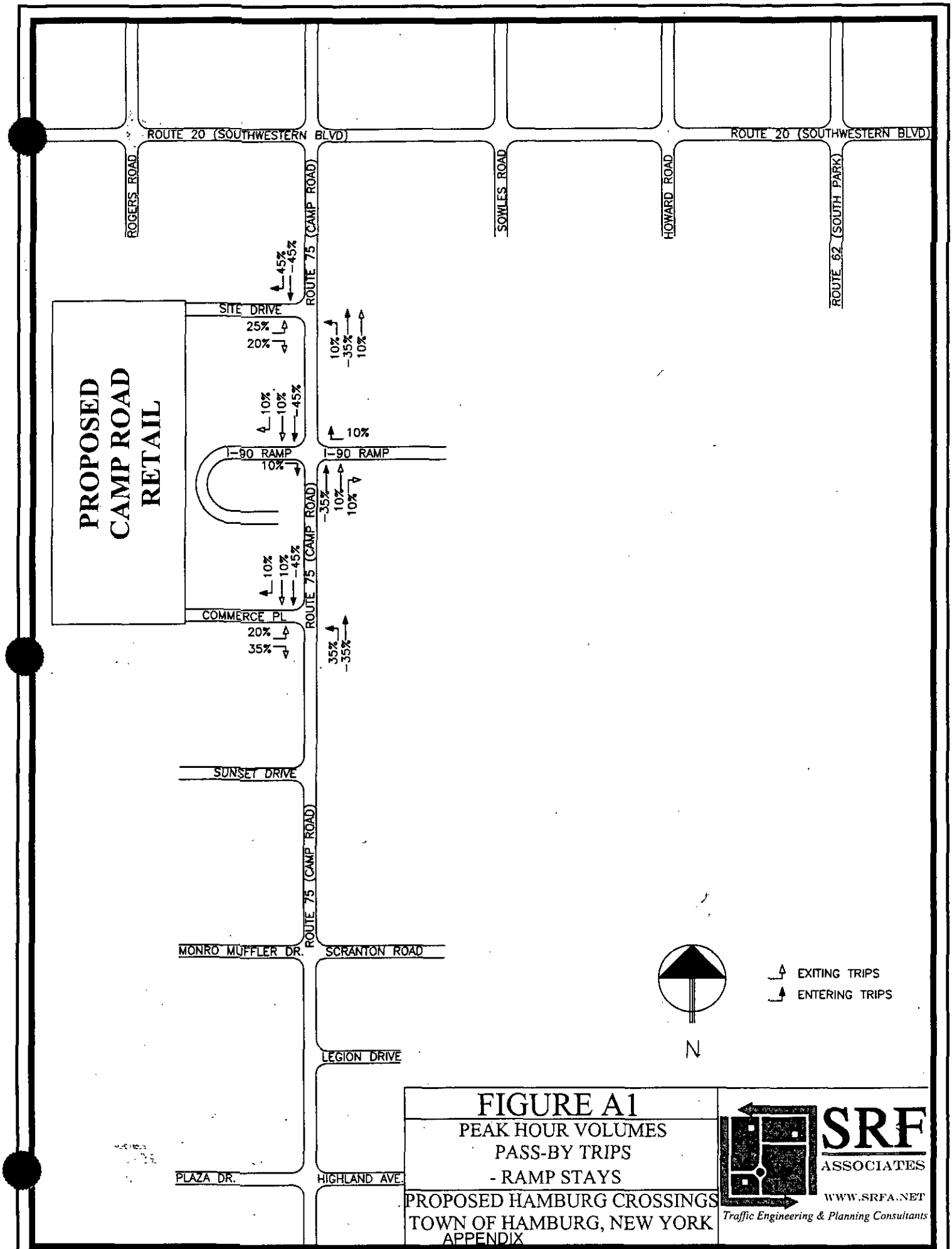


FIGURE A1

PEAK HOUR VOLUMES
PASS-BY TRIPS
- RAMP STAYS

PROPOSED HAMBURG CROSSINGS
TOWN OF HAMBURG, NEW YORK

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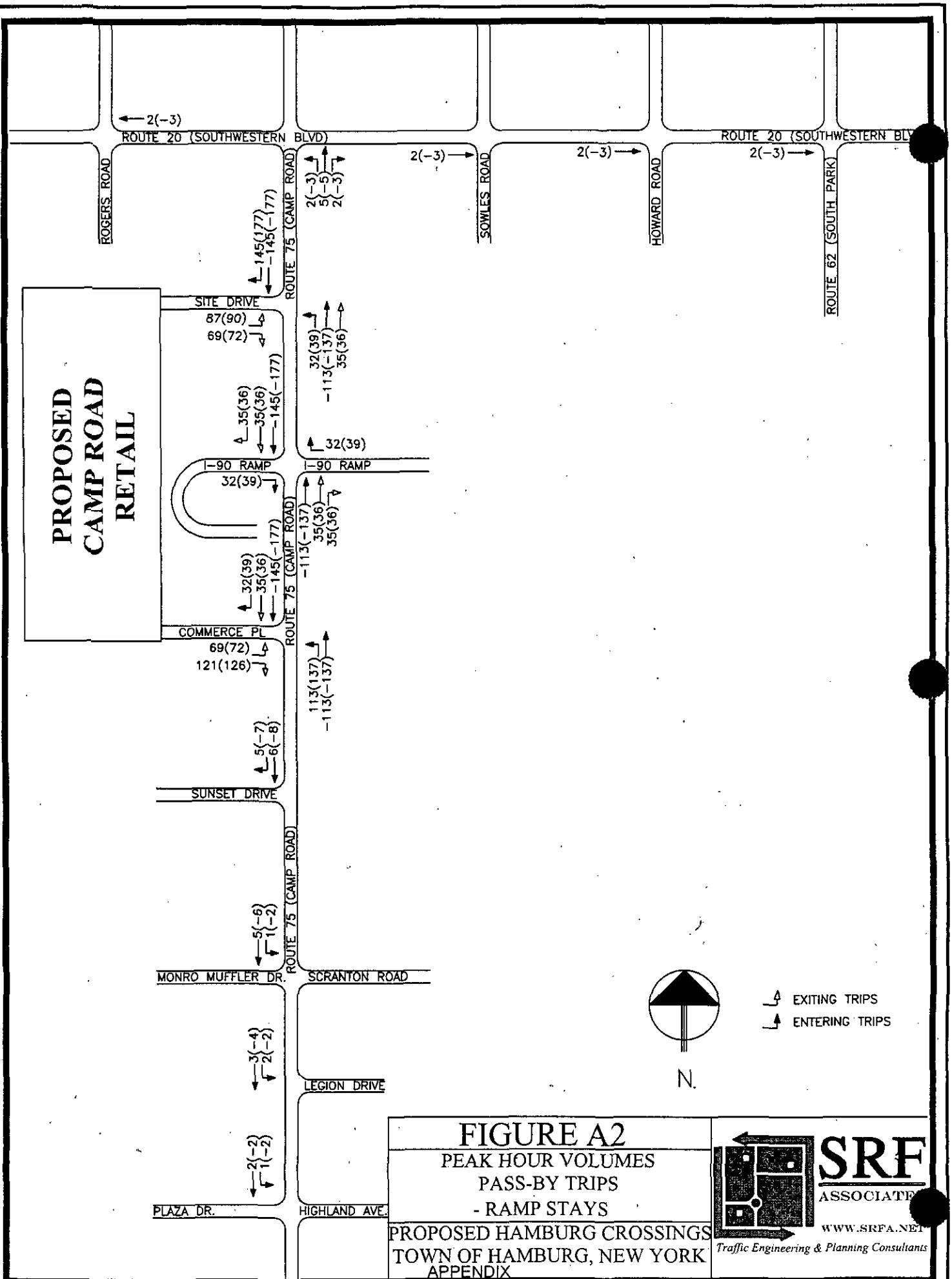


FIGURE A2

PEAK HOUR VOLUMES
PASS-BY TRIPS
- RAMP STAYS

PROPOSED HAMBURG CROSSINGS
TOWN OF HAMBURG, NEW YORK

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Summary of Trip Generation Calculation
For 115 Rooms of Hotel
May 23, 2007

	Average Rate	Standard Deviation	Adjustment Factor	Driveway Volume
Avg. Weekday 2-Way Volume	8.17	3.38	1.00	940
7-9 AM Peak Hour Enter	0.34	0.00	1.00	39
7-9 AM Peak Hour Exit	0.22	0.00	1.00	25
7-9 AM Peak Hour Total	0.56	0.78	1.00	64
4-6 PM Peak Hour Enter	0.31	0.00	1.00	36
4-6 PM Peak Hour Exit	0.28	0.00	1.00	32
4-6 PM Peak Hour Total	0.59	0.80	1.00	68
Saturday 2-Way Volume	8.19	3.13	1.00	942
Saturday Peak Hour Enter	0.40	0.00	1.00	46
Saturday Peak Hour Exit	0.32	0.00	1.00	37
Saturday Peak Hour Total	0.72	0.87	1.00	83

Note: A zero indicates no data available.
Source: Institute of Transportation Engineers
Trip Generation, 7th Edition, 2003.

TRIP GENERATION BY MICROTRANS

Summary of Trip Generation Calculation
For 652.813 T.G.L.A. of Shopping Center
May 23, 2007

	Average Rate	Standard Deviation	Adjustment Factor	Driveway Volume
Avg. Weekday 2-Way Volume	35.22	0.00	1.00	22991
7-9 AM Peak Hour Enter	0.45	0.00	1.00	294
7-9 AM Peak Hour Exit	0.29	0.00	1.00	188
7-9 AM Peak Hour Total	0.74	0.00	1.00	482
4-6 PM Peak Hour Enter	1.59	0.00	1.00	1037
4-6 PM Peak Hour Exit	1.72	0.00	1.00	1123
4-6 PM Peak Hour Total	3.31	0.00	1.00	2160
Saturday 2-Way Volume	46.15	0.00	1.00	30128
Saturday Peak Hour Enter	2.33	0.00	1.00	1524
Saturday Peak Hour Exit	2.15	0.00	1.00	1407
Saturday Peak Hour Total	4.49	0.00	1.00	2930

Note: A zero indicates no data available.
The above rates were calculated from these equations:

24-Hr. 2-Way Volume:	LN(T) = .65LN(X) + 5.83, R^2 = 0.78
7-9 AM Peak Hr. Total:	LN(T) = .6LN(X) + 2.29
	R^2 = 0.52 , 0.61 Enter, 0.39 Exit
4-6 PM Peak Hr. Total:	LN(T) = .66LN(X) + 3.4
	R^2 = 0.81 , 0.48 Enter, 0.52 Exit
AM Gen Pk Hr. Total:	0
	R^2 = 0 , 0 Enter, 0 Exit
PM Gen Pk Hr. Total:	0
	R^2 = 0 , 0 Enter, 0 Exit
Sat. 2-Way Volume:	LN(T) = .63LN(X) + 6.23, R^2 = 0.82
Sat. Pk Hr. Total:	LN(T) = .65LN(X) + 3.77
	R^2 = 0.84 , 0.52 Enter, 0.48 Exit
Sun. 2-Way Volume:	T = 15.63(X) + 4214.46, R^2 = 0.52
Sun. Pk Hr. Total:	0
	R^2 = 0 , 0 Enter, 0 Exit

Source: Institute of Transportation Engineers
Trip Generation, 7th Edition, 2003.

TRIP GENERATION BY MICROTRANS

PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
PM PEAK

Total Trips	1073	1155
Pass BY	30%	30%
Pass BY Trips	322	347

Num of yrs: 5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision		Woodstream Subdivision		Walmart Hamburg		Total Trips	Bkgd Volume	Pass-By Trips					Proposed Camp Road Retail - Opt A				Total Site Trips	Full Build Volumes
												Enter Dist. %	Exit Dist. %	Trips IN 322	Trips OUT 347	Total Pass-By	Enter Dist. %	Exit Dist. %	Trips IN 751	Trips OUT 809		
1	Route 75(Lake Street)/Highland Avenue																					
	SR	37	40								40											40
	ST	878	946								946					2		10%		81	83	1029
	SL	68	73								73					1		5%		40	41	114
	WR	44	47								47						5%		38		38	85
	WT	11	12								12											12
	WL	36	39								39											39
	NR	24	26								26											26
	NT	554	597								597						10%		75		75	672
	NL	6	6								6											6
	ER	2	2								2											2
	ET	6	6								6											6
	EL	24	26								26											26
2	Route 75(Camp Road)/Legion Drive																					
	SR																					
	ST	885	953								953					3		15%		121	124	1077
	SL	275	296						8	8	304					2		10%		81	83	387
	WR	278	299					8		8	307						10%		75		75	382
	WT																					
	WL	231	249								249											249
	NR	139	150								150											150
	NT	547	589								589						15%		113		113	702
	NL																					
	ER																					
	ET																					
	EL																					

PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
PM PEAK

Total Trips	1073	1155
Pass BY	30%	30%
Pass BY Trips	322	347

Num of yrs: 5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision	Woodstream Subdivision	Walmart Hamburg	Total Trips	Bkgd Volume	Pass-By Trips: Enter Dist. %	Exit Dist. %	Trips IN 322	Trips OUT 347	Total Pass-By	Proposed Camp Road Retail - Opt A: Enter Dist. %	Exit Dist. %	Trips IN 751	Trips OUT 809	Total Site Trips	Full Build Volumes
3	**Route 75(Camp Road)/Elmview Avenue**																		
	SR	16	17					17											17
	ST	1040	1120				8	1128					5		25%		202	207	1335
	SL																		
	WR																		
	WT																		
	WL																		
	NR																		
	NT	790	851			8	8	859						25%		188		188	1047
	NL	45	48					48											48
	ER	56	60					60											60
	ET																		
	EL	8	9					9											9
4	**Route 75(Camp Road)/Scranton Road**																		
	SR	0																	
	ST	880	948				8	956					5		25%		202	207	1163
	SL	156	168				8	176					1		5%		40	41	217
	WR	145	156			8	8	164						5%		38		38	202
	WT	0																	
	WL	120	129					129											129
	NR	106	114					114											114
	NT	616	664			8	8	672						25%		188		188	860
	NL	0																	
	ER	0																	
	ET	0																	
	EL	0																	
5	**Route 75(Camp Road)/Sunset Ct./Deacon St.**																		
	SR	3	3					3											3
	ST	1017	1096				16	1112					6		30%		243	249	1361
	SL	2	2					2											2
	WR	18	19					19											19
	WT																		
	WL	9	10					10											10
	NR	9	10					10											10
	NT	776	836			16	16	852						30%		225		225	1077
	NL	10	11					11											11
	ER	6	6					6											6
	ET																		
	EL	3	3					3											3

SRF ASSOCIATES

PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
PM PEAK

Total Trips	1073	1155
Pass BY	30%	30%
Pass BY Trips	322	347

Num of yrs
5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision	Woodstream Subdivision	Walmart Hamburg		Total Trips	Bkgd Volume	Pass-By Trips Enter Dist. %	Exit Dist. %	Trips IN 322	Trips OUT 347	Total Pass-By	Proposed Camp Road Retail - Opt A Enter Dist. %	Exit Dist. %	Trips IN 751	Trips OUT 809	Total Site Trips	Full Build Volumes
6	Route 75(Camp Road)/Sunset Drive																			
	SR	312	336					16	16	352					5		10%		81	86	438
	ST	930	1002					16	16	1018					6		30%		243	249	1267
	SL																				
	WR																				
	WT																				
	WL																				
	NR																				
	NT	585	630				16		16	646					30%		225		225	871
	NL	107	115							115										115
	ER	42	45							45										45
	ET																			
	EL	209	225				16		16	241					10%		75		75	316
7	Route 75(Camp Road)/Commerce Place																			
	SR	16	17							17	10%		32		4%		30		62	79
	ST	1355	1460				32		32	1492	-45%	10%	-145	35		5%		40	-70	1422
	SL																			
	WR																			
	WT																			
	WL																			
	NR																			
	NT	695	749				32		32	781	-35%		-113		5%		38		-75	706
	NL	6	6							6	35%		113		35%		263		376	382
	ER	13	14							14		35%		121		35%		283	404	418
	ET																			
	EL	8	9							9		20%		69		4%		32	102	111
8	Route 75(Camp Road)/Thruway Drive																			
	SR	267	288				42		42	330		10%		35		13%		105	140	470
	ST	979	1055				32		32	1087	-45%	10%	-145	35	2%	5%	15	40	-55	1032
	SL																			
	WR	632	681			41			41	722	10%		32		13%		98		130	852
	WT																			
	WL																			
	NR	227	245							245		10%		35		2%		16	51	296
	NT	476	513			32			32	545	-35%	10%	-113	35	5%	2%	38	16	-24	521
	NL																			
	ER	392	422							422	10%		32		2%		15		47	469
	ET																			
	EL																			

SRF

1/8/2008

PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
PM PEAK

Total Trips	1073	1155
Pass BY	30%	30%
Pass BY Trips	322	347

Num of yrs: 5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision	Woodstream Subdivision	Walmart Hamburg	Total Trips	Bkgd Volume	Pass-By Trips: Enter Dist. %	Exit Dist. %	Trips IN 322	Trips OUT 347	Total Pass-By	Proposed Camp Road Retail - Opt A: Enter Dist. %	Exit Dist. %	Trips IN 751	Trips OUT 809	Total Site Trips	Full Build Volumes
9	Route 75(Camp Road)/Proposed Site Drive																		
	SR								45%		145		145	43%		323		468	468
	ST	1246	1342				74	74	-45%		-145		-145	2%		15		-130	1286
	SL																		
	WR																		
	WT																		
	WL																		
	NR																		
	NT	1108	1194			73	73	1267	-35%	10%	-113	35	-78		2%		16	-62	1205
	NL								10%		32		32	18%		135		167	167
	ER									20%		69	69		18%		146	215	215
	ET																		
	EL									25%		87	87		43%		348	434	434
10	Route 75(Camp Road)/Dartmouth St																		
	SR																		
	ST	1261	1358				74	74						45%		338		338	1770
	SL	13	14																14
	WR	10	11																11
	WT																		
	WL	121	13					13											13
	NR	18	19					19											19
	NT	1192	1284			73	73	1357					9		45%		364	373	1730
	NL																		
	ER																		
	ET																		
	EL																		
11	Route 75(Camp Road)/Columbia St																		
	SR																		
	ST	1256	1353				74	74						45%		338		338	1765
	SL	21	23					23											23
	WR	24	26					26											26
	WT																		
	WL	21	23					23											23
	NR	38	41					41											41
	NT	1185	1277			73	73	1350					9		45%		364	373	1723
	NL																		
	ER																		
	ET																		
	EL																		

PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
PM PEAK

Total Trips	1073	1155
Pass BY	30%	30%
Pass BY Trips	322	347

Num of yrs
5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision		Woodstream Subdivision		Walmart Hamburg		Total Trips	Bkgd Volume	Pass-By Trips					Proposed Camp Road Retail - Opt A				Total Site Trips	Full Build Volumes
												Enter Dist. %	Exit Dist. %	Trips IN 322	Trips OUT 347	Total Pass-By	Enter Dist. %	Exit Dist. %	Trips IN 751	Trips OUT 809		
12	Route 75(Camp Road)/Route 20(Southwestern Blvd)																					
	SR	262	282	24		12		73		109	391											391
	ST	750	808								808						20%		150		150	958
	SL	21	23								23											23
	WR	14	15								15											15
	WT	737	794	18		9		55		82	876											876
	WL	296	319								319						15%		113		113	432
	NR	276	297								297					2		15%		121	123	420
	NT	436	470								470					5		20%		162	167	637
	NL	362	390	24		12		73		109	499					2		10%		81	83	582
	ER	200	215		14		7		74	95	310						10%		75		75	385
	ET	370	399		10		5		55	70	469											469
	EL	134	144		14		7		74	95	239											239
13	Route 20(Southwestern Blvd)/Rogers Road																					
	SR	31	33				8			8	41											41
	ST	76	82				3		11	14	96											96
	SL	110	119				19			19	138						2%		15		15	153
	WR	176	190			32				32	222							2%		16	16	238
	WT	877	945	66					76	142	1087					2		8%		65	67	1154
	WL	21	23						26	26	49											49
	NR	12	13					26		26	39											39
	NT	85	92			6		11		17	109											109
	NL	21	23								23											23
	ER	18	19								19											19
	ET	521	561		38			73		111	672						8%		60		60	732
	EL	16	17			13				13	30											30
14	Route 20(Southwestern Blvd)/Sowles Road																					
	SR	7	8								8											8
	ST	149	161								161											161
	SL	53	57								57											57
	WR	75	81								81											81
	WT	698	752					44		44	796						12%		90		90	886
	WL	18	19								19											19
	NR	44	47								47											47
	NT	83	89								89											89
	NL	126	136					11		11	147						3%		23		23	170
	ER	123	133						11	11	144							3%		24	24	168
	ET	568	612						44	44	656					2		12%		97	99	755
	EL	11	12								12											12

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PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
PM PEAK

Total Trips	1073	1155
Pass BY	30%	30%
Pass BY Trips	322	347

Num of yrs
5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision		Woodstream Subdivision		Walmart Hamburg		Total Trips	Bkgd Volume	Pass-By Trips Enter Dist. %	Exit Dist. %	Trips IN 322	Trips OUT 347	Total Pass-By	Proposed Camp Road Retail - Opt A Enter Dist. %	Exit Dist. %	Trips IN 751	Trips OUT 809	Total Site Trips	Full Build Volumes
15	Route 20(Southwestern Blvd)/Howard Road																					
	SR	49	53					5		5	58						2%		15		15	73
	ST	0																				
	SL	98	106								106											106
	WR	122	131								131											131
	WT	708	763					39		39	802						10%		75		75	877
	WL	2	2								2											2
	NR	0																				
	NT	0																				
	NL	1	1								1											1
	ER	0																				
	ET	612	659						38	38	697					2		10%		81	83	780
	EL	49	53						6	6	59							2%		16	16	75
16	Route 20(Southwestern Blvd)/Route 65 (South Park)																					
	SR	204	220					4		4	224						3%		23		23	247
	ST	559	602								602											602
	SL	42	45								45											45
	WR	40	43								43											43
	WT	576	621					31		31	652						6%		45		45	697
	WL	129	139								139											139
	NR	127	137								137											137
	NT	415	447								447											447
	NL	75	81					4		4	85						1%		8		8	93
	ER	50	54						4	4	58							1%		8	8	66
	ET	541	583						30	30	613					2		6%		49	51	664
	EL	178	192						4	4	196					1		3%		24	24	220

PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
SAT PEAK

Total Trips	1570	1444
Pass BY	25%	25%
Pass BY Trips	393	361

Num of yrs
5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision		Woodstream Subdivision		Walmart Hamburg		Total Trips	Bkgd Volume	Pass-By Trips					Proposed Camp Road Retail - Opt A				Total Site Trips	Full Build Volumes
												Enter Dist. %	Exit Dist. %	Trips IN 393	Trips OUT 361	Total Pass-By	Enter Dist. %	Exit Dist. %	Trips IN 1178	Trips OUT 1083		
1	Route 75(Lake Street)/Highland Avenue																					
	SR	17	18								18											18
	ST	509	548								548					-2		10%		108	106	654
	SL	49	53								53					-2		5%		54	52	105
	WR	77	83								83						5%		59		59	142
	WT	4	4								4											4
	WL	29	31								31											31
	NR	32	34								34											34
	NT	648	698								698						10%		118		118	816
	NL	3	3								3											3
	ER	2	2								2											2
	ET	2	2								2											2
	EL	10	11								11											11
2	Route 75(Camp Road)/Legion Drive																					
	SR																					
	ST	460	496								496					-4		15%		162	158	654
	SL	220	237						11	11	248					-2		10%		108	106	354
	WR	250	269					11		11	280						10%		118		118	398
	WT																					
	WL	173	186								186											186
	NR	176	190								190											190
	NT	502	541								541						15%		177		177	718
	NL																					
	ER																					
	ET																					
	EL																					

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PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
SAT PEAK

Total Trips	1570	1444
Pass BY	25%	25%
Pass BY Trips	393	361

Num of yrs
5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision		Woodstream Subdivision		Walmart Hamburg		Total Trips	Bkgd Volume	Pass-By Trips					Proposed Camp Road Retail - Opt A				Total Site Trips	Full Build Volumes
												Enter Dist. %	Exit Dist. %	Trips IN 393	Trips OUT 361	Total Pass-By	Enter Dist. %	Exit Dist. %	Trips IN 1178	Trips OUT 1083		
3	Route 75(Camp Road)/Elmview Avenue																					
	SR	30	32								32											32
	ST	615	663						11	11	674					-6		25%		271	265	939
	SL																					
	WR																					
	WT																					
	WL																					
	NR																					
	NT	739	796					11		11	807						25%		294		294	1101
	NL	42	45								45											45
	ER	40	43								43											43
	ET																					
	EL	10	11								11											11
4	Route 75(Camp Road)/Scranton Road																					
	SR	1	1								1											1
	ST	520	560						11	11	571					-6		25%		271	265	836
	SL	107	115						11	11	126					-2		5%		54	52	178
	WR	106	114					11		11	125						5%		59		59	184
	WT	1	1								1											1
	WL	100	108								108											108
	NR	75	81								81											81
	NT	633	682					11		11	693						25%		294		294	987
	NL	1	1								1											1
	ER	2	2								2											2
	ET	0																				
	EL	1	1								1											1
5	Route 75(Camp Road)/Sunset Ct./Deacon St.																					
	SR																					
	ST	610	657						22	22	679					-8		30%		325	317	996
	SL	6	6								6											6
	WR	16	17								17											17
	WT																					
	WL	19	20								20											20
	NR	3	3								3											3
	NT	739	796					22		22	818						30%		353		353	1171
	NL	13	14								14											14
	ER	16	17								17											17
	ET																					
	EL	3	3								3											3

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PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
SAT PEAK

Total Trips	1570	1444
Pass BY	25%	25%
Pass BY Trips	393	361

Num of yrs
5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision		Woodstream Subdivision		Walmart Hamburg		Total Trips	Bkgd Volume	Pass-By Trips					Proposed Camp Road Retail - Opt A				Total Site Trips	Full Build Volumes
												Enter Dist. %	Exit Dist. %	Trips IN 393	Trips OUT 361	Total Pass-By	Enter Dist. %	Exit Dist. %	Trips IN 1178	Trips OUT 1083		
6	Route 75(Camp Road)/Sunset Drive																					
	SR	121	130						22	22	152					-7		10%		108	101	253
	ST	550	593						22	22	615					-8		30%		325	317	932
	SL																					
	WR																					
	WT																					
	WL																					
	NR																					
	NT	625	673					22		22	695						30%		353		353	1048
	NL	74	80								80											80
	ER	63	68								68											68
	ET																					
	EL	172	185					22		22	207						10%		118		118	325
7	Route 75(Camp Road)/Commerce Place																					
	SR	15	16								16	10%		39		39	4%		47		86	102
	ST	713	768						44	44	812	-45%	10%	-177	36	-141		5%		54	-86	726
	SL																					
	WR																					
	WT																					
	WL																					
	NR																					
	NT	648	698					44		44	742	-35%		-137		-137	5%		59		-79	664
	NL	5	5								5	35%		137		137	35%		412		550	555
	ER	17	18								18		35%		126	126		35%		379	505	523
	ET																					
	EL	15	16								16		20%		72	72		4%		43	116	132
8	Route 75(Camp Road)/Thruway Drive																					
	SR	243	262						65	65	327		10%		36	36		13%		141	177	504
	ST	572	616						44	44	660	-45%	10%	-177	36	-141	2%	5%	24	54	-63	597
	SL																					
	WR	467	503					71		71	574	10%		39		39	13%		153		192	766
	WT																					
	WL																					
	NR	175	189								189		10%		36	36		2%		22	58	247
	NT	488	526					44		44	570	-35%	10%	-137	36	-101	5%	2%	59	22	-21	549
	NL																					
	ER	156	168								168	10%		39		39	2%		24		63	231
	ET																					
	EL																					

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PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
SAT PEAK

Total Trips	*1570*	*1444*
Pass BY	25%	25%
Pass BY Trips	393	361

Num of yrs: 5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision		Woodstream Subdivision		Walmart Hamburg		Total Trips	Bkgd Volume	Pass-By Trips					Proposed Camp Road Retail - Opt A				Total Site Trips	Full Build Volumes
												Enter Dist. %	Exit Dist. %	Trips IN 393	Trips OUT 361	Total Pass-By	Enter Dist. %	Exit Dist. %	Trips IN 1178	Trips OUT 1083		
9	Route 75(Camp Road)/Proposed Site Drive																					
	SR											45%		177		177	43%		506		683	683
	ST	815	878						109	109	987	-45%		-177		-177	2%		24		-153	834
	SL																					
	WR																					
	WT																					
	WL																					
	NR																					
	NT	955	1029					115		115	1144	-35%	10%	-137	36	-101		2%		22	-80	1064
	NL											10%		39		39	18%		212		251	251
	ER												20%		72	72		18%		195	267	267
	ET																					
	EL												25%		90	90		43%		466	556	556
10	Route 75(Camp Road)/Dartmouth St																					
	SR																					
	ST	820	883						109	109	992						45%		530		530	1522
	SL	9	10								10											10
	WR	4	4								4											4
	WT																					
	WL	9	10								10											10
	NR	37	40								40											40
	NT	985	1061					115		115	1176					-11		45%		487	476	1652
	NL																					
	ER																					
	ET																					
	EL																					
11	Route 75(Camp Road)/Columbia St																					
	SR																					
	ST	781	841						109	109	950						45%		530		530	1480
	SL	19	20								20											20
	WR	21	23								23											23
	WT																					
	WL	17	18								18											18
	NR	26	28								28											28
	NT	986	1062					115		115	1177					-11		45%		487	476	1653
	NL																					
	ER																					
	ET																					
	EL																					

PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
SAT PEAK

Total Trips	1570	1444
Pass BY	25%	25%
Pass BY Trips	393	361

Num of yrs
5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision		Woodstream Subdivision		Walmart Hamburg		Total Trips	Bkgd Volume	Pass-By Trips					Proposed Camp Road Retail - Opt A				Total Site Trips	Full Build Volumes
												Enter Dist. %	Exit Dist. %	Trips IN 393	Trips OUT 361	Total Pass-By	Enter Dist. %	Exit Dist. %	Trips IN 1178	Trips OUT 1083		
12	Route 75(Camp Road)/Route 20(Southwestern Blvd)																					
	SR	104	112	22		9		115		146	258											258
	ST	281	303								303						20%		236		236	539
	SL	32	34								34											34
	WR	33	36								36											36
	WT	503	542	17		7		86		110	652											652
	WL	271	292								292						15%		177		177	469
	NR	307	331								331					-3		15%		162	159	490
	NT	363	391								391					-5		20%		217	212	603
	NL	240	259	22		9		115		146	405					-3		10%		108	105	510
	ER	194	209		19		8		109	136	345						10%		118		118	463
	ET	435	469		14		6		78	98	567											567
	EL	111	120		19		8		109	136	256											256
13	Route 20(Southwestern Blvd)/Rogers Road																					
	SR	27	29				9			9	38											38
	ST	82	88				4		16	20	108											108
	SL	118	127				22			22	149						2%		24		24	173
	WR	123	133			26				26	159							2%		22	22	181
	WT	517	557	61					105	166	723					-3		8%		87	84	807
	WL	13	14						38	38	52											52
	NR	14	15					40		40	55											55
	NT	57	61			5		17		22	83											83
	NL	15	16								16											16
	ER	14	15								15											15
	ET	519	559		52			115		167	726						8%		94		94	820
	EL	30	32			11				11	43											43
14	Route 20(Southwestern Blvd)/Sowles Road																					
	SR	23	25								25											25
	ST	62	67								67											67
	SL	31	33								33											33
	WR	45	48								48											48
	WT	520	560					68		68	628						12%		141		141	769
	WL	12	13								13											13
	NR	28	30								30											30
	NT	64	69								69											69
	NL	117	126					18		18	144						3%		35		35	179
	ER	123	133						16	16	149							3%		32	32	181
	ET	583	628						62	62	690					-3		12%		130	127	817
	EL	20	22								22											22

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PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
SAT PEAK

Total Trips	1570	1444
Pass BY	25%	25%
Pass BY Trips	393	361

Num of yrs
5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision		Woodstream Subdivision		Walmart Hamburg		Total Trips	Bkgd Volume	Pass-By Trips					Proposed Camp Road Retail - Opt A				Total Site Trips	Full Build Volumes
												Enter Dist. %	Exit Dist. %	Trips IN 393	Trips OUT 361	Total Pass-By	Enter Dist. %	Exit Dist. %	Trips IN 1178	Trips OUT 1083		
15	Route 20(Southwestern Blvd)/Howard Road																					
	SR	36	39					7		7	46						2%		24		24	70
	ST	0																				
	SL	97	104								104											104
	WR	91	98								98											98
	WT	599	645					61		61	706						10%		118		118	824
	WL																					
	NR																					
	NT																					
	NL	1	1								1											1
	ER	1	1								1											1
	ET	682	735						54	54	789					-3		10%		108	105	894
	EL	38	41						8	8	49							2%		22	22	71
16	Route 20(Southwestern Blvd)/Route 65 (South Park)																					
	SR	147	158					6		6	164						3%		35		35	199
	ST	371	400								400											400
	SL	50	54								54											54
	WR	38	41								41											41
	WT	530	571					49		49	620						6%		71		71	691
	WL	99	107								107											107
	NR	141	152								152											152
	NT	390	420								420											420
	NL	54	58					6		6	64						1%		12		12	76
	ER	81	87						6	6	93							1%		11	11	104
	ET	624	672						42	42	714					-3		6%		65	62	776
	EL	128	138						6	6	144							3%		32	32	176

Traffic Signal Warrant Analysis

NYS Route 75 - Proposed Site Drive

Town of Hamburg, Erie County

Hour			Existing Fluctuation in Artery Volumes per NYSDOT count on Route 75 NB	per NYSDOT count on Route 75 SB	per NYSDOT count on Route 75 Two-Way	Hourly Fluctuation Two-Way	**Full Development Artery Volume on Route 75 at site drive Total**	Hourly Fluctuation of retail facility driveway traffic **Exiting**	**Total Hourly Volumes Exiting Proposed Retail Facility**
7:00 AM	to	8:00 AM	1061	655	1716	6.64%	**2134**		**0**
8:00 AM	to	9:00 AM	1035	677	1712	6.62%	**2129**		**0**
9:00 AM	to	10:00 AM	763	636	1399	5.41%	**1740**		**0**
10:00 AM	to	11:00 AM	723	650	1373	5.31%	**1708**	3.70%	**253**
11:00 AM	to	12:00 PM	799	710	1509	5.84%	**1877**	5.90%	**403**
12:00 PM	to	1:00 PM	847	747	1594	6.17%	**1982**	7.90%	**540**
1:00 PM	to	2:00 PM	840	745	1585	6.13%	**1971**	8.20%	**560**
2:00 PM	to	3:00 PM	900	799	1699	6.57%	**2113**	8.80%	**601**
3:00 PM	to	4:00 PM	964	894	1858	7.19%	**2311**	8.90%	**608**
4:00 PM	to	5:00 PM	1101	1012	2113	8.17%	**2628**	9.10%	**622**
5:00 PM	to	6:00 PM	1110	1057	2167	8.38%	**2695**	9.50%	**649**
6:00 PM	to	7:00 PM	949	842	1791	6.93%	**2227**	7.70%	**526**
7:00 PM	to	8:00 PM	696	608	1304	5.04%	**1622**	7.00%	**478**
8:00 PM	to	9:00 PM	512	415	927	3.59%	**1153**	7.70%	**526**
9:00 PM	to	10:00 PM	420	352	772	2.99%	**960**	9.10%	**622**
10:00 PM	to	11:00 PM	308	298	606	2.34%	**754**		**0**
					25,848		32,146		6,832

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Traffic Signal Warrant Analysis

NYS Route 75 - Proposed Site Drive

Town of Hamburg, Erie County

Hour			Existing Fluctuation in Artery Volumes per NYSDOT count on Route 75 NB	per NYSDOT count on Route 75 SB	per NYSDOT count on Route 75 Two-Way	Hourly Fluctuation Two-Way	**Full Development Artery Volume on Route 75 at commerce place** **Total**	Hourly Fluctuation of *retail facility* driveway traffic **Exiting**	**Total Hourly Volumes *Exiting Proposed Retail* Facility**
7:00 AM	to	8:00 AM	1061	655	1716	6.64%	**2050**		**0**
8:00 AM	to	9:00 AM	1035	677	1712	6.62%	**2045**		**0**
9:00 AM	to	10:00 AM	763	636	1399	5.41%	**1671**		**0**
10:00 AM	to	11:00 AM	723	650	1373	5.31%	**1640**	3.70%	**206**
11:00 AM	to	12:00 PM	799	710	1509	5.84%	**1803**	5.90%	**329**
12:00 PM	to	1:00 PM	847	747	1594	6.17%	**1904**	7.90%	**440**
1:00 PM	to	2:00 PM	840	745	1585	6.13%	**1894**	8.20%	**457**
2:00 PM	to	3:00 PM	900	799	1699	6.57%	**2030**	8.80%	**490**
3:00 PM	to	4:00 PM	964	894	1858	7.19%	**2220**	8.90%	**496**
4:00 PM	to	5:00 PM	1101	1012	2113	8.17%	**2524**	9.10%	**507**
5:00 PM	to	6:00 PM	1110	1057	2167	8.38%	**2589**	9.50%	**529**
6:00 PM	to	7:00 PM	949	842	1791	6.93%	**2140**	7.70%	**429**
7:00 PM	to	8:00 PM	696	608	1304	5.04%	**1558**	7.00%	**390**
8:00 PM	to	9:00 PM	512	415	927	3.59%	**1108**	7.70%	**429**
9:00 PM	to	10:00 PM	420	352	772	2.99%	**922**	9.10%	**507**
10:00 PM	to	11:00 PM	308	298	606	2.34%	**724**		**0**
					25,848		30,882		5,568

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Guideline for a major-road left-turn bay on a four lane undivided Road at an unsignalized intersection

INPUT

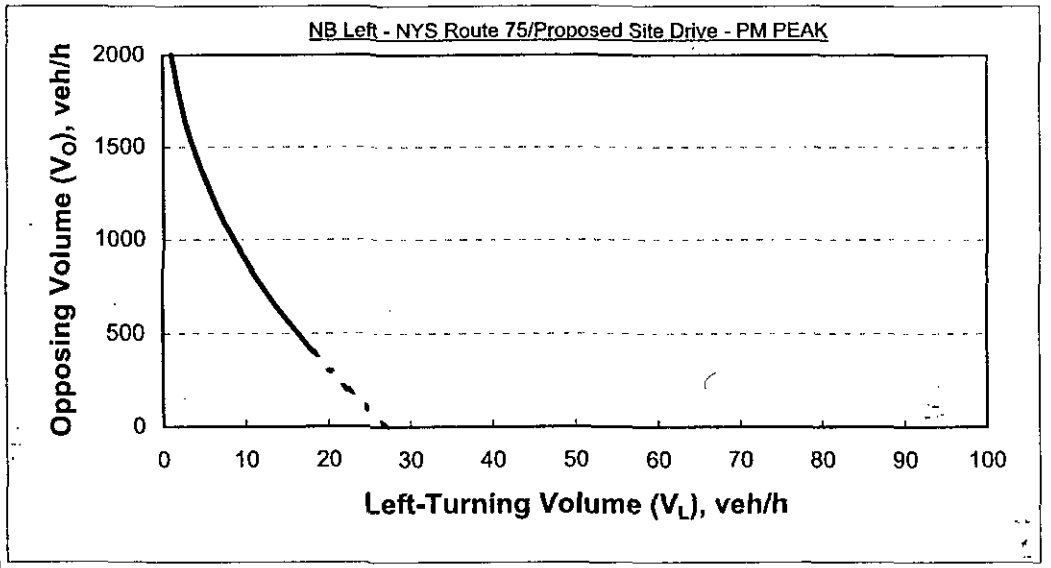
Variable	Value
Left-turning volume (V_L), veh/h:	167
Advancing volume (V_A), veh/h: (Left + Thru + Right)	1048
Opposing volume (V_O), veh/h: (Left + Thru + Right)	1647

OUTPUT

Variable	Message
Combined volume (V_A and V_O) check:	O.K.
Guidance for determining the need for a major-road left-turn bay:	
LEFT-TURN TREATMENT WARRANTED.	

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	4.0
Critical headway/Gap, s:	6.0



Note: When V_O < 400 veh/h (dashed line), a left-turn lane is not normally warranted unless the advancing volume (V_A) in the same direction as the left-turning traffic exceeds 400 veh/h (V_A > 400 veh/h).

Guideline for a major-road left-turn bay on a four lane undivided Road at an unsignalized intersection

INPUT

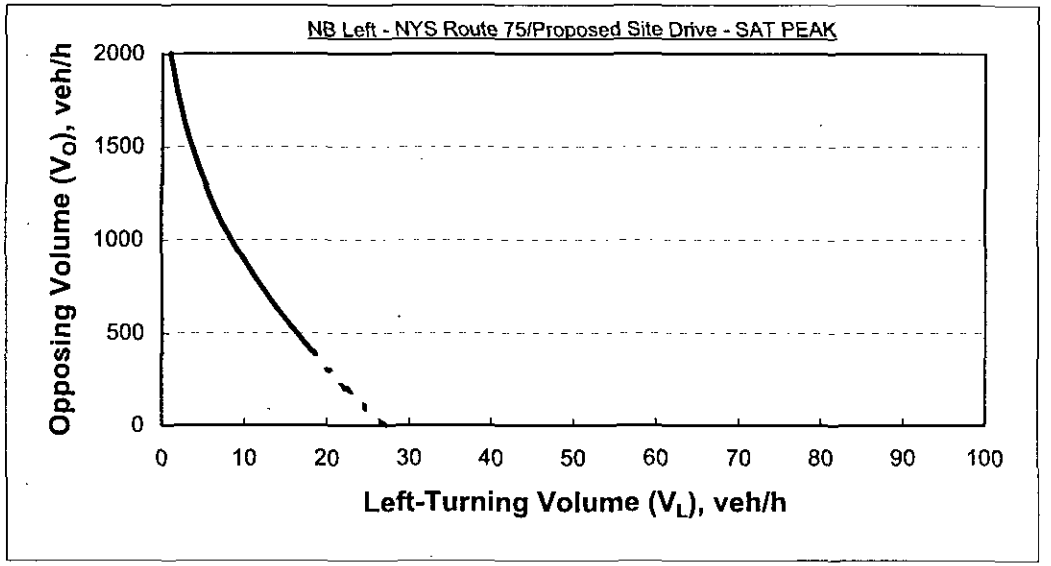
Variable	Value
Left-turning volume (V_L), veh/h:	251
Advancing volume (V_A), veh/h: (Left + Thru + Right)	992
Opposing volume (V_O), veh/h: (Left + Thru + Right)	1409

OUTPUT

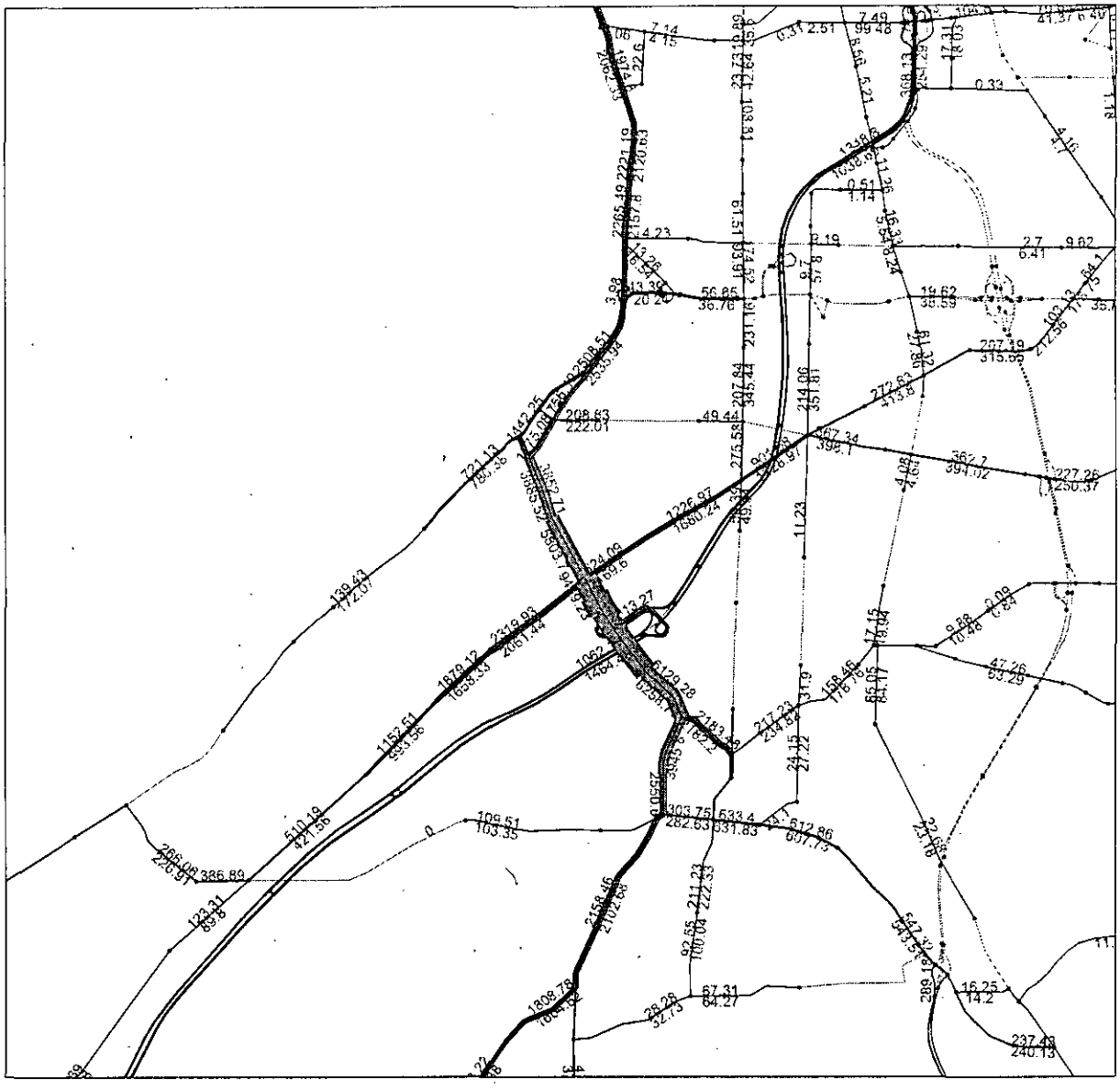
Variable	Message
Combined volume (V_A and V_O) check:	O.K.
Guidance for determining the need for a major-road left-turn bay:	
LEFT-TURN TREATMENT WARRANTED.	

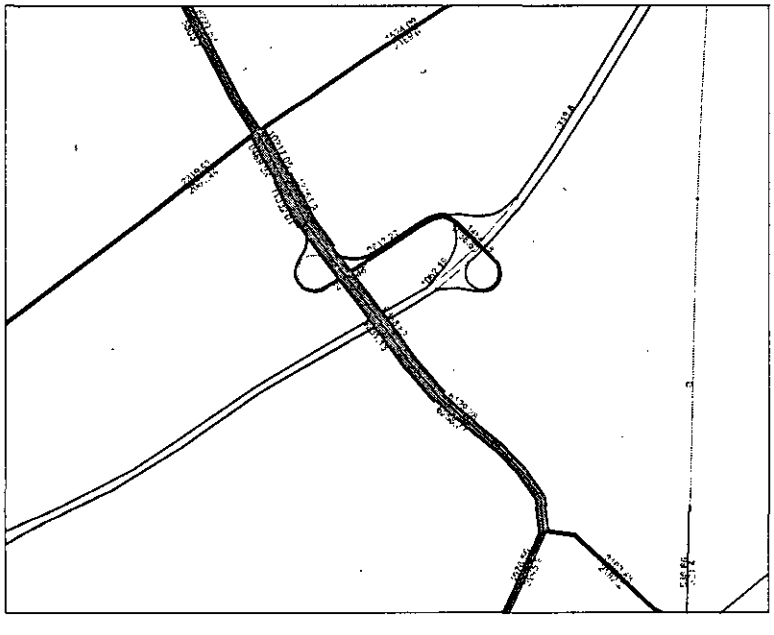
CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	4.0
Critical headway/Gap, s:-	6.0



Note: When V_O < 400 veh/h (dashed line), a left-turn lane is not normally warranted unless the advancing volume (V_A) in the same direction as the left-turning traffic exceeds 400 veh/h (V_A > 400 veh/h).





2005 Base Year
Camp Road Select Links

10000 5000 2500

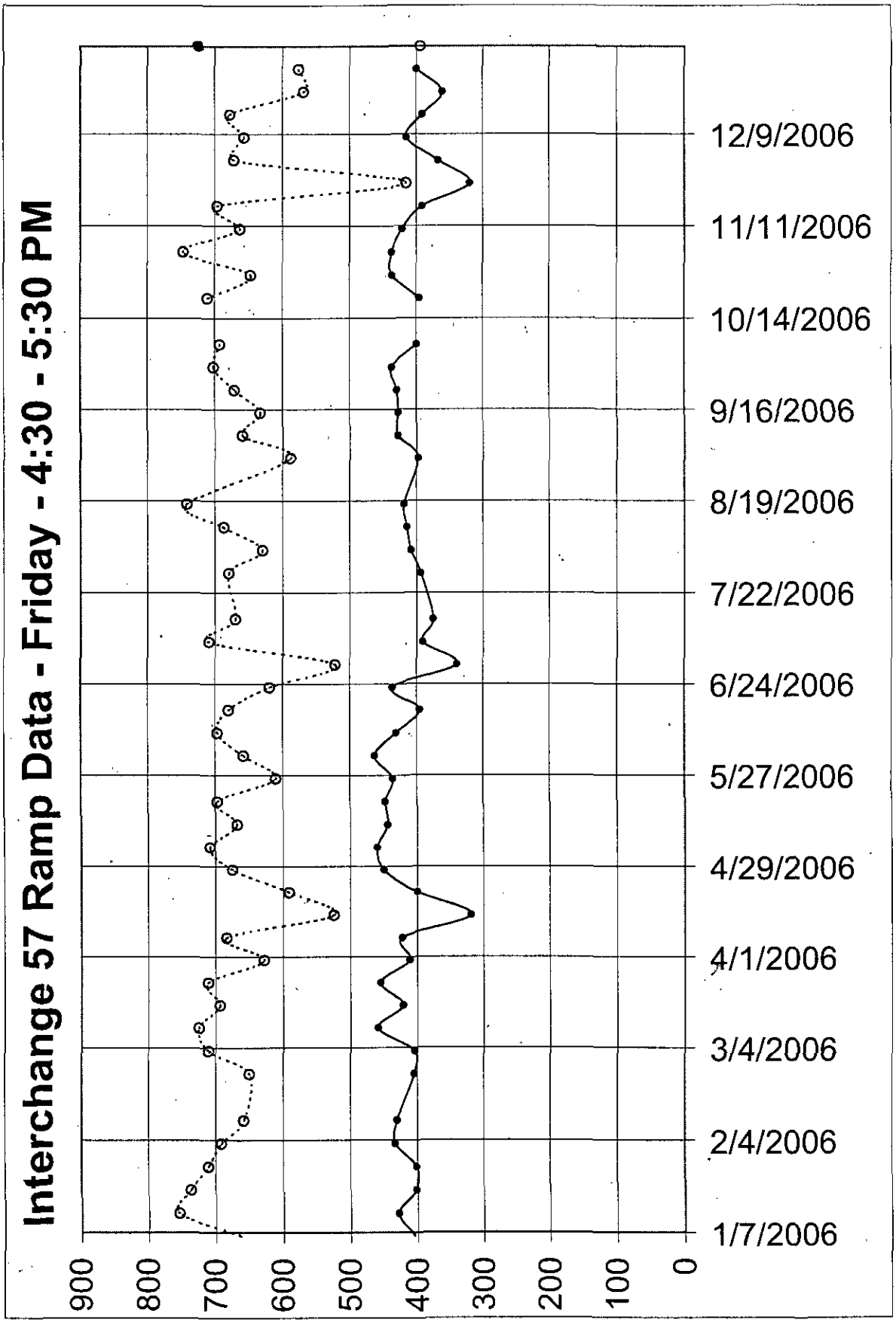
ADT

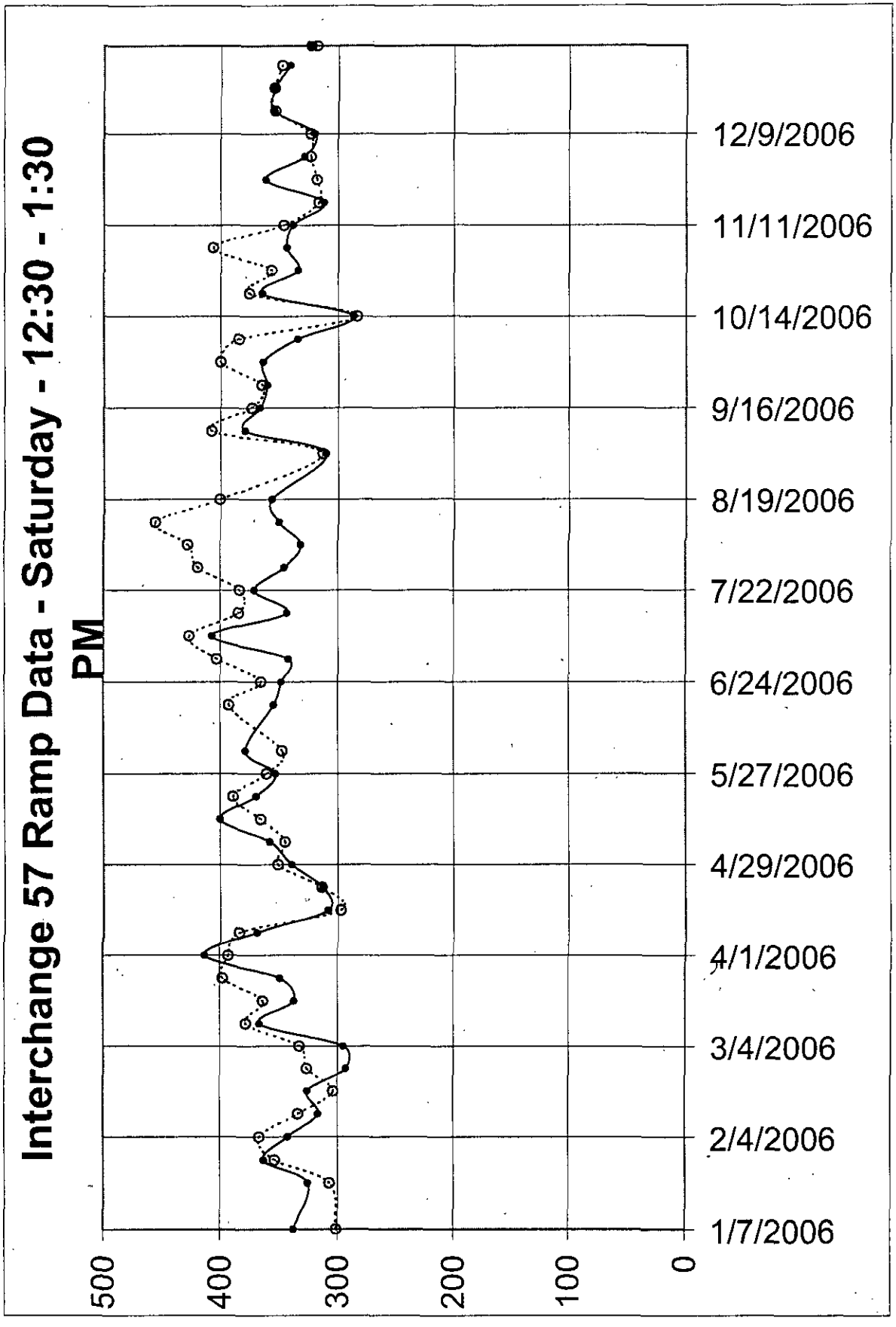
0 .5 1 1.5

Miles

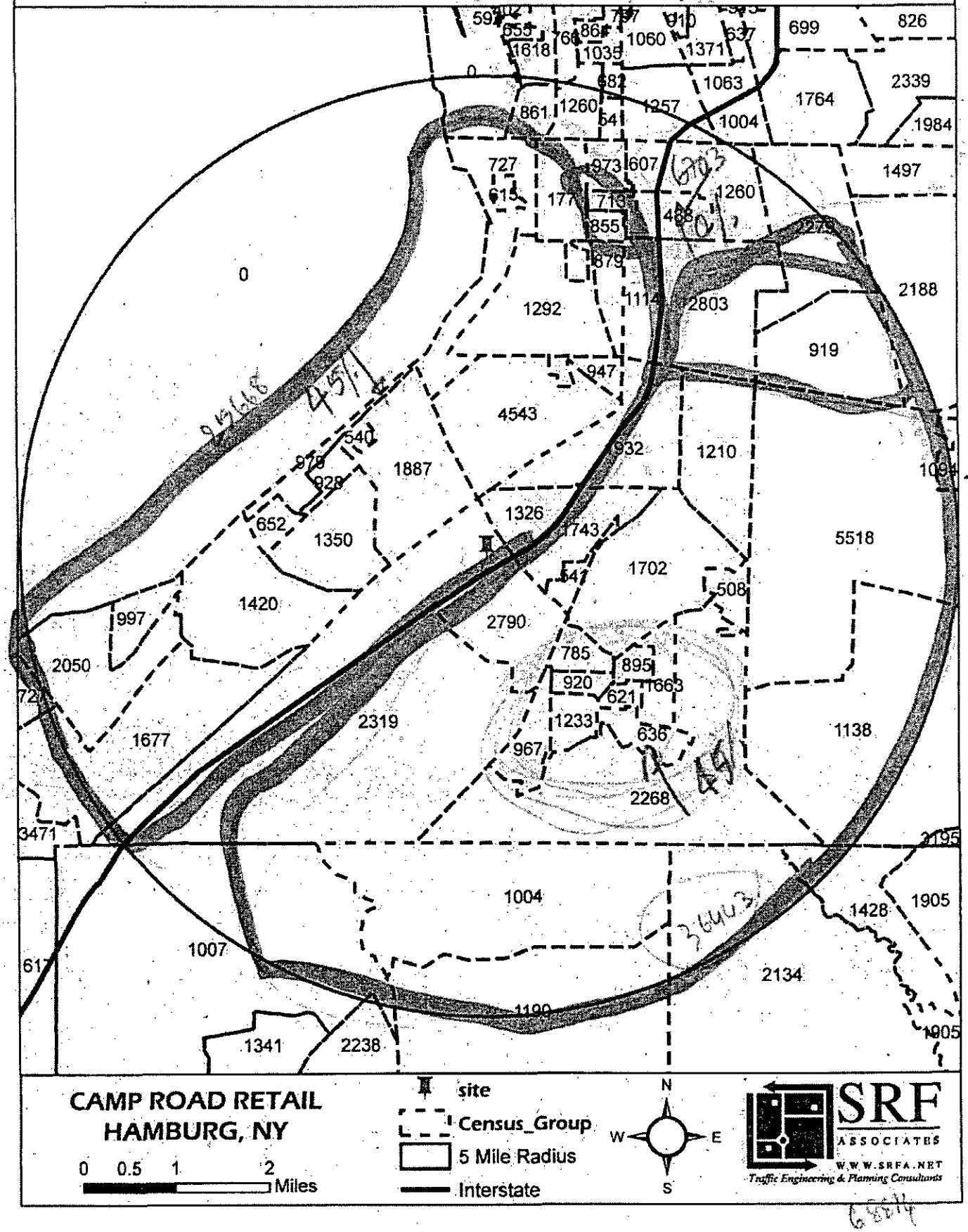
2005 Base Year
Camp Road Select Link Analysis

GBNRTC GREATER BUFFALO-NIAGARA REGIONAL TRANSPORTATION COUNCIL


Interchange 57 Ramp Data - Friday - 4:30 - 5:30 PM
12/9/2006
11/11/2006
10/14/2006
9/16/2006
8/19/2006
7/22/2006
6/24/2006
5/27/2006
4/29/2006
4/1/2006
3/4/2006
2/4/2006
1/7/2006
900
800
700
600
500
400
300
200
100
0


Interchange 57 Ramp Data - Saturday - 12:30 - 1:30 PM
12/9/2006
11/11/2006
10/14/2006
9/16/2006
8/19/2006
7/22/2006
6/24/2006
5/27/2006
4/29/2006
4/1/2006
3/4/2006
2/4/2006
1/7/2006
500
400
300
200
100
0

CENSUS INFORMATION



A3

Level of Service: Criteria and Definitions

Level of Service Criteria

Highway Capacity Manual 2000

SIGNALIZED INTERSECTIONS

Level of Service is a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. Level of Service for signalized intersections is defined in terms of delay specifically, average total delay per vehicle for a 15 minute analysis period. The ranges are as follows:

Level of Service	Control Delay per vehicle (seconds)
A	< 10
B	10 – 20
C	20 – 35
D	35 – 55
E	55 – 80
F	>80

UNSIGNALIZED INTERSECTIONS

Level of Service for unsignalized intersections is also defined in terms of delay. However, the delay criteria are different from a signalized intersection. The primary reason for this is driver expectation that a signalized intersection is designed to carry higher volumes than an unsignalized intersection. The total delay threshold for any given Level of Service is less for an unsignalized intersection than for a signalized intersection. The ranges are as follows:

Level of Service	Control Delay per vehicle (seconds)
A	< 10
B	10 – 15
C	15 – 25
D	25 – 35
E	35 - 50
F	>50

A4

Level of Service Calculations: Existing Conditions

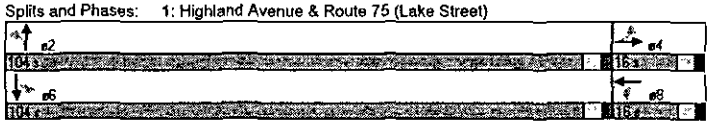
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		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		0.965			0.881			0.994			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1798	0	1770	1641	0	1770	1852	0	1770	1852	0
Flt Permitted	0.698			0.749			0.227			0.380		
Satd. Flow (perm)	1300	1798	0	1395	1641	0	423	1852	0	708	1852	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			54			8			8	
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			30			30	
Link Distance (ft)		200			370			446			287	
Travel Time (s)		4.5			8.4			10.1			6.5	
Volume (vph)	24	6	2	36	11	44	6	554	24	68	878	37
Peak Hour Factor	0.62	0.62	0.62	0.81	0.81	0.81	0.87	0.87	0.87	0.89	0.89	0.89
Adj. Flow (vph)	39	10	3	44	14	54	7	637	28	76	987	42
Lane Group Flow (vph)	39	13	0	44	68	0	7	665	0	76	1029	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	22.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	16.0	16.0	0.0	16.0	16.0	0.0	104.0	104.0	0.0	104.0	104.0	0.0
Total Split (%)	13.3%	13.3%	0.0%	13.3%	13.3%	0.0%	86.7%	86.7%	0.0%	86.7%	86.7%	0.0%
Maximum Green (s)	11.0	11.0		11.0	11.0		99.0	99.0		99.0	99.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
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)	9.8	9.8		9.8	9.8		104.0	104.0		104.0	104.0	
Actuated g/C Ratio	0.08	0.08		0.08	0.08		0.87	0.87		0.87	0.87	
v/c Ratio	0.37	0.09		0.39	0.37		0.02	0.41		0.12	0.63	
Control Delay	61.0	43.5		61.2	24.0		1.8	2.9		2.1	5.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	61.0	43.5		61.2	24.0		1.8	2.9		2.1	5.1	
LOS	E	D		E	C		A	A		A	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		56.6			38.6			2.8			4.9	
Approach LOS		E			D			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 118.9
Natural Cycle: 70
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.63
Intersection Signal Delay: 7.5 Intersection LOS: A
Intersection Capacity Utilization 70.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: Highland Avenue & Route 75 (Lake Street)



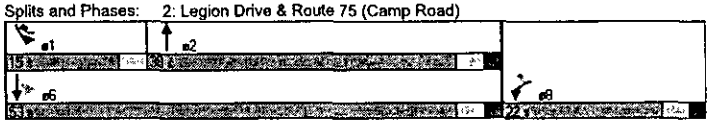
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	250		0	250	
Storage Lanes	1	1		0	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50
Trailing Detector (ft)	0	0	0		0	0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.970			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3433	0	1770	3539
Flt Permitted	0.950				0.268	
Satd. Flow (perm)	1770	1583	3433	0	499	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		207	55			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	35		40			40
Link Distance (ft)	760		863			689
Travel Time (s)	14.8		14.7			11.7
Volume (vph)	231	278	547	139	275	885
Peak Hour Factor	0.84	0.84	0.95	0.95	0.93	0.93
Adj. Flow (vph)	275	331	576	146	296	952
Lane Group Flow (vph)	275	331	722	0	296	952
Turn Type		pm+ov			pm+pt	
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phases	8	1	2		1	6
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	21.0	9.0	28.0		9.0	28.0
Total Split (s)	22.0	15.0	38.0	0.0	15.0	53.0
Total Split (%)	29.3%	20.0%	50.7%	0.0%	20.0%	70.7%
Maximum Green (s)	17.0	12.0	33.0		12.0	48.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	0.0	2.0		0.0	2.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	5.0		5.0			5.0
Flash Dont Walk (s)	11.0		11.0			11.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	13.4	22.5	17.0		30.7	32.6
Actuated g/C Ratio	0.26	0.46	0.35		0.63	0.67
v/c Ratio	0.59	0.39	0.59		0.54	0.40
Control Delay	24.2	5.0	15.7		9.7	6.6
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	24.2	5.0	15.7		9.7	6.6
LOS	C	A	B		A	A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach Delay	13.7		15.7		7.4	
Approach LOS	B		B		A	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 49
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.59
Intersection Signal Delay: 11.2 Intersection LOS: B
Intersection Capacity Utilization 57.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: Legion Drive & Route 75 (Camp Road)



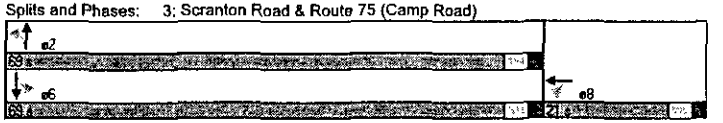
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	275		0	0		0	300		0
Storage Lanes	0		0	1		0	0		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	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	0.95	0.95	0.95	1.00	0.95	0.95
Frt					0.850			0.978				
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	0	0	1770	1583	0	0	3461	0	1770	3539	0
Flt Permitted				0.950						0.339		
Satd. Flow (perm)	0	0	0	1770	1583	0	0	3461	0	631	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					333			58				
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)		35			35			40			40	
Link Distance (ft)		92			373			1152			1898	
Travel Time (s)		1.8			7.3			19.6			32.4	
Volume (vph)	0	0	0	120	0	145	0	616	106	156	880	0
Peak Hour Factor	0.25	0.25	0.25	0.86	0.86	0.86	0.93	0.93	0.93	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	140	0	169	0	662	114	164	926	0
Lane Group Flow (vph)	0	0	0	140	169	0	0	776	0	164	926	0
Turn Type				Perm			Perm			Perm		
Protected Phases					8			2			6	
Permitted Phases				8			2			6		
Detector Phases				8	8		2	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		57.0	57.0		21.0	21.0	
Total Split (s)	0.0	0.0	0.0	21.0	21.0	0.0	69.0	69.0	0.0	69.0	69.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	23.3%	23.3%	0.0%	76.7%	76.7%	0.0%	76.7%	76.7%	0.0%
Maximum Green (s)				16.0	16.0		64.0	64.0		64.0	64.0	
Yellow Time (s)				3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)				2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode				None	None		Min	Min		Min	Min	
Walk Time (s)				5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)				11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)				0	0		0	0		0	0	
Act Effct Green (s)				12.5	12.5			36.6		36.6	36.6	
Actuated g/C Ratio				0.21	0.21			0.64		0.64	0.64	
v/c Ratio				0.38	0.28			0.35		0.41	0.41	
Control Delay				16.8	1.2			4.8		9.0	5.5	
Queue Delay				0.0	0.0			0.0		0.0	0.0	
Total Delay				16.8	1.2			4.8		9.0	5.5	
LOS				B	A			A		A	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay					6.2			4.8			6.0	
Approach LOS					A			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 57.4
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.41
Intersection Signal Delay: 5.9 Intersection LOS: A
Intersection Capacity Utilization 63.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Scranton Road & Route 75 (Camp Road)



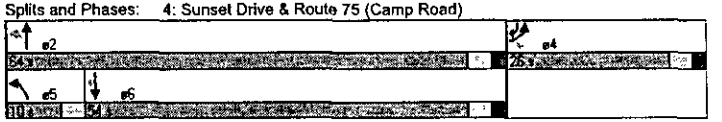
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	200			400
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.192			
Satd. Flow (perm)	1770	1583	358	3539	3539	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		32				343
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			40	40	
Link Distance (ft)	1822			1898	1224	
Travel Time (s)	41.4			32.4	20.9	
Volume (vph)	209	42	107	585	930	312
Peak Hour Factor	0.94	0.94	0.96	0.98	0.91	0.91
Adj. Flow (vph)	222	45	111	609	1022	343
Lane Group Flow (vph)	222	45	111	609	1022	343
Turn Type		Perm	pm+pt			pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	4
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)	26.0	26.0	10.0	64.0	54.0	26.0
Total Split (%)	28.9%	28.9%	11.1%	71.1%	60.0%	28.9%
Maximum Green (s)	21.0	21.0	7.0	59.0	49.0	21.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0	2.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	Max	Max	None
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)	16.7	16.7	60.0	60.2	52.4	74.0
Actuated g/C Ratio	0.20	0.20	0.69	0.71	0.62	0.87
v/c Ratio	0.64	0.13	0.33	0.24	0.47	0.24
Control Delay	39.8	14.1	7.3	5.1	10.9	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.8	14.1	7.3	5.1	10.9	0.6
LOS	D	B	A	A	B	A

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	35.5			5.4	8.3	
Approach LOS	D			A	A	

Intersection Summary

Area Type: *Other*
Cycle Length: 90
Actuated Cycle Length: 84.9
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 10.5 Intersection LOS: B
Intersection Capacity Utilization 53.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 4: Sunset Drive & Route 75 (Camp Road)



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	8	13	6	695	1355	16
Peak Hour Factor	0.75	0.75	0.96	0.96	0.90	0.90
Hourly flow rate (vph)	11	17	6	724	1506	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1768	762	1523			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1768	762	1523			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	86	95	99			
cM capacity (veh/h)	74	348	434			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	28	6	241	241	241	1004	520
Volume Left	11	6	0	0	0	0	0
Volume Right	17	0	0	0	0	0	18
cSH	144	434	1700	1700	1700	1700	1700
Volume to Capacity	0.19	0.01	0.14	0.14	0.14	0.59	0.31
Queue Length 95th (ft)	17	1	0	0	0	0	0
Control Delay (s)	36.0	13.4	0.0	0.0	0.0	0.0	0.0
Lane LOS	E	B					
Approach Delay (s)	36.0	0.1				0.0	
Approach LOS	E						

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	48.0%	ICU Level of Service	A
Analysis Period (min)	15		

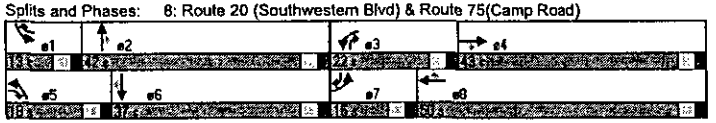
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		550	550		550	195		145	195		350
Storage Lanes	2		1	2		1	2		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			34			15			282			58
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)		50			45			45			45	
Link Distance (ft)		6123			996			1120			631	
Travel Time (s)		83.5			15.1			17.0			9.6	
Volume (vph)	134	370	200	296	737	14	362	436	276	21	750	262
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.98	0.98	0.98	0.96	0.96	0.96
Adj. Flow (vph)	146	402	217	322	801	15	369	445	282	22	781	273
Lane Group Flow (vph)	146	402	217	322	801	15	369	445	282	22	781	273
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phases	7	4	5	3	8	1	5	2	3	1	6	7
Minimum Initial (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
Minimum Split (s)	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0
Total Split (s)	15.0	43.0	18.0	22.0	50.0	13.0	18.0	42.0	22.0	13.0	37.0	15.0
Total Split (%)	12.5%	35.8%	15.0%	18.3%	41.7%	10.8%	15.0%	35.0%	18.3%	10.8%	30.8%	12.5%
Maximum Green (s)	10.0	38.0	13.0	17.0	45.0	8.0	13.0	37.0	17.0	8.0	32.0	10.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-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)	10.3	26.5	50.5	16.4	32.5	44.6	20.1	57.4	77.8	8.0	41.1	55.4
Actuated g/C Ratio	0.09	0.22	0.42	0.14	0.27	0.37	0.17	0.48	0.65	0.07	0.34	0.46
v/c Ratio	0.49	0.51	0.32	0.69	0.84	0.03	0.64	0.26	0.25	0.18	0.64	0.36
Control Delay	59.1	42.9	19.6	57.3	49.3	8.5	52.1	21.7	2.1	55.8	38.0	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.1	42.9	19.6	57.3	49.3	8.5	52.1	21.7	2.1	55.8	38.0	19.2
LOS	E	D	B	E	D	A	D	C	A	E	D	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		39.2			51.0			26.9			33.6	
Approach LOS		D			D			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 37.7 Intersection LOS: D
Intersection Capacity Utilization 68.6% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 8: Route 20 (Southwestern Blvd) & Route 75(Camp Road)



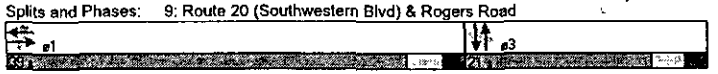
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	300		105	35		0	85		0
Storage Lanes	1		0	1		1	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50	50	50	50	50	50	50	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995				0.850		0.981			0.957	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3522	0	1770	3539	1583	1770	1827	0	1770	1783	0
Flt Permitted	0.248			0.413			0.673			0.685		
Satd. Flow (perm)	462	3522	0	769	3539	1583	1254	1827	0	1276	1783	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10				193		12			34	
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)		50			50			35			35	
Link Distance (ft)		1073			6123			963			918	
Travel Time (s)		14.6			83.5			18.8			17.9	
Volume (vph)	16	521	18	21	877	176	21	85	12	110	76	31
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.87	0.87	0.87	0.81	0.81	0.81
Adj. Flow (vph)	18	573	20	23	964	193	24	98	14	136	94	38
Lane Group Flow (vph)	18	593	0	23	964	193	24	112	0	136	132	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1		1	3			3		
Detector Phases	1	1		1	1	1	3	3		3	3	
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	27.0	27.0		27.0	27.0	27.0	21.0	21.0		21.0	21.0	
Total Split (s)	39.0	39.0	0.0	39.0	39.0	39.0	21.0	21.0	0.0	21.0	21.0	0.0
Total Split (%)	65.0%	65.0%	0.0%	65.0%	65.0%	65.0%	35.0%	35.0%	0.0%	35.0%	35.0%	0.0%
Maximum Green (s)	34.0	34.0		34.0	34.0	34.0	16.0	16.0		16.0	16.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min	Min	None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effct Green (s)	32.7	32.7		32.7	32.7	32.7	12.1	12.1		12.1	12.1	
Actuated g/C Ratio	0.64	0.64		0.64	0.64	0.64	0.23	0.23		0.23	0.23	
v/c Ratio	0.06	0.26		0.05	0.42	0.18	0.08	0.26		0.47	0.30	
Control Delay	5.8	5.2		5.4	6.2	1.5	15.3	14.5		20.5	12.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	5.8	5.2		5.4	6.2	1.5	15.3	14.5		20.5	12.9	
LOS	A	A		A	A	A	B	B		C	B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		5.2			5.4			14.6			16.8	
Approach LOS		A			A			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 50.8
Natural Cycle: 50
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.47
Intersection Signal Delay: 7.3 Intersection LOS: A
Intersection Capacity Utilization 43.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Route 20 (Southwestern Blvd) & Rogers Road



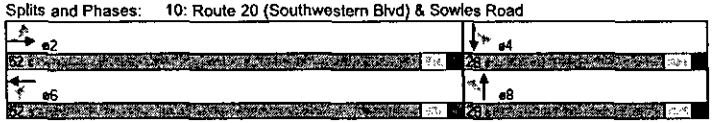
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.985			0.948			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3444	0	1770	3486	0	1770	1766	0	1770	1850	0
Flt Permitted	0.302			0.332			0.556			0.635		
Satd. Flow (perm)	563	3444	0	618	3486	0	1036	1766	0	1183	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		57			25			34			3	
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)		45			45			35			35	
Link Distance (ft)		996			2741			815			936	
Travel Time (s)		15.1			41.5			15.9			18.2	
Volume (vph)	11	568	123	18	698	75	126	83	44	53	149	7
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.86	0.86	0.86	0.79	0.79	0.79
Adj. Flow (vph)	12	611	132	19	735	79	147	97	51	67	189	9
Lane Group Flow (vph)	12	743	0	19	814	0	147	148	0	67	198	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		21.0	21.0		21.0	21.0	
Total Split (s)	52.0	52.0	0.0	52.0	52.0	0.0	28.0	28.0	0.0	28.0	28.0	0.0
Total Split (%)	65.0%	65.0%	0.0%	65.0%	65.0%	0.0%	35.0%	35.0%	0.0%	35.0%	35.0%	0.0%
Maximum Green (s)	47.0	47.0		47.0	47.0		23.0	23.0		23.0	23.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	55.1	55.1		55.1	55.1		16.9	16.9		16.9	16.9	
Actuated g/C Ratio	0.69	0.69		0.69	0.69		0.21	0.21		0.21	0.21	
v/c Ratio	0.03	0.31		0.04	0.34		0.67	0.37		0.27	0.51	
Control Delay	6.1	5.6		6.1	6.1		43.3	21.7		26.9	30.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	6.1	5.6		6.1	6.1		43.3	21.7		26.9	30.7	
LOS	A	A		A	A		D	C		C	C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		5.6			6.1			32.4			29.8	
Approach LOS		A			A			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 53 (66%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 12.4 — Intersection LOS: B
Intersection Capacity Utilization 46.9% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 10: Route 20 (Southwestern Blvd) & Sowles Road



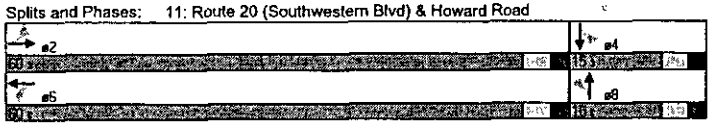
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	100		0
Storage Lanes	1		0	1		0	0		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.978						0.850	
Flt Protected	0.950			0.950				0.950		0.950		
Satd. Flow (prot)	1770	3539	0	1770	3461	0	0	1770	0	1770	1583	0
Flt Permitted	0.293			0.398				0.720		0.755		
Satd. Flow (perm)	546	3539	0	741	3461	0	0	1341	0	1406	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					74						277	
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)		45			45			30			30	
Link Distance (ft)		2741			732			192			400	
Travel Time (s)		41.5			11.1			4.4			9.1	
Volume (vph)	49	612	0	2	708	122	1	0	0	98	0	49
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.25	0.25	0.25	0.88	0.88	0.88
Adj. Flow (vph)	53	658	0	2	787	136	4	0	0	111	0	56
Lane Group Flow (vph)	53	658	0	2	923	0	0	4	0	111	56	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	60.0	60.0	0.0	60.0	60.0	0.0	15.0	15.0	0.0	15.0	15.0	0.0
Total Split (%)	80.0%	80.0%	0.0%	80.0%	80.0%	0.0%	20.0%	20.0%	0.0%	20.0%	20.0%	0.0%
Maximum Green (s)	55.0	55.0		55.0	55.0		10.0	10.0		10.0	10.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	70.4	70.4		70.4	70.4			10.7		10.8	10.8	
Actuated g/C Ratio	0.81	0.81		0.81	0.81			0.12		0.12	0.12	
v/c Ratio	0.12	0.23		0.00	0.33			0.02		0.65	0.13	
Control Delay	3.3	2.7		2.5	2.8			28.0		48.5	0.6	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	3.3	2.7		2.5	2.8			28.0		48.5	0.6	
LOS	A	A		A	A			C		D	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		2.7			2.8			28.0			32.4	
Approach LOS		A			A			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 87.1
Natural Cycle: 45
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 5.6 Intersection LOS: A
Intersection Capacity Utilization 41.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 11: Route 20 (Southwestern Blvd) & Howard Road



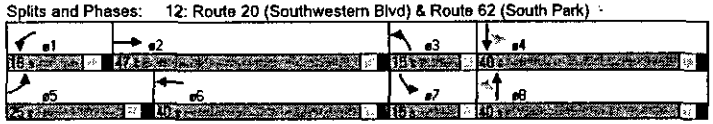
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	250		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.987			0.990			0.965			0.960	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3493	0	1770	3504	0	1770	3415	0	1770	3398	0
Flt Permitted	0.950			0.950			0.119			0.246		
Satd. Flow (perm)	1770	3493	0	1770	3504	0	222	3415	0	458	3398	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			6			34			44	
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)		45			45			45			45	
Link Distance (ft)		1014			518			1425			754	
Travel Time (s)		15.4			7.8			21.6			11.4	
Volume (vph)	178	541	50	129	576	40	75	415	127	42	559	204
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.87	0.87	0.87	0.91	0.91	0.91
Adj. Flow (vph)	191	582	54	139	619	43	86	477	146	46	614	224
Lane Group Flow (vph)	191	636	0	139	662	0	86	623	0	46	838	0
Turn Type	Prot			Prot			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8			4		
Detector Phases	5	2		1	6		3	8		7	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	15.0	38.0		16.0	38.0		9.0	37.0		9.0	37.0	
Total Split (s)	25.0	47.0	0.0	18.0	40.0	0.0	15.0	40.0	0.0	15.0	40.0	0.0
Total Split (%)	20.8%	39.2%	0.0%	15.0%	33.3%	0.0%	12.5%	33.3%	0.0%	12.5%	33.3%	0.0%
Maximum Green (s)	20.0	42.0		13.0	35.0		12.0	35.0		12.0	35.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	2.0		0.0	2.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		Min	Min		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)	15.2	26.5		12.0	23.3		35.3	27.9		33.1	26.8	
Actuated g/C Ratio	0.17	0.29		0.13	0.26		0.39	0.31		0.37	0.30	
v/c Ratio	0.64	0.62		0.59	0.73		0.40	0.58		0.18	0.80	
Control Delay	49.1	30.3		53.5	36.7		23.9	28.0		19.7	35.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	49.1	30.3		53.5	36.7		23.9	28.0		19.7	35.6	
LOS	D	C		D	D		C	C		B	D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		34.6			39.6			27.5			34.8	
Approach LOS		C			D			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 90
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 34.3 Intersection LOS: C
Intersection Capacity Utilization 66.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 12: Route 20 (Southwestern Blvd) & Route 62 (South Park)



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	8	56	45	790	1040	16
Peak Hour Factor	0.85	0.85	0.84	0.84	0.90	0.90
Hourly flow rate (vph)	9	66	54	940	1156	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				1100	745	
pX, platoon unblocked	0.90	0.90	0.90			
vC, conflicting volume	1742	587	1173			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1714	436	1085			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	86	87	91			
cM capacity (veh/h)	67	513	577			

Direction,Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	75	367	627	770	403
Volume Left	9	54	0	0	0
Volume Right	66	0	0	0	18
cSH	279	577	1700	1700	1700
Volume to Capacity	0.27	0.09	0.37	0.45	0.24
Queue Length 95th (ft)	27	8	0	0	0
Control Delay (s)	22.6	2.9	0.0	0.0	0.0
Lane LOS	C	A			
Approach Delay (s)	22.6	1.1		0.0	
Approach LOS	C				

Intersection Summary

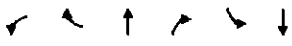
Average Delay 1.2
Intersection Capacity Utilization 66.0% ICU Level of Service C
Analysis Period (min) 15



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	3	0	6	9	0	18	10	776	9	2	1017	3
Peak Hour Factor	0.65	0.65	0.65	0.77	0.77	0.77	0.98	0.98	0.98	0.95	0.95	0.95
Hourly flow rate (vph)	5	0	9	12	0	23	10	792	9	2	1071	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								455				
pX, platoon unblocked	0.95	0.95		0.95	0.95	0.95				0.95		
vC, conflicting volume	1516	1898	537	1366	1895	401	1074			801		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1492	1893	537	1334	1890	321	1074			742		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	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 %	94	100	98	89	100	96	98			100		
cM capacity (veh/h)	77	65	488	103	65	643	645			821		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	14	35	10	528	273	2	714	360
Volume Left	5	12	10	0	0	2	0	0
Volume Right	9	23	0	0	9	0	0	3
cSH	176	234	645	1700	1700	821	1700	1700
Volume to Capacity	0.08	0.15	0.02	0.31	0.16	0.00	0.42	0.21
Queue Length 95th (ft)	6	13	1	0	0	0	0	0
Control Delay (s)	27.2	23.0	10.7	0.0	0.0	9.4	0.0	0.0
Lane LOS	D	C	B			A		
Approach Delay (s)	27.2	23.0	0.1			0.0		
Approach LOS	D	C						

Intersection Summary				
Average Delay	0.7			
Intersection Capacity Utilization	38.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	12	10	1192	18	13	1261
Peak Hour Factor	0.63	0.63	0.96	0.96	0.91	0.91
Hourly flow rate (vph)	19	16	1242	19	14	1386
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1972	630			1260	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1972	630			1260	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	64	96			97	
cM capacity (veh/h)	53	424			547	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	35	828	433	14	693	693
Volume Left	19	0	0	14	0	0
Volume Right	16	0	19	0	0	0
cSH	88	1700	1700	547	1700	1700
Volume to Capacity	0.40	0.49	0.25	0.03	0.41	0.41
Queue Length 95th (ft)	40	0	0	2	0	0
Control Delay (s)	70.6	0.0	0.0	11.8	0.0	0.0
Lane LOS	F			B		
Approach Delay (s)	70.6	0.0		0.1		
Approach LOS	F					

Intersection Summary				
Average Delay	1.0			
Intersection Capacity Utilization	44.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	21	24	1185	38	21	1256
Peak Hour Factor	0.70	0.70	0.94	0.94	0.89	0.89
Hourly flow rate (vph)	30	34	1261	40	24	1411
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						1062
pX, platoon unblocked	*0.62*					
vC, conflicting volume	2034	651			1301	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2041	651			1301	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	21	92			96	
cM capacity (veh/h)	38	411			528	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	64	840	461	24	706	706
Volume Left	30	0	0	24	0	0
Volume Right	34	0	40	0	0	0
cSH	*74*	*1700*	*1700*	*528*	*1700*	*1700*
Volume to Capacity	0.87	0.49	0.27	0.04	0.42	0.42
Queue Length 95th (ft)	109	0	0	3	0	0
Control Delay (s)	165.1	0.0	0.0	12.1	0.0	0.0
Lane LOS	F			B		
Approach Delay (s)	165.1	0.0		0.2		
Approach LOS	F					

Intersection Summary			
Average Delay	3.9		
Intersection Capacity Utilization	44.7%	ICU Level of Service	A
Analysis Period (min)	15		

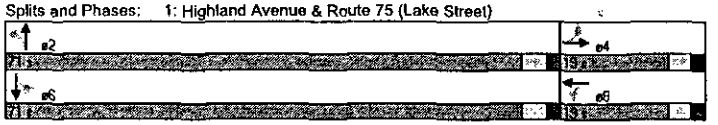
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		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		0.925			0.858			0.993			0.995	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1723	0	1770	1598	0	1770	1850	0	1770	1853	0
Flt Permitted	0.673			0.754			0.414			0.290		
Satd. Flow (perm)	1254	1723	0	1405	1598	0	771	1850	0	540	1853	0
Right Turn on Red		*Yes*			*Yes*			*Yes*			*Yes*	
Satd. Flow (RTOR)		3			95			8			5	
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			30			30	
Link Distance (ft)		200			370			446			287	
Travel Time (s)		4.5			8.4			10.1			6.5	
Volume (vph)	10	2	2	29	4	77	3	648	32	49	509	17
Peak Hour Factor	0.58	0.58	0.58	0.81	0.81	0.81	0.86	0.86	0.86	0.95	0.95	0.95
Adj. Flow (vph)	17	3	3	36	5	95	3	753	37	52	536	18
Lane Group Flow (vph)	17	6	0	36	100	0	3	790	0	52	554	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	22.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	19.0	19.0	0.0	19.0	19.0	0.0	71.0	71.0	0.0	71.0	71.0	0.0
Total Split (%)	21.1%	21.1%	0.0%	21.1%	21.1%	0.0%	78.9%	78.9%	0.0%	78.9%	78.9%	0.0%
Maximum Green (s)	14.0	14.0		14.0	14.0		66.0	66.0		66.0	66.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	9.2	9.2		9.2	9.2		81.0	81.0		81.0	81.0	
Actuated g/C Ratio	0.09	0.09		0.09	0.09		0.84	0.84		0.84	0.84	
v/c Ratio	0.14	0.04		0.27	0.42		0.00	0.51		0.11	0.35	
Control Delay	36.5	27.0		39.6	14.2		2.0	4.1		2.7	3.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	36.5	27.0		39.6	14.2		2.0	4.1		2.7	3.0	
LOS	D	C		D	B		A	A		A	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		34.0			20.9			4.1			2.9	
Approach LOS		C			C			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 95.9
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.51
Intersection Signal Delay: 5.5 Intersection LOS: A
Intersection Capacity Utilization 55.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Highland Avenue & Route 75 (Lake Street)



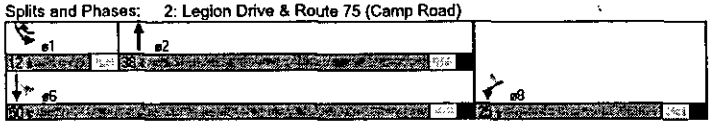
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	250		0	250	
Storage Lanes	1	1		0	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50
Trailing Detector (ft)	0	0	0		0	0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.961			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3401	0	1770	3539
Flt Permitted	0.950				0.247	
Satd. Flow (perm)	1770	1583	3401	0	460	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		211	86			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	35		40			40
Link Distance (ft)	760		863			689
Travel Time (s)	14.8		14.7			11.7
Volume (vph)	173	250	502	176	220	460
Peak Hour Factor	0.95	0.95	0.88	0.88	0.93	0.93
Adj. Flow (vph)	182	263	570	200	237	495
Lane Group Flow (vph)	182	263	770	0	237	495
Turn Type		pm+ov			pm+pt	
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phases	8	1	2		1	6
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	21.0	9.0	28.0		9.0	28.0
Total Split (s)	25.0	12.0	38.0	0.0	12.0	50.0
Total Split (%)	33.3%	16.0%	50.7%	0.0%	16.0%	66.7%
Maximum Green (s)	20.0	9.0	33.0		9.0	45.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	0.0	2.0		0.0	2.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	5.0		5.0			5.0
Flash Dont Walk (s)	11.0		11.0			11.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	11.1	19.0	18.9		30.0	31.2
Actuated g/C Ratio	0.23	0.41	0.41		0.65	0.67
v/c Ratio	0.45	0.34	0.54		0.48	0.21
Control Delay	20.6	4.0	12.4		8.4	4.9
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	20.6	4.0	12.4		8.4	4.9
LOS	C	A	B		A	A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach Delay	10.7		12.4			6.0
Approach LOS	B		B			A

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 46.4
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 9.6 Intersection LOS: A
Intersection Capacity Utilization 51.3% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: Legion Drive & Route 75 (Camp Road)



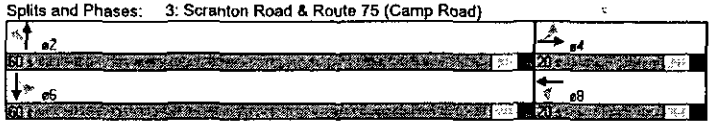
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	275		0	0		0	300		0
Storage Lanes	0		0	1		0	0		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		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	0.95	0.95	0.95	1.00	0.95	0.95
Frt		0.916			0.851			0.984				
Flt Protected		0.982		0.950						0.950		
Satd. Flow (prot)	0	1676	0	1770	1585	0	0	3483	0	1770	3539	0
Flt Permitted		0.922		0.752				0.955		0.357		
Satd. Flow (perm)	0	1573	0	1401	1585	0	0	3326	0	665	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			120			38			1	
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)		35			35			40			40	
Link Distance (ft)		92			373			1152			1898	
Travel Time (s)		1.8			7.3			19.6			32.4	
Volume (vph)	1	0	2	100	1	106	1	633	75	107	520	1
Peak Hour Factor	0.38	0.38	0.38	0.88	0.88	0.88	0.97	0.97	0.97	0.95	0.95	0.95
Adj. Flow (vph)	3	0	5	114	1	120	1	653	77	113	547	1
Lane Group Flow (vph)	0	8	0	114	121	0	0	731	0	113	548	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		57.0	57.0		21.0	21.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	60.0	60.0	0.0	60.0	60.0	0.0
Total Split (%)	25.0%	25.0%	0.0%	25.0%	25.0%	0.0%	75.0%	75.0%	0.0%	75.0%	75.0%	0.0%
Maximum Green (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		11.2		11.3	11.3			27.4		27.4	27.4	
Actuated g/C Ratio		0.23		0.23	0.23			0.60		0.60	0.60	
v/c Ratio		0.02		0.35	0.26			0.37		0.28	0.26	
Control Delay		8.0		13.0	4.5			5.6		8.1	5.3	
Queue Delay		0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay		8.0		13.0	4.5			5.6		8.1	5.3	
LOS		A		B	A			A		A	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		8.0			8.6			5.6			5.7	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 45.9
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.37
Intersection Signal Delay: 6.1 Intersection LOS: A
Intersection Capacity Utilization 56.5% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Scranton Road & Route 75 (Camp Road)



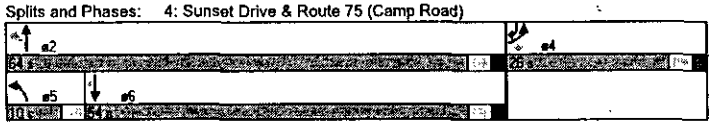
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	200			400
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.380			
Satd. Flow (perm)	1770	1583	708	3539	3539	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		58				122
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			40	40	
Link Distance (ft)	1822			1898	1224	
Travel Time (s)	41.4			32.4	20.9	
Volume (vph)	172	63	74	625	550	121
Peak Hour Factor	0.95	0.95	0.98	0.98	0.99	0.99
Adj. Flow (vph)	181	66	76	638	556	122
Lane Group Flow (vph)	181	66	76	638	556	122
Turn Type		Perm	pm+pt			pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	4
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)	26.0	26.0	10.0	64.0	54.0	26.0
Total Split (%)	28.9%	28.9%	11.1%	71.1%	60.0%	28.9%
Maximum Green (s)	21.0	21.0	7.0	59.0	49.0	21.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0	2.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	Max	Max	None
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)	15.0	15.0	62.4	62.4	54.6	74.4
Actuated g/C Ratio	0.18	0.18	0.72	0.73	0.64	0.87
v/c Ratio	0.58	0.20	0.13	0.25	0.25	0.09
Control Delay	38.9	11.2	4.6	4.5	8.0	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.9	11.2	4.6	4.5	8.0	0.4
LOS	D	B	A	A	A	A

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	31.5			4.5	6.6	
Approach LOS	C			A	A	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 85.4
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 9.5 Intersection LOS: A
Intersection Capacity Utilization 38.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 4: Sunset Drive & Route 75 (Camp Road)



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	15	17	5	648	713	15
Peak Hour Factor	0.73	0.73	0.96	0.96	0.94	0.94
Hourly flow rate (vph)	21	23	5	675	759	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1002	387	774			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1002	387	774			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	91	96	99			
cM capacity (veh/h)	238	611	837			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	44	5	225	225	225	506	269
Volume Left	21	5	0	0	0	0	0
Volume Right	23	0	0	0	0	0	16
cSH	352	837	1700	1700	1700	1700	1700
Volume to Capacity	0.12	0.01	0.13	0.13	0.13	0.30	0.16
Queue Length 95th (ft)	11	0	0	0	0	0	0
Control Delay (s)	16.7	9.3	0.0	0.0	0.0	0.0	0.0
Lane LOS	C	A					
Approach Delay (s)	16.7	0.1				0.0	
Approach LOS	C						

Intersection Summary

Average Delay 0.5
Intersection Capacity Utilization 30.2% ICU Level of Service A
Analysis Period (min) 15

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		550	550		550	195		145	195		350
Storage Lanes	2		1	2		1	2		1	1		1
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	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			213			35			319			108
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)		50			45			45			45	
Link Distance (ft)		6123			996			1120			631	
Travel Time (s)		83.5			15.1			17.0			9.6	
Volume (vph)	111	435	194	271	503	33	240	363	307	32	281	104
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.94	0.94	0.94	0.96	0.96	0.96
Adj. Flow (vph)	122	478	213	285	529	35	255	386	327	33	293	108
Lane Group Flow (vph)	122	478	213	285	529	35	255	386	327	33	293	108
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phases	7	4	5	3	8	1	5	2	3	1	6	7
Minimum Initial (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
Minimum Split (s)	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0
Total Split (s)	16.0	45.0	20.0	23.0	52.0	20.0	20.0	42.0	23.0	20.0	42.0	16.0
Total Split (%)	12.3%	34.6%	15.4%	17.7%	40.0%	15.4%	15.4%	32.3%	17.7%	15.4%	32.3%	12.3%
Maximum Green (s)	11.0	40.0	15.0	18.0	47.0	15.0	15.0	37.0	18.0	15.0	37.0	11.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-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)	10.6	22.5	42.7	16.5	28.4	41.3	16.2	68.2	88.7	8.9	58.8	73.4
Actuated g/C Ratio	0.08	0.17	0.33	0.13	0.22	0.32	0.12	0.52	0.68	0.07	0.45	0.56
v/c Ratio	0.44	0.78	0.32	0.66	0.68	0.07	0.60	0.21	0.28	0.27	0.18	0.11
Control Delay	61.6	60.4	4.6	61.3	51.0	8.3	59.4	18.8	1.8	62.4	23.6	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.6	60.4	4.6	61.3	51.0	8.3	59.4	18.8	1.8	62.4	23.6	3.5
LOS	E	E	A	E	D	A	E	B	A	E	C	A

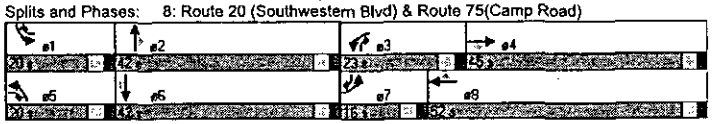
Proposed Camp Road Retail
8: Route 20 (Southwestern Blvd) & Route 75(Camp Road)
SAT Peak - Existing Conditions
6/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		46.0			52.7			23.8			21.5	
Approach LOS		D			D			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 37.3 Intersection LOS: D
Intersection Capacity Utilization 47.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 8: Route 20 (Southwestern Blvd) & Route 75(Camp Road)



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Synchro 6
SRF & Associates

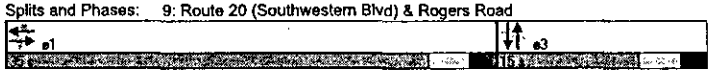
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	300		105	35		0	85		0
Storage Lanes	1		0	1		1	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50	50	50	50		50	50	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996				0.850		0.970			0.963	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3525	0	1770	3539	1583	1770	1807	0	1770	1794	0
Flt Permitted	0.461			0.452			0.681			0.706		
Satd. Flow (perm)	859	3525	0	842	3539	1583	1269	1807	0	1315	1794	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10				123		16			29	
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)		50			50			35			35	
Link Distance (ft)		1073			6123			963			918	
Travel Time (s)		14.6			83.5			18.8			17.9	
Volume (vph)	30	519	14	13	517	123	15	57	14	118	82	27
Peak Hour Factor	0.99	0.99	0.99	1.00	1.00	1.00	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	30	524	14	13	517	123	17	63	16	128	89	29
Lane Group Flow (vph)	30	538	0	13	517	123	17	79	0	128	118	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1		1	3			3		
Detector Phases	1	1		1	1	1	3	3		3	3	
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	27.0	27.0		27.0	27.0	27.0	21.0	21.0		21.0	21.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	35.0	15.0	15.0	0.0	15.0	15.0	0.0
Total Split (%)	70.0%	70.0%	0.0%	70.0%	70.0%	70.0%	30.0%	30.0%	0.0%	30.0%	30.0%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0	30.0	10.0	10.0		10.0	10.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min	Min	None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effct Green (s)	30.0	30.0		30.0	30.0	30.0	12.8	12.8		12.8	12.8	
Actuated g/C Ratio	0.58	0.58		0.58	0.58	0.58	0.24	0.24		0.24	0.24	
v/c Ratio	0.06	0.26		0.03	0.25	0.13	0.06	0.18		0.41	0.26	
Control Delay	5.3	5.1		5.0	5.2	1.7	10.5	9.1		14.3	9.3	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	5.3	5.1		5.0	5.2	1.7	10.5	9.1		14.3	9.3	
LOS	A	A		A	A	A	B	A		B	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		5.1			4.5			9.4			11.9	
Approach LOS		A			A			A			B	

Intersection Summary

Area Type: Other
Cycle Length: 50
Actuated Cycle Length: 51.5
Natural Cycle: 50
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.41
Intersection Signal Delay: 6.2 — Intersection LOS: A
Intersection Capacity Utilization 41.3% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Route 20 (Southwestern Blvd) & Rogers Road



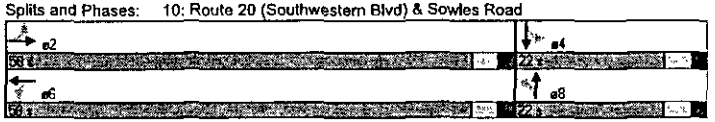
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.874			0.988			0.986			0.960	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3447	0	1770	3497	0	1770	1779	0	1770	1788	0
Flt Permitted	0.406			0.344			0.697			0.687		
Satd. Flow (perm)	756	3447	0	641	3497	0	1298	1779	0	1280	1788	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		69			25			25			21	
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)		45			45			35			35	
Link Distance (ft)		996			2741			815			936	
Travel Time (s)		15.1			41.5			15.9			18.2	
Volume (vph)	20	583	123	12	520	45	117	64	28	31	62	23
Peak Hour Factor	0.94	0.94	0.94	0.92	0.92	0.92	0.84	0.84	0.84	0.91	0.91	0.91
Adj. Flow (vph)	21	620	131	13	565	49	139	76	33	34	68	25
Lane Group Flow (vph)	21	751	0	13	614	0	139	109	0	34	93	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		21.0	21.0		21.0	21.0	
Total Split (s)	58.0	58.0	0.0	58.0	58.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0
Total Split (%)	72.5%	72.5%	0.0%	72.5%	72.5%	0.0%	27.5%	27.5%	0.0%	27.5%	27.5%	0.0%
Maximum Green (s)	53.0	53.0		53.0	53.0		17.0	17.0		17.0	17.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	58.0	58.0		58.0	58.0		14.0	14.0		14.0	14.0	
Actuated g/C Ratio	0.72	0.72		0.72	0.72		0.18	0.18		0.18	0.18	
v/c Ratio	*0.04*	*0.30*		*0.03*	*0.24*		*0.61*	*0.33*		*0.15*	*0.28*	
Control Delay	4.2	4.2		4.2	4.2		41.5	24.0		27.8	23.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	4.2	4.2		4.2	4.2		41.5	24.0		27.8	23.6	
LOS	A	A		A	A		D	C		C	C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		4.2			4.2			33.8			24.8	
Approach LOS		A			A			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 53 (66%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 9.8 Intersection LOS: A
Intersection Capacity Utilization 39.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 10: Route 20 (Southwestern Blvd) & Sowles Road

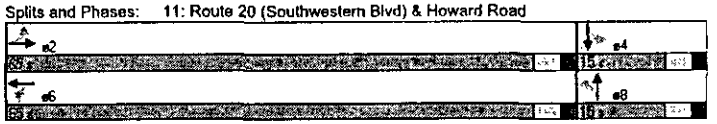


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	100		0
Storage Lanes	1		0	1		0	0		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.980						0.850	
Flt Protected	0.950							0.950		0.950		
Satd. Flow (prot)	1770	3539	0	1863	3468	0	0	1770	0	1770	1583	0
Flt Permitted	0.359							0.728		0.755		
Satd. Flow (perm)	669	3539	0	1863	3468	0	0	1356	0	1406	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						63					361	
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)		45			45			30			30	
Link Distance (ft)		2741			732			192			400	
Travel Time (s)		41.5			11.1			4.4			9.1	
Volume (vph)	38	682	1	0	599	91	1	0	0	97	0	36
Peak Hour Factor	0.89	0.89	0.89	0.92	0.92	0.92	0.25	0.25	0.25	0.81	0.81	0.81
Adj. Flow (vph)	43	766	1	0	651	99	4	0	0	120	0	44
Lane Group Flow (vph)	43	767	0	0	750	0	0	4	0	120	44	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	65.0	65.0	0.0	65.0	65.0	0.0	15.0	15.0	0.0	15.0	15.0	0.0
Total Split (%)	81.3%	81.3%	0.0%	81.3%	81.3%	0.0%	18.8%	18.8%	0.0%	18.8%	18.8%	0.0%
Maximum Green (s)	60.0	60.0		60.0	60.0		10.0	10.0		10.0	10.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	74.8	74.8			74.8			10.7		11.0	11.0	
Actuated g/C Ratio	0.82	0.82			0.82			0.11		0.12	0.12	
v/c Ratio	0.08	0.26			0.26			0.03		0.73	0.09	
Control Delay	2.8	2.7			2.4			30.0		58.6	0.3	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	2.8	2.7			2.4			30.0		58.6	0.3	
LOS	A	A			A			C		E	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		2.7			2.4			30.0			43.0	
Approach LOS		A			A			C			D	

Intersection Summary
Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 91.4
Natural Cycle: 45
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 6.5 Intersection LOS: A
Intersection Capacity Utilization 37.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 11: Route 20 (Southwestern Blvd) & Howard Road



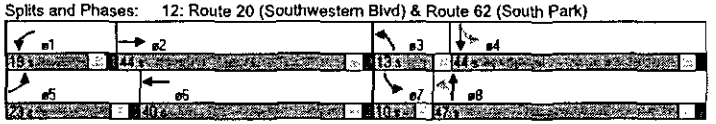
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	250		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.983			0.990			0.960			0.957	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3479	0	1770	3504	0	1770	3398	0	1770	3387	0
Flt Permitted	0.950			0.950			0.293			0.323		
Satd. Flow (perm)	1770	3479	0	1770	3504	0	546	3398	0	602	3387	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			6			48			53	
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)		45			45			45			45	
Link Distance (ft)		1014			518			1425			754	
Travel Time (s)		15.4			7.8			21.6			11.4	
Volume (vph)	128	624	81	99	530	38	54	390	141	50	371	147
Peak Hour Factor	0.88	0.88	0.88	0.94	0.94	0.94	0.88	0.88	0.88	0.93	0.93	0.93
Adj. Flow (vph)	145	709	92	105	564	40	61	443	160	54	399	158
Lane Group Flow (vph)	145	801	0	105	604	0	61	603	0	54	557	0
Turn Type	Prot			Prot			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8			4		
Detector Phases	5	2		1	6		3	8		7	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	15.0	38.0		16.0	38.0		9.0	37.0		9.0	37.0	
Total Split (s)	23.0	44.0	0.0	19.0	40.0	0.0	13.0	47.0	0.0	10.0	44.0	0.0
Total Split (%)	19.2%	36.7%	0.0%	15.8%	33.3%	0.0%	10.8%	39.2%	0.0%	8.3%	36.7%	0.0%
Maximum Green (s)	18.0	39.0		14.0	35.0		10.0	42.0		7.0	39.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	2.0		0.0	2.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		Min	Min		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)	12.4	23.9		10.7	22.2		25.5	19.2		24.2	18.5	
Actuated g/C Ratio	0.16	0.31		0.14	0.29		0.33	0.25		0.32	0.24	
v/c Ratio	0.51	0.73		0.42	0.59		0.21	0.68		0.19	0.65	
Control Delay	39.5	28.1		40.5	26.8		19.7	29.0		19.7	28.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	39.5	28.1		40.5	26.8		19.7	29.0		19.7	28.7	
LOS	D	C		D	C		B	C		B	C	

Proposed Camp Road Retail — SAT Peak - Existing Conditions
12: Route 20 (Southwestern Blvd) & Route 62 (South Park) — 6/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		29.9			28.8			28.1			27.9	
Approach LOS		C			C			C			C	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 76.5	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 28.8	Intersection LOS: C
Intersection Capacity Utilization 57.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Route 20 (Southwestern Blvd) & Route 62 (South Park)



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Synchro 6
SRF & Associates



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	10	40	42	739	615	30
Peak Hour Factor	0.54	0.54	0.96	0.96	0.93	0.93
Hourly flow rate (vph)	19	74	44	770	661	32
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				1100	745	
pX, platoon unblocked						
vC, conflicting volume	1150	347	694			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1150	347	694			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	90	89	95			
cM capacity (veh/h)	182	649	898			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	93	300	513	441	253
Volume Left	19	44	0	0	0
Volume Right	74	0	0	0	32
cSH	429	898	1700	1700	1700
Volume to Capacity	0.22	0.05	0.30	0.26	0.15
Queue Length 95th (ft)	20	4	0	0	0
Control Delay (s)	15.7	1.8	0.0	0.0	0.0
Lane LOS	C	A			
Approach Delay (s)	15.7	0.7		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	3	0	16	19	0	16	13	739	3	6	610	0
Peak Hour Factor	0.67	0.67	0.67	0.72	0.72	0.72	0.85	0.85	0.85	0.87	0.87	0.87
Hourly flow rate (vph)	4	0	24	26	0	22	15	869	4	7	701	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								455				
pX, platoon unblocked	0.95	0.95		0.95	0.95	0.95				0.95		
vC, conflicting volume	1202	1618	351	1290	1617	436	701			873		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1158	1597	351	1250	1595	349	701			810		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	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 %	97	100	96	77	100	96	98			99		
cM capacity (veh/h)	135	97	646	115	98	613	892			769		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	28	49	15	580	293	7	467	234
Volume Left	4	26	15	0	0	7	0	0
Volume Right	24	22	10	0	4	0	0	0
cSH	405	184	892	1700	1700	769	1700	1700
Volume to Capacity	0.07	0.26	0.02	0.34	0.17	0.01	0.27	0.14
Queue Length 95th (ft)	6	25	1	0	0	1	0	0
Control Delay (s)	14.6	31.5	9.1	0.0	0.0	9.7	0.0	0.0
Lane LOS	B	D	A			A		
Approach Delay (s)	14.6	31.5	0.2			0.1		
Approach LOS	B	D						

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	32.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	9	4	985	37	9	820
Peak Hour Factor	0.54	0.54	0.90	0.90	0.91	0.91
Hourly flow rate (vph)	17	7	1094	41	10	901
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1585	568			1136	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1585	568			1136	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	83	98			98	
cM capacity (veh/h)	97	466			611	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	24	730	406	10	451	451
Volume Left	17	0	0	10	0	0
Volume Right	7	0	41	0	0	0
cSH	129	1700	1700	611	1700	1700
Volume to Capacity	0.19	0.43	0.24	0.02	0.27	0.27
Queue Length 95th (ft)	16	0	0	1	0	0
Control Delay (s)	39.3	0.0	0.0	11.0	0.0	0.0
Lane LOS	E			B		
Approach Delay (s)	39.3	0.0		0.1		
Approach LOS	E					

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	38.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	17	21	986	26	19	781
Peak Hour Factor	0.95	0.95	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	18	22	1084	29	21	858
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						1062
pX, platoon unblocked	0.98					
vC, conflicting volume	1589	556			1112	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1561	556			1112	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	82	95			97	
cM capacity (veh/h)	98	474			624	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	40	722	390	21	429	429
Volume Left	18	0	0	21	0	0
Volume Right	22	0	29	0	0	0
cSH	174	1700	1700	624	1700	1700
Volume to Capacity	0.23	0.42	0.23	0.03	0.25	0.25
Queue Length 95th (ft)	21	0	0	3	0	0
Control Delay (s)	31.8	0.0	0.0	11.0	0.0	0.0
Lane LOS	D			B		
Approach Delay (s)	31.8	0.0		0.3		
Approach LOS	D					

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	38.1%	ICU Level of Service	A
Analysis Period (min)	15		

A5

Level of Service Calculations: Background Conditions

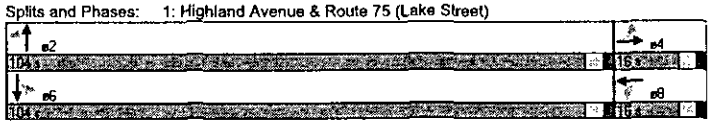
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		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		0.965			0.881			0.994			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1798	0	1770	1641	0	1770	1852	0	1770	1852	0
Flt Permitted	0.676			0.749			0.196			0.357		
Satd. Flow (perm)	1259	1798	0	1395	1641	0	365	1852	0	665	1852	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			58			8			8	
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			30			30	
Link Distance (ft)		200			370			446			287	
Travel Time (s)		4.5			8.4			10.1			6.5	
Volume (vph)	26	6	2	39	12	47	6	597	26	73	946	40
Peak Hour Factor	0.62	0.62	0.62	0.81	0.81	0.81	0.87	0.87	0.87	0.89	0.89	0.89
Adj. Flow (vph)	42	10	3	48	15	58	7	686	30	82	1063	45
Lane Group Flow (vph)	42	13	0	48	73	0	7	716	0	82	1108	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	22.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	16.0	16.0	0.0	16.0	16.0	0.0	104.0	104.0	0.0	104.0	104.0	0.0
Total Split (%)	*13.3%*	*13.3%*	*0.0%*	*13.3%*	*13.3%*	*0.0%*	*86.7%*	*86.7%*	*0.0%*	*86.7%*	*86.7%*	*0.0%*
Maximum Green (s)	11.0	11.0		11.0	11.0		99.0	99.0		99.0	99.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
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)	10.0	10.0		10.0	10.0		104.0	104.0		104.0	104.0	
Actuated g/C Ratio	0.08	0.08		0.08	0.08		0.87	0.87		0.87	0.87	
v/c Ratio	*0.40*	*0.09*		*0.42*	*0.39*		*0.02*	*0.44*		*0.14*	*0.68*	
Control Delay	62.8	43.4		62.2	23.8		1.8	3.1		2.3	6.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	62.8	43.4		62.2	23.8		1.8	3.1		2.3	6.0	
LOS	E	D		E	C		A	A		A	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		58.2			39.0			3.1			5.8	
Approach LOS		E			D			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 119
Natural Cycle: 75
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 8.1 — Intersection LOS: A
Intersection Capacity Utilization 74.4% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: Highland Avenue & Route 75 (Lake Street)



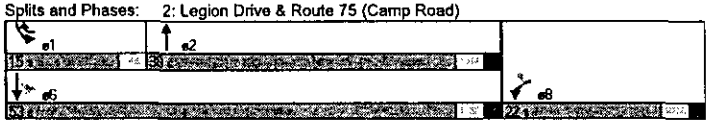
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	250		0	250	
Storage Lanes	1	1		0	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50
Trailing Detector (ft)	0	0	0		0	0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.970			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3433	0	1770	3539
Flt Permitted	0.950				0.244	
Satd. Flow (perm)	1770	1583	3433	0	455	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		181	55			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	35		40			40
Link Distance (ft)	760		863			689
Travel Time (s)	14.8		14.7			11.7
Volume (vph)	249	307	589	150	304	953
Peak Hour Factor	0.84	0.84	0.95	0.95	0.93	0.93
Adj. Flow (vph)	296	365	620	158	327	1025
Lane Group Flow (vph)	296	365	778	0	327	1025
Turn Type		pm+ov			pm+pt	
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phases	8	1	2		1	6
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	21.0	9.0	28.0		9.0	28.0
Total Split (s)	22.0	15.0	38.0	0.0	15.0	53.0
Total Split (%)	29.3%	20.0%	50.7%	0.0%	20.0%	70.7%
Maximum Green (s)	17.0	12.0	33.0		12.0	48.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	0.0	2.0		0.0	2.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	5.0		5.0			5.0
Flash Dont Walk (s)	11.0		11.0			11.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	14.3	27.7	18.4		31.8	31.8
Actuated g/C Ratio	0.26	0.51	0.34		0.58	0.58
v/c Ratio	0.64	0.41	0.65		0.67	0.50
Control Delay	26.5	6.3	17.4		14.1	7.8
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	26.5	6.3	17.4		14.1	7.8
LOS	C	A	B		B	A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach Delay	15.3		17.4			9.3
Approach LOS	B		B			A

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 54.5
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 13.0 — Intersection LOS: B
Intersection Capacity Utilization 61.7% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: Legion Drive & Route 75 (Camp Road)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	275		0	0		0	300		0
Storage Lanes	0		0	1		0	0		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	0.95	0.95	0.95	1.00	0.95	0.95
Frt					0.850			0.978				
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	0	0	1770	1583	0	0	3461	0	1770	3539	0
Flt Permitted				0.950						0.312		
Satd. Flow (perm)	0	0	0	1770	1583	0	0	3461	0	581	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					297			55				
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)		35			35			40			40	
Link Distance (ft)		92			373			1152			1898	
Travel Time (s)		1.8			7.3			19.6			32.4	
Volume (vph)	0	0	0	129	0	164	0	672	114	176	956	0
Peak Hour Factor	0.25	0.25	0.25	0.86	0.86	0.86	0.93	0.93	0.93	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	150	0	191	0	723	123	185	1006	0
Lane Group Flow (vph)	0	0	0	150	191	0	0	846	0	185	1006	0
Turn Type				Perm			Perm			Perm		
Protected Phases					8			2			6	
Permitted Phases				8			2			6		
Detector Phases				8	8		2	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		57.0	57.0		21.0	21.0	
Total Split (s)	0.0	0.0	0.0	21.0	21.0	0.0	69.0	69.0	0.0	69.0	69.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	23.3%	23.3%	0.0%	76.7%	76.7%	0.0%	76.7%	76.7%	0.0%
Maximum Green (s)				16.0	16.0		64.0	64.0		64.0	64.0	
Yellow Time (s)				3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)				2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode				None	None		Min	Min		Min	Min	
Walk Time (s)				5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)				11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)				0	0		0	0		0	0	
Act Effct Green (s)				12.2	12.2			37.6		37.6	37.6	
Actuated g/C Ratio				0.21	0.21			0.66		0.66	0.66	
v/c Ratio				0.41	0.34			0.37		0.48	0.43	
Control Delay				19.8	2.1			4.8		10.8	5.6	
Queue Delay				0.0	0.0			0.0		0.0	0.0	
Total Delay				19.8	2.1			4.8		10.8	5.6	
LOS				B	A			A		B	A	

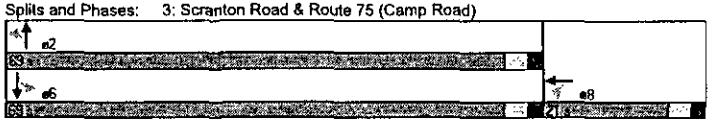
Proposed Camp Road Retail — PM Peak - Option A Background Conditions
3: Scranton Road & Route 75 (Camp Road) — 6/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay					9.9			4.8			6.4	
Approach LOS					A			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 57.2
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.48
Intersection Signal Delay: 6.3 — Intersection LOS: A
Intersection Capacity Utilization 68.8% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 3: Scranton Road & Route 75 (Camp Road)



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Synchro 6
SRF & Associates

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	200			400
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	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.167			
Satd. Flow (perm)	1770	1583	311	3539	3539	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		29				387
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			40	40	
Link Distance (ft)	1822			1898	1224	
Travel Time (s)	41.4			32.4	20.9	
Volume (vph)	241	45	115	646	1018	352
Peak Hour Factor	0.94	0.94	0.96	0.96	0.91	0.91
Adj. Flow (vph)	256	48	120	673	1119	387
Lane Group Flow (vph)	256	48	120	673	1119	387
Turn Type		Perm	pm+pt			pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	4
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)	25.0	25.0	10.0	65.0	55.0	25.0
Total Split (%)	27.8%	27.8%	11.1%	72.2%	61.1%	27.8%
Maximum Green (s)	20.0	20.0	7.0	60.0	50.0	20.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0	2.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	Max	Max	None
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)	17.7	17.7	61.1	61.1	53.3	75.9
Actuated g/C Ratio	0.20	0.20	0.69	0.70	0.61	0.87
v/c Ratio	0.71	0.14	0.39	0.27	0.51	0.27
Control Delay	43.6	16.0	8.5	5.4	11.7	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.6	16.0	8.5	5.4	11.7	0.6
LOS	D	B	A	A	B	A

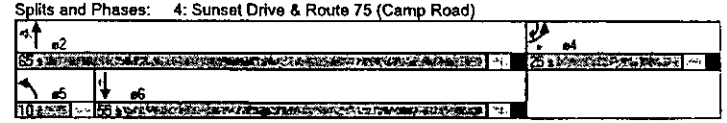
Proposed Camp Road Retail — PM Peak - Option A Background Conditions
4: Sunset Drive & Route 75 (Camp Road) — 6/6/2007

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	39.2			5.9	8.8	
Approach LOS	D			A	A	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 86.8
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 11.5 — Intersection LOS: B
Intersection Capacity Utilization 57.9% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 4: Sunset Drive & Route 75 (Camp Road)



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Synchro 6
SRF & Associates



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	9	14	6	781	1492	17
Peak Hour Factor	0.75	0.75	0.96	0.96	0.90	0.90
Hourly flow rate (vph)	12	19	6	814	1658	19
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1951	838	1677			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1951	838	1677			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	78	94	98			
cM capacity (veh/h)	55	309	378			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	31	6	271	271	271	1105	571
Volume Left	12	6	0	0	0	0	0
Volume Right	19	0	0	0	0	0	19
cSH	111	378	1700	1700	1700	1700	1700
Volume to Capacity	0.28	0.02	0.16	0.16	0.16	0.65	0.34
Queue Length 95th (ft)	26	1	0	0	0	0	0
Control Delay (s)	49.6	14.7	0.0	0.0	0.0	0.0	0.0
Lane LOS	E	B					
Approach Delay (s)	49.6	0.1				0.0	
Approach LOS	E						

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		



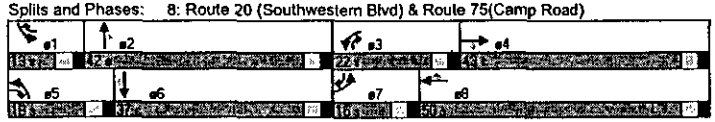
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		550	550		550	195		145	195		350
Storage Lanes	2		1	2		1	2		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			25			16			240			32
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)		50			45			45			45	
Link Distance (ft)		6123			996			1120			631	
Travel Time (s)		83.5			15.1			17.0			9.6	
Volume (vph)	239	469	310	319	876	15	499	470	297	23	808	391
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.98	0.98	0.98	0.96	0.96	0.96
Adj. Flow (vph)	260	510	337	347	952	16	509	480	303	24	842	407
Lane Group Flow (vph)	260	510	337	347	952	16	509	480	303	24	842	407
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phases	7	4	5	3	8	1	5	2	3	1	6	7
Minimum Initial (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
Minimum Split (s)	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0
Total Split (s)	15.0	43.0	18.0	22.0	50.0	13.0	18.0	42.0	22.0	13.0	37.0	15.0
Total Split (%)	12.5%	35.8%	15.0%	18.3%	41.7%	10.8%	15.0%	35.0%	18.3%	10.8%	30.8%	12.5%
Maximum Green (s)	10.0	38.0	13.0	17.0	45.0	8.0	13.0	37.0	17.0	8.0	32.0	10.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-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)	11.0	32.5	58.2	16.8	38.3	50.1	21.7	51.1	71.9	7.9	33.0	48.0
Actuated g/C Ratio	0.09	0.27	0.48	0.14	0.32	0.42	0.18	0.43	0.60	0.07	0.28	0.40
v/c Ratio	0.83	0.53	0.43	0.72	0.84	0.02	0.82	0.32	0.29	0.21	0.87	0.62
Control Delay	75.2	39.0	20.9	58.4	45.4	7.2	59.9	26.0	4.4	56.9	52.0	31.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.2	39.0	20.9	58.4	45.4	7.2	59.9	26.0	4.4	56.9	52.0	31.5
LOS	E	D	C	E	D	A	E	C	A	E	D	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		42.0			48.4			34.3			45.5	
Approach LOS		D			D			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 42.6 — Intersection LOS: D
Intersection Capacity Utilization 80.9% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 8: Route 20 (Southwestern Blvd) & Route 75(Camp Road)



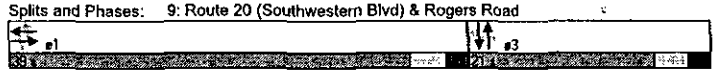
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	300		105	35		0	85		0
Storage Lanes	1		0	1		1	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50	50	50	50		50	50	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996				0.850		0.960			0.955	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3525	0	1770	3539	1583	1770	1788	0	1770	1779	0
Flt Permitted	0.172			0.331			0.631			0.631		
Satd. Flow (perm)	320	3525	0	617	3539	1583	1175	1788	0	1175	1779	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8				244		30			36	
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)		50			50			35			35	
Link Distance (ft)		1073			6123			963			918	
Travel Time (s)		14.6			83.5			18.8			17.9	
Volume (vph)	30	672	19	49	1087	222	23	109	39	138	96	41
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.87	0.87	0.87	0.81	0.81	0.81
Adj. Flow (vph)	33	738	21	54	1195	244	26	125	45	170	119	51
Lane Group Flow (vph)	33	759	0	54	1195	244	26	170	0	170	170	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1		1	3			3		
Detector Phases	1	1		1	1	1	3	3		3	3	
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	27.0	27.0		27.0	27.0	27.0	21.0	21.0		21.0	21.0	
Total Split (s)	39.0	39.0	0.0	39.0	39.0	39.0	21.0	21.0	0.0	21.0	21.0	0.0
Total Split (%)	65.0%	65.0%	0.0%	65.0%	65.0%	65.0%	35.0%	35.0%	0.0%	35.0%	35.0%	0.0%
Maximum Green (s)	34.0	34.0		34.0	34.0	34.0	16.0	16.0		16.0	16.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min	Min	None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effct Green (s)	33.6	33.6		33.6	33.6	33.6	13.0	13.0		13.0	13.0	
Actuated g/C Ratio	0.61	0.61		0.61	0.61	0.61	0.24	0.24		0.24	0.24	
v/c Ratio	0.17	0.35		0.14	0.55	0.23	0.09	0.38		0.61	0.38	
Control Delay	8.3	6.2		6.7	7.9	1.5	16.8	16.2		27.6	15.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	8.3	6.2		6.7	7.9	1.5	16.8	16.2		27.6	15.6	
LOS	A	A		A	A	A	B	B		C	B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		6.3			6.8			16.3			21.6	
Approach LOS		A			A			B			C	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 54.8
Natural Cycle: 50
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 9.1 — Intersection LOS: A
Intersection Capacity Utilization 62.5% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 9: Route 20 (Southwestern Blvd) & Rogers Road



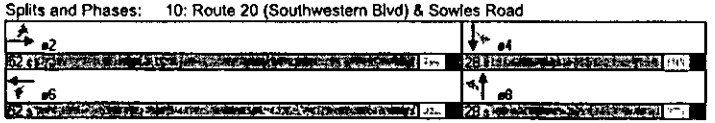
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.986			0.948			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3444	0	1770	3490	0	1770	1766	0	1770	1850	0
Flt Permitted	0.259			0.283			0.532			0.619		
Satd. Flow (perm)	482	3444	0	527	3490	0	991	1766	0	1153	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		59			24			34			3	
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)		45			45			35			35	
Link Distance (ft)		996			2741			815			936	
Travel Time (s)		15.1			41.5			15.9			18.2	
Volume (vph)	12	656	144	19	796	81	147	89	47	57	161	8
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.86	0.86	0.86	0.79	0.79	0.79
Adj. Flow (vph)	13	705	155	20	838	85	171	103	55	72	204	10
Lane Group Flow (vph)	13	860	0	20	923	0	171	158	0	72	214	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		21.0	21.0		21.0	21.0	
Total Split (s)	52.0	52.0	0.0	52.0	52.0	0.0	28.0	28.0	0.0	28.0	28.0	0.0
Total Split (%)	65.0%	65.0%	0.0%	65.0%	65.0%	0.0%	35.0%	35.0%	0.0%	35.0%	35.0%	0.0%
Maximum Green (s)	47.0	47.0		47.0	47.0		23.0	23.0		23.0	23.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	53.4	53.4		53.4	53.4		18.6	18.6		18.6	18.6	
Actuated g/C Ratio	0.67	0.67		0.67	0.67		0.23	0.23		0.23	0.23	
v/c Ratio	0.04	0.37		0.06	0.39		0.74	0.36		0.27	0.50	
Control Delay	6.8	6.7		6.7	7.2		47.1	21.0		25.7	29.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	6.8	6.7		6.7	7.2		47.1	21.0		25.7	29.2	
LOS	A	A		A	A		D	C		C	C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		6.7			7.1			34.6			28.3	
Approach LOS		A			A			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 53 (66%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 13.2 — Intersection LOS: B
Intersection Capacity Utilization 51.7% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 10: Route 20 (Southwestern Blvd) & Sowles Road



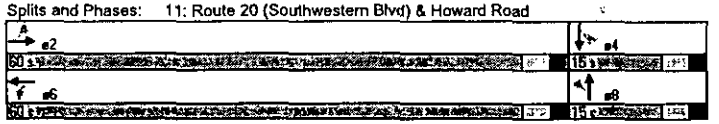
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	100		0
Storage Lanes	1		0	1		0	0		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.979						0.850	
Flt Protected	0.950			0.950				0.950		0.950		
Satd. Flow (prot)	1770	3539	0	1770	3465	0	0	1770	0	1770	1583	0
Flt Permitted	0.255			0.359				0.714		0.755		
Satd. Flow (perm)	475	3539	0	669	3465	0	0	1330	0	1406	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					69						230	
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)		45			45			30			30	
Link Distance (ft)		2741			732			192			400	
Travel Time (s)		41.5			11.1			4.4			9.1	
Volume (vph)	59	697	0	2	802	131	1	0	0	106	0	58
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.25	0.25	0.25	0.88	0.88	0.88
Adj. Flow (vph)	63	749	0	2	891	146	4	0	0	120	0	66
Lane Group Flow (vph)	63	749	0	2	1037	0	0	4	0	120	66	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	60.0	60.0	0.0	60.0	60.0	0.0	15.0	15.0	0.0	15.0	15.0	0.0
Total Split (%)	80.0%	80.0%	0.0%	80.0%	80.0%	0.0%	20.0%	20.0%	0.0%	20.0%	20.0%	0.0%
Maximum Green (s)	55.0	55.0		55.0	55.0		10.0	10.0		10.0	10.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	69.6	69.6		69.6	69.6			10.8		11.0	11.0	
Actuated g/C Ratio	0.81	0.81		0.81	0.81			0.12		0.12	0.12	
v/c Ratio	0.16	0.26		0.00	0.37			0.02		0.69	0.17	
Control Delay	3.8	2.8		2.5	3.1			28.0		51.1	0.9	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	3.8	2.8		2.5	3.1			28.0		51.1	0.9	
LOS	A	A		A	A			C		D	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		2.9			3.1			28.0			33.3	
Approach LOS		A			A			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 86.4
Natural Cycle: 45
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 5.8 — Intersection LOS: A
Intersection Capacity Utilization 45.2% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 11: Route 20 (Southwestern Blvd) & Howard Road



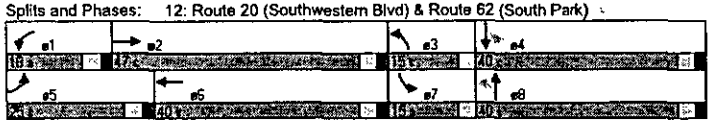
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	250		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.987			0.991			0.965			0.959	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3493	0	1770	3507	0	1770	3415	0	1770	3394	0
Flt Permitted	0.950			0.950			0.111			0.215		
Satd. Flow (perm)	1770	3493	0	1770	3507	0	207	3415	0	400	3394	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			6			34			45	
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)		45			45			45			45	
Link Distance (ft)		1014			518			1425			754	
Travel Time (s)		15.4			7.8			21.6			11.4	
Volume (vph)	196	613	58	139	652	43	85	447	137	45	602	224
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.87	0.87	0.87	0.91	0.91	0.91
Adj. Flow (vph)	211	659	62	149	701	46	98	514	157	49	662	246
Lane Group Flow (vph)	211	721	0	149	747	0	98	671	0	49	908	0
Turn Type	Prot			Prot			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8			4		
Detector Phases	5	2		1	6		3	8		7	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	15.0	38.0		18.0	38.0		9.0	37.0		9.0	37.0	
Total Split (s)	25.0	47.0	0.0	18.0	40.0	0.0	15.0	40.0	0.0	15.0	40.0	0.0
Total Split (%)	20.8%	39.2%	0.0%	15.0%	33.3%	0.0%	12.5%	33.3%	0.0%	12.5%	33.3%	0.0%
Maximum Green (s)	*20.0*	*42.0*		*13.0*	*35.0*		*12.0*	*35.0*		*12.0*	*35.0*	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	2.0		0.0	2.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		Min	Min		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)	16.6	30.9		12.5	26.8		39.3	31.5		36.5	30.1	
Actuated g/C Ratio	0.17	0.31		0.13	0.27		0.40	0.32		0.37	0.31	
v/c Ratio	0.71	0.65		0.66	0.78		0.48	0.60		0.21	0.85	
Control Delay	55.9	32.2		61.0	40.2		27.4	30.3		21.4	40.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	55.9	32.2		61.0	40.2		27.4	30.3		21.4	40.4	
LOS	E	C		E	D		C	C		C	D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		37.6			43.7			30.0			39.5	
Approach LOS		D			D			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 98.4
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 38.0 Intersection LOS: D
Intersection Capacity Utilization 72.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 12: Route 20 (Southwestern Blvd) & Route 62 (South Park)



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	9	60	48	859	1128	17
Peak Hour Factor	0.85	0.85	0.84	0.84	0.90	0.90
Hourly flow rate (vph)	11	71	57	1023	1253	19
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				1100	745	
pX, platoon unblocked	0.90	0.88	0.88			
vC, conflicting volume	1888	636	1272			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1742	458	1177			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	83	85	89			
cM capacity (veh/h)	63	486	521			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	81	398	682	836	437
Volume Left	11	57	0	0	0
Volume Right	71	0	0	0	19
cSH	258	521	1700	1700	1700
Volume to Capacity	0.31	0.11	0.40	0.49	0.26
Queue Length 95th (ft)	32	9	0	0	0
Control Delay (s)	25.2	3.3	0.0	0.0	0.0
Lane LOS	D	A			
Approach Delay (s)	25.2	1.2		0.0	
Approach LOS	D				

Intersection Summary

Average Delay 1.4
Intersection Capacity Utilization 70.4% ICU Level of Service C
Analysis Period (min) 15



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↰	↑↑		↰	↑↑	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	3	0	6	10	0	19	11	852	10	2	1112	3
Peak Hour Factor	0.65	0.65	0.65	0.77	0.77	0.77	0.98	0.98	0.98	0.95	0.95	0.95
Hourly flow rate (vph)	5	0	9	13	0	25	11	869	10	2	1171	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								455				
pX, platoon unblocked	0.94	0.94		0.94	0.94	0.94				0.94		
vC, conflicting volume	1658	2078	587	1496	2075	440	1174			880		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1636	2083	587	1464	2080	341	1174			808		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	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 %	92	100	98	84	100	96	98			100		
cM capacity (veh/h)	59	48	453	81	49	616	591			764		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	14	38	11	580	300	2	780	393
Volume Left	5	13	11	0	0	2	0	0
Volume Right	9	25	0	0	10	0	0	3
cSH	141	188	591	1700	1700	764	1700	1700
Volume to Capacity	0.10	0.20	0.02	0.34	0.18	0.00	0.46	0.23
Queue Length 95th (ft)	8	18	1	0	0	0	0	0
Control Delay (s)	33.4	28.8	11.2	0.0	0.0	9.7	0.0	0.0
Lane LOS	D	D	B			A		
Approach Delay (s)	33.4	28.8	0.1			0.0		
Approach LOS	D	D						

Intersection Summary				
Average Delay	0.8			
Intersection Capacity Utilization	40.8%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			↑↑		↰	↑↑
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	13	11	1357	19	14	1432
Peak Hour Factor	0.63	0.63	0.96	0.96	0.91	0.91
Hourly flow rate (vph)	21	17	1414	20	15	1574
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2241	717			1433	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2241	717			1433	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	40	95			97	
cM capacity (veh/h)	35	372			470	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	38	942	491	15	787	787
Volume Left	21	0	0	15	0	0
Volume Right	17	0	20	0	0	0
cSH	59	1700	1700	470	1700	1700
Volume to Capacity	0.64	0.55	0.29	0.03	0.46	0.46
Queue Length 95th (ft)	67	0	0	3	0	0
Control Delay (s)	141.0	0.0	0.0	12.9	0.0	0.0
Lane LOS	F			B		
Approach Delay (s)	141.0	0.0		0.1		
Approach LOS	F					

Intersection Summary				
Average Delay	1.8			
Intersection Capacity Utilization	49.6%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	23	26	1350	41	23	1427
Peak Hour Factor	0.70	0.70	0.94	0.94	0.89	0.89
Hourly flow rate (vph)	33	37	1436	44	26	1603
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						1062
pX, platoon unblocked	0.78					
vC, conflicting volume	2311	740			1480	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2401	740			1480	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	90			94	
cM capacity (veh/h)	20	359			451	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	70	957	522	26	802	802
Volume Left	33	0	0	26	0	0
Volume Right	37	0	44	0	0	0
cSH	41	1700	1700	451	1700	1700
Volume to Capacity	1.72	0.56	0.31	0.06	0.47	0.47
Queue Length 95th (ft)	182	0	0	5	0	0
Control Delay (s)	565.3	0.0	0.0	13.5	0.0	0.0
Lane LOS	F			B		
Approach Delay (s)	565.3	0.0		0.2		
Approach LOS	F					

Intersection Summary			
Average Delay	12.6		
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		

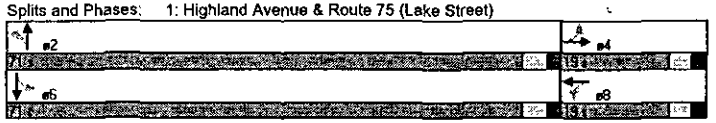
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		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		0.925			0.857			0.993			0.995	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1723	0	1770	1596	0	1770	1850	0	1770	1853	0
Flt Permitted	0.654			0.754			0.391			0.260		
Satd. Flow (perm)	1218	1723	0	1405	1596	0	728	1850	0	484	1853	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			102			8			5	
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			30			30	
Link Distance (ft)		200			370			446			287	
Travel Time (s)		4.5			8.4			10.1			6.5	
Volume (vph)	11	2	2	31	4	83	3	698	34	53	548	18
Peak Hour Factor	0.58	0.58	0.58	0.81	0.81	0.81	0.86	0.86	0.86	0.95	0.95	0.95
Adj. Flow (vph)	19	3	3	38	5	102	3	812	40	56	577	19
Lane Group Flow (vph)	19	6	0	38	107	0	3	852	0	56	596	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	22.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	19.0	19.0	0.0	19.0	19.0	0.0	71.0	71.0	0.0	71.0	71.0	0.0
Total Split (%)	21.1%	21.1%	0.0%	21.1%	21.1%	0.0%	78.9%	78.9%	0.0%	78.9%	78.9%	0.0%
Maximum Green (s)	14.0	14.0		14.0	14.0		66.0	66.0		66.0	66.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	9.3	9.3		9.3	9.3		80.2	80.2		80.2	80.2	
Actuated g/C Ratio	0.10	0.10		0.10	0.10		0.84	0.84		0.84	0.84	
v/c Ratio	0.16	0.04		0.28	0.44		0.00	0.55		0.14	0.38	
Control Delay	37.0	27.0		39.7	14.0		2.0	4.6		3.0	3.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	37.0	27.0		39.7	14.0		2.0	4.6		3.0	3.2	
LOS	D	C		D	B		A	A		A	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		34.6			20.7			4.5			3.2	
Approach LOS		C			C			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 95.2
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.55
Intersection Signal Delay: 5.8 Intersection LOS: A
Intersection Capacity Utilization 59.1% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Highland Avenue & Route 75 (Lake Street)



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	250		0	250	
Storage Lanes	1	1		0	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
Trailing Detector (ft)	0	0	0		0	0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		*0.850*	*0.961*			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3401	0	1770	3539
Flt Permitted	0.950				0.221	
Satd. Flow (perm)	1770	1583	3401	0	412	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		184	86			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	35		40			40
Link Distance (ft)	760		863			689
Travel Time (s)	14.8		14.7			11.7
Volume (vph)	186	280	541	190	248	496
Peak Hour Factor	0.95	0.95	0.88	0.88	0.93	0.93
Adj. Flow (vph)	196	295	615	216	267	533
Lane Group Flow (vph)	196	295	831	0	267	533
Turn Type		pm+ov			pm+pt	
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phases	8	1	2		1	6
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	21.0	9.0	28.0		9.0	28.0
Total Split (s)	25.0	12.0	38.0	0.0	12.0	50.0
Total Split (%)	33.3%	16.0%	50.7%	0.0%	16.0%	66.7%
Maximum Green (s)	20.0	9.0	33.0		9.0	45.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	0.0	2.0		0.0	2.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	*None*	*None*	*Min*		*None*	*Min*
Walk Time (s)	5.0		5.0			5.0
Flash Dont Walk (s)	11.0		11.0			11.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	11.7	19.7	19.5		31.3	32.7
Actuated g/C Ratio	0.23	0.41	0.41		0.65	0.68
v/c Ratio	0.47	0.39	0.58		0.56	0.22
Control Delay	*21.9*	*5.7*	*13.1*		*10.4*	*5.0*
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	21.9	5.7	13.1		10.4	5.0
LOS	C	A	B		B	A

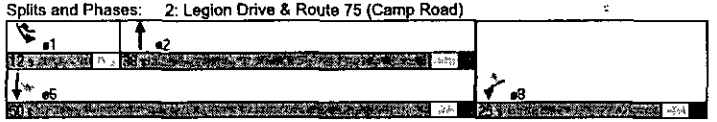


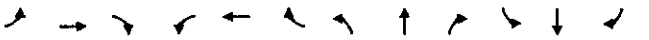
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach Delay	12.2		13.1			6.8
Approach LOS	B		B			A

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 48.1
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 10.5 — Intersection LOS: B
Intersection Capacity Utilization 55.1% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: Legion Drive & Route 75 (Camp Road)





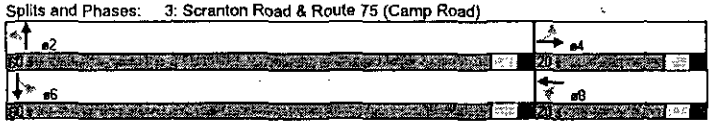
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	275		0	0		0	300		0
Storage Lanes	0		0	1		0	0		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		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	0.95	0.95	0.95	1.00	0.95	0.95
Frt		0.916			0.851			0.984				
Flt Protected		0.982			0.950						0.950	
Satd. Flow (prot)	0	1676	0	1770	1585	0	0	3483	0	1770	3539	0
Flt Permitted		0.918			0.752			0.955			0.329	
Satd. Flow (perm)	0	1568	0	1401	1585	0	0	3326	0	613	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			142			37				
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)		35			35			40			40	
Link Distance (ft)		92			373			1152			1898	
Travel Time (s)		1.8			7.3			19.6			32.4	
Volume (vph)	1	0	2	108	1	125	1	693	81	126	571	1
Peak Hour Factor	0.38	0.38	0.38	0.88	0.88	0.88	0.97	0.97	0.97	0.95	0.95	0.95
Adj. Flow (vph)	3	0	5	123	1	142	1	714	84	133	601	1
Lane Group Flow (vph)	0	8	0	123	143	0	0	799	0	133	602	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		57.0	57.0		21.0	21.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	60.0	60.0	0.0	60.0	60.0	0.0
Total Split (%)	25.0%	25.0%	0.0%	25.0%	25.0%	0.0%	75.0%	75.0%	0.0%	75.0%	75.0%	0.0%
Maximum Green (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		12.4			12.5	12.5		32.0			32.0	32.0
Actuated g/C Ratio		0.23			0.23	0.23		0.61			0.61	0.61
v/c Ratio		0.02			0.38	0.30		0.39			0.36	0.28
Control Delay		9.7			15.3	5.0		5.7			9.0	5.2
Queue Delay		0.0			0.0	0.0		0.0			0.0	0.0
Total Delay		9.7			15.3	5.0		5.7			9.0	5.2
LOS		A			B	A		A			A	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		9.7			9.7			5.7			5.9	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 52.4
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.39
Intersection Signal Delay: 6.4 Intersection LOS: A
Intersection Capacity Utilization 60.2% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Scranton Road & Route 75 (Camp Road)



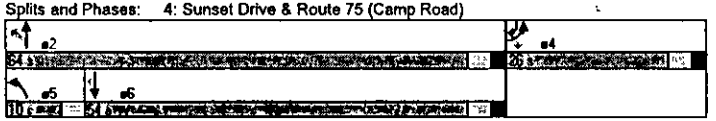
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	200			400
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		*0.850*				*0.850*
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.348			
Satd. Flow (perm)	1770	1583	648	3539	3539	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		52				154
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			40	40	
Link Distance (ft)	1822			1898	1224	
Travel Time (s)	*41.4*			*32.4*	*20.9*	
Volume (vph)	207	68	80	695	615	152
Peak Hour Factor	0.95	0.95	0.98	0.98	0.99	0.99
Adj. Flow (vph)	218	72	82	709	621	154
Lane Group Flow (vph)	218	72	82	709	621	154
Turn Type		Perm	pm+pt			pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	4
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)	26.0	26.0	10.0	64.0	54.0	26.0
Total Split (%)	28.9%	28.9%	11.1%	71.1%	60.0%	28.9%
Maximum Green (s)	21.0	21.0	7.0	59.0	49.0	21.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0	2.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	Max	Max	None
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)	16.4	16.4	61.2	61.2	53.5	74.7
Actuated g/C Ratio	*0.19*	*0.19*	*0.70*	*0.71*	*0.62*	*0.87*
v/c Ratio	0.64	0.21	0.16	0.28	0.28	0.11
Control Delay	40.4	13.5	5.2	5.1	8.8	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.4	13.5	5.2	5.1	8.8	0.4
LOS	D	B	A	A	A	A

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	33.7			5.1	7.1	
Approach LOS	C			A	A	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 85.6
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 10.4 — Intersection LOS: B
Intersection Capacity Utilization 42.9% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 4: Sunset Drive & Route 75 (Camp Road)



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	16	18	5	742	812	16
Peak Hour Factor	0.73	0.73	0.96	0.96	0.94	0.94
Hourly flow rate (vph)	22	25	5	773	864	17
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1140	440	881			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1140	440	881			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	89	96	99			
cM capacity (veh/h)	193	564	763			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	47	5	258	258	258	576	305
Volume Left	22	5	0	0	0	0	0
Volume Right	25	0	0	0	0	0	17
cSH	296	763	1700	1700	1700	1700	1700
Volume to Capacity	0.16	0.01	0.15	0.15	0.15	0.34	0.18
Queue Length 95th (ft)	14	1	0	0	0	0	0
Control Delay (s)	19.4	9.7	0.0	0.0	0.0	0.0	0.0
Lane LOS	C	A					
Approach Delay (s)	19.4	0.1			0.0		
Approach LOS	C						

Intersection Summary

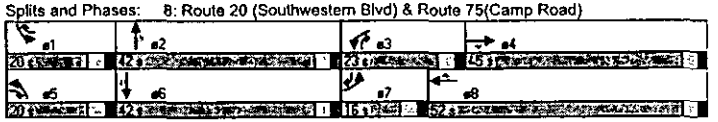
Average Delay 0.6
Intersection Capacity Utilization 33.0% — ICU Level of Service A
Analysis Period (min) 15

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		550	550		550	195		145	195		350
Storage Lanes	2		1	2		1	2		1	1		1
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	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			215			38			264			71
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)		50			45			45			45	
Link Distance (ft)		6123			996			1120			631	
Travel Time (s)		83.5			15.1			17.0			9.6	
Volume (vph)	256	567	345	292	652	36	405	391	331	34	303	258
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.94	0.94	0.94	0.96	0.96	0.96
Adj. Flow (vph)	281	623	379	307	686	38	431	416	352	35	316	269
Lane Group Flow (vph)	281	623	379	307	686	38	431	416	352	35	316	269
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phases	7	4	5	3	8	1	5	2	3	1	6	7
Minimum Initial (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
Minimum Split (s)	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0
Total Split (s)	16.0	45.0	20.0	23.0	52.0	20.0	20.0	42.0	23.0	20.0	42.0	16.0
Total Split (%)	12.3%	34.6%	15.4%	17.7%	40.0%	15.4%	15.4%	32.3%	17.7%	15.4%	32.3%	12.3%
Maximum Green (s)	11.0	40.0	15.0	18.0	47.0	15.0	15.0	37.0	18.0	15.0	37.0	11.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None	C-Max	None	None	C-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)	12.0	28.2	57.4	17.2	33.4	46.4	25.2	61.7	82.9	9.0	43.4	59.4
Actuated g/C Ratio	0.09	0.22	0.44	0.13	0.26	0.36	0.19	0.47	0.64	0.07	0.33	0.46
v/c Ratio	0.89	0.81	0.46	0.68	0.75	0.06	0.65	0.25	0.32	0.29	0.27	0.35
Control Delay	86.8	56.9	11.7	61.5	49.6	6.7	53.8	23.1	4.3	62.7	33.8	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.8	56.9	11.7	61.5	49.6	6.7	53.8	23.1	4.3	62.7	33.8	19.2
LOS	F	E	B	E	D	A	D	C	A	E	C	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		50.1			51.5			28.6			29.1	
Approach LOS		D			D			C			C	

Intersection Summary	
Area Type:	Other
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 41.1	Intersection LOS: D
Intersection Capacity Utilization 58.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 8: Route 20 (Southwestern Blvd) & Route 75(Camp Road)



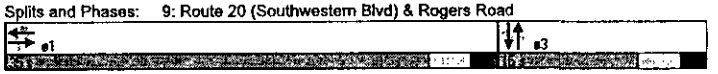
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	300		105	35		0	85		0
Storage Lanes	1		0	1		1	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50	50	50	50		50	50	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997				0.850			0.940			0.961
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3529	0	1770	3539	1583	1770	1751	0	1770	1790	0
Flt Permitted	0.364			0.352			0.657			0.660		
Satd. Flow (perm)	678	3529	0	656	3539	1583	1224	1751	0	1229	1790	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7				159		61			32	
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)		50			50			35			35	
Link Distance (ft)		1073			6123			963			918	
Travel Time (s)		14.6			83.5			18.8			17.9	
Volume (vph)	43	726	15	52	723	159	16	83	55	149	108	38
Peak Hour Factor	0.99	0.99	0.99	1.00	1.00	1.00	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	43	733	15	52	723	159	18	92	61	162	117	41
Lane Group Flow (vph)	43	748	0	52	723	159	18	153	0	162	158	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1		1	3			3		
Detector Phases	1	1		1	1	1	3	3		3	3	
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	27.0	27.0		27.0	27.0	27.0	21.0	21.0		21.0	21.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	35.0	15.0	15.0	0.0	15.0	15.0	0.0
Total Split (%)	70.0%	70.0%	0.0%	70.0%	70.0%	70.0%	30.0%	30.0%	0.0%	30.0%	30.0%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0	30.0	10.0	10.0		10.0	10.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min	Min	None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effct Green (s)	25.1	25.1		25.1	25.1	25.1	10.4	10.4		10.4	10.4	
Actuated g/C Ratio	0.57	0.57		0.57	0.57	0.57	0.24	0.24		0.24	0.24	
v/c Ratio	0.11	0.37		0.14	0.36	0.16	0.06	0.33		0.55	0.35	
Control Delay	5.2	5.6		5.5	5.6	1.4	14.4	11.2		23.6	13.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	5.2	5.6		5.5	5.6	1.4	14.4	11.2		23.6	13.5	
LOS	A	A		A	A	A	B	B		C	B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		5.6			4.9			11.6			18.7	
Approach LOS		A			A			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 50
Actuated Cycle Length: 43.8
Natural Cycle: 50
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay: 7.6 — Intersection LOS: A
Intersection Capacity Utilization 53.2% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Route 20 (Southwestern Blvd) & Rogers Road

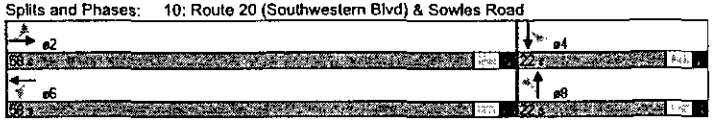


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.989			0.954			0.960	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3444	0	1770	3500	0	1770	1777	0	1770	1788	0
Flt Permitted	0.351			0.288			0.692			0.668		
Satd. Flow (perm)	654	3444	0	536	3500	0	1289	1777	0	1244	1788	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		71			21			25			21	
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)		45			45			35			35	
Link Distance (ft)		996			2741			815			936	
Travel Time (s)		15.1			41.5			15.9			18.2	
Volume (vph)	22	690	149	13	628	48	144	69	30	33	67	25
Peak Hour Factor	0.94	0.94	0.94	0.92	0.92	0.92	0.84	0.84	0.84	0.91	0.91	0.91
Adj. Flow (vph)	23	734	159	14	683	52	171	82	36	36	74	27
Lane Group Flow (vph)	23	893	0	14	735	0	171	118	0	36	101	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		21.0	21.0		21.0	21.0	
Total Split (s)	58.0	58.0	0.0	58.0	58.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0
Total Split (%)	72.5%	72.5%	0.0%	72.5%	72.5%	0.0%	27.5%	27.5%	0.0%	27.5%	27.5%	0.0%
Maximum Green (s)	53.0	53.0		53.0	53.0		17.0	17.0		17.0	17.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	56.8	56.8		56.8	56.8		15.2	15.2		15.2	15.2	
Actuated g/C Ratio	0.71	0.71		0.71	0.71		0.19	0.19		0.19	0.19	
v/c Ratio	0.05	0.36		0.04	0.30		0.70	0.33		0.15	0.28	
Control Delay	4.6	4.9		4.6	4.8		45.3	23.5		27.2	23.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	4.6	4.9		4.6	4.8		45.3	23.5		27.2	23.2	
LOS	A	A		A	A		D	C		C	C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		4.9			4.8			36.4			24.3	
Approach LOS		A			A			D			C	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 53 (66%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 10.5	Intersection LOS: B
Intersection Capacity Utilization 45.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 10: Route 20 (Southwestern Blvd) & Sowles Road



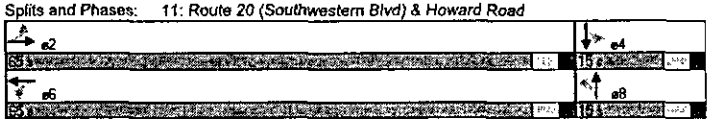
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	100		0
Storage Lanes	1		0	1		0	0		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.982						0.850	
Flt Protected	0.950							0.950		0.950		
Satd. Flow (prot)	1770	3539	0	1863	3476	0	0	1770	0	1770	1583	0
Flt Permitted	0.311							0.720		0.755		
Satd. Flow (perm)	579	3539	0	1863	3476	0	0	1341	0	1406	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					57						295	
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)		45			45			30			30	
Link Distance (ft)		2741			732			192			400	
Travel Time (s)		41.5			11.1			4.4			9.1	
Volume (vph)	49	789	1	0	706	98	1	0	0	104	0	46
Peak Hour Factor	0.89	0.89	0.89	0.92	0.92	0.92	0.25	0.25	0.25	0.81	0.81	0.81
Adj. Flow (vph)	55	887	1	0	767	107	4	0	0	128	0	57
Lane Group Flow (vph)	55	888	0	0	874	0	0	4	0	128	57	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	65.0	65.0	0.0	65.0	65.0	0.0	15.0	15.0	0.0	15.0	15.0	0.0
Total Split (%)	81.3%	81.3%	0.0%	81.3%	81.3%	0.0%	18.8%	18.8%	0.0%	18.8%	18.8%	0.0%
Maximum Green (s)	60.0	60.0		60.0	60.0		10.0	10.0		10.0	10.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	71.3	71.3			71.3			10.9		10.9	10.9	
Actuated g/C Ratio	0.79	0.79			0.79			0.12		0.12	0.12	
v/c Ratio	0.12	0.32			0.32			0.02		0.75	0.13	
Control Delay	3.1	3.1			2.9			30.0		61.0	0.6	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	3.1	3.1			2.9			30.0		61.0	0.6	
LOS	A	A			A			C		E	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		3.1			2.9			30.0			42.4	
Approach LOS		A			A			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 90.4
Natural Cycle: 45
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 6.7 Intersection LOS: A
Intersection Capacity Utilization 41.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 11: Route 20 (Southwestern Blvd) & Howard Road

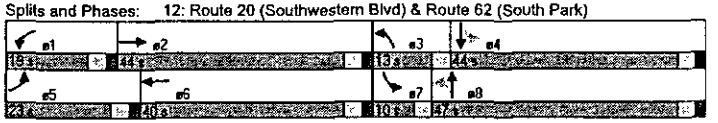


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	250		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.983			0.991			0.960			0.956	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3479	0	1770	3507	0	1770	3398	0	1770	3383	0
Flt Permitted	0.950			0.950			0.263			0.293		
Satd. Flow (perm)	1770	3479	0	1770	3507	0	490	3398	0	545	3383	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			6			48			55	
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)		45			45			45			45	
Link Distance (ft)		1014			518			1425			754	
Travel Time (s)		15.4			7.8			21.6			11.4	
Volume (vph)	144	714	93	107	620	41	64	420	152	54	400	164
Peak Hour Factor	0.88	0.88	0.88	0.94	0.94	0.94	0.88	0.88	0.88	0.93	0.93	0.93
Adj. Flow (vph)	164	811	106	114	660	44	73	477	173	58	430	176
Lane Group Flow (vph)	164	917	0	114	704	0	73	650	0	58	606	0
Turn Type	Prot			Prot			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8			4		
Detector Phases	5	2		1	6		3	8		7	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	15.0	38.0		16.0	38.0		9.0	37.0		9.0	37.0	
Total Split (s)	23.0	44.0	0.0	19.0	40.0	0.0	13.0	47.0	0.0	10.0	44.0	0.0
Total Split (%)	19.2%	36.7%	0.0%	15.8%	33.3%	0.0%	10.8%	39.2%	0.0%	8.3%	36.7%	0.0%
Maximum Green (s)	18.0	39.0		14.0	35.0		10.0	42.0		7.0	39.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	2.0		0.0	2.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		Min	Min		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)	13.5	28.0		11.3	25.8		28.4	21.6		26.3	20.6	
Actuated g/C Ratio	0.16	0.33		0.13	0.31		0.34	0.26		0.31	0.25	
v/c Ratio	0.57	0.78		0.48	0.65		0.27	0.71		0.23	0.69	
Control Delay	44.8	30.9		45.8	29.2		22.2	31.8		21.9	32.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	44.8	30.9		45.8	29.2		22.2	31.8		21.9	32.0	
LOS	D	C		D	C		C	C		C	C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		33.0			31.5			30.8			31.1	
Approach LOS		C			C			C			C	

Intersection Summary	
Area Type:	*Other*
Cycle Length: 120	
Actuated Cycle Length: 83.8	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 31.8	Intersection LOS: C
Intersection Capacity Utilization 61.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Route 20 (Southwestern Blvd) & Route 62 (South Park)



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	11	43	45	807	674	32
Peak Hour Factor	0.54	0.54	0.96	0.96	0.93	0.93
Hourly flow rate (vph)	20	80	47	841	725	34
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				1100	745	
pX, platoon unblocked	1.00	1.00	1.00			
vC, conflicting volume	1256	380	759			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1255	378	758			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	87	87	94			
cM capacity (veh/h)	154	619	848			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	100	327	560	483	276
Volume Left	20	47	0	0	0
Volume Right	80	0	0	0	34
cSH	384	848	1700	1700	1700
Volume to Capacity	0.26	0.06	0.33	0.28	0.16
Queue Length 95th (ft)	26	4	0	0	0
Control Delay (s)	17.7	1.9	0.0	0.0	0.0
Lane LOS	C	A			
Approach Delay (s)	17.7	0.7		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	3	0	17	20	0	17	14	818	3	6	679	0
Peak Hour Factor	0.67	0.67	0.67	0.72	0.72	0.72	0.85	0.85	0.85	0.87	0.87	0.87
Hourly flow rate (vph)	4	0	25	28	0	24	16	962	4	7	780	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								455				
pX, platoon unblocked	0.93	0.93		0.93	0.93	0.93				0.93		
vC, conflicting volume	1332	1793	390	1426	1791	483	780			966		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1280	1777	390	1382	1775	365	780			886		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	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 %	96	100	96	69	100	96	98			99		
cM capacity (veh/h)	107	74	608	90	74	586	833			705		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	30	51	16	642	324	7	520	260
Volume Left	4	28	16	0	0	7	0	0
Volume Right	25	24	0	0	4	0	0	0
cSH	357	147	833	1700	1700	705	1700	1700
Volume to Capacity	0.08	0.35	0.02	0.38	0.19	0.01	0.31	0.15
Queue Length 95th (ft)	7	36	2	0	0	1	0	0
Control Delay (s)	16.0	42.2	9.4	0.0	0.0	10.2	0.0	0.0
Lane LOS	C	E	A			B		
Approach Delay (s)	16.0	42.2	0.2			0.1		
Approach LOS	C	E						

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	10	4	1176	40	10	992
Peak Hour Factor	0.54	0.54	0.90	0.90	0.91	0.91
Hourly flow rate (vph)	19	7	1307	44	11	1090
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1896	676			1351	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1896	676			1351	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	69	98			98	
cM capacity (veh/h)	60	396			505	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	26	871	480	11	545	545
Volume Left	19	0	0	11	0	0
Volume Right	7	0	44	0	0	0
cSH	79	1700	1700	505	1700	1700
Volume to Capacity	0.33	0.51	0.28	0.02	0.32	0.32
Queue Length 95th (ft)	31	0	0	2	0	0
Control Delay (s)	71.2	0.0	0.0	12.3	0.0	0.0
Lane LOS	F			B		
Approach Delay (s)	71.2	0.0		0.1		
Approach LOS	F					

Intersection Summary				
Average Delay	0.8			
Intersection Capacity Utilization	43.8%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	18	23	1177	28	20	950
Peak Hour Factor	0.95	0.95	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	19	24	1293	31	22	1044
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						1062
pX, platoon unblocked	0.96					
vC, conflicting volume	1875	662			1324	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1869	662			1324	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	68	94			96	
cM capacity (veh/h)	59	404			518	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	43	862	462	22	522	522
Volume Left	19	0	0	22	0	0
Volume Right	24	0	31	0	0	0
cSH	113	1700	1700	518	1700	1700
Volume to Capacity	0.38	0.51	0.27	0.04	0.31	0.31
Queue Length 95th (ft)	39	0	0	3	0	0
Control Delay (s)	55.5	0.0	0.0	12.3	0.0	0.0
Lane LOS	F			B		
Approach Delay (s)	55.5	0.0		0.3		
Approach LOS	F					

Intersection Summary				
Average Delay	1.1			
Intersection Capacity Utilization	43.4%	ICU Level of Service		A
Analysis Period (min)	15			

A6

Level of Service Calculations: Full Development Conditions

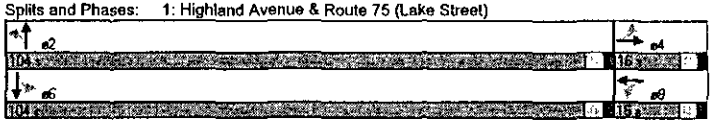
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		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		0.965			0.869			0.994			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1798	0	1770	1619	0	1770	1852	0	1770	1852	0
Flt Permitted	0.469			0.749			0.159			0.319		
Satd. Flow (perm)	874	1798	0	1395	1619	0	296	1852	0	594	1852	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			105			7			7	
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			30			30	
Link Distance (ft)		200			370			446			287	
Travel Time (s)		4.5			8.4			10.1			6.5	
Volume (vph)	26	6	2	39	12	85	6	672	26	114	1029	40
Peak Hour Factor	0.62	0.62	0.62	0.81	0.81	0.81	0.87	0.87	0.87	0.89	0.89	0.89
Adj. Flow (vph)	42	10	3	48	15	105	7	772	30	128	1156	45
Lane Group Flow (vph)	42	13	0	48	120	0	7	802	0	128	1201	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	22.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	16.0	16.0	0.0	16.0	16.0	0.0	104.0	104.0	0.0	104.0	104.0	0.0
Total Split (%)	13.3%	13.3%	0.0%	13.3%	13.3%	0.0%	86.7%	86.7%	0.0%	86.7%	86.7%	0.0%
Maximum Green (s)	11.0	11.0		11.0	11.0		99.0	99.0		99.0	99.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
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)	10.4	10.4		10.4	10.4		100.0	100.0		100.0	100.0	
Actuated g/C Ratio	0.09	0.09		0.09	0.09		0.84	0.84		0.84	0.84	
v/c Ratio	0.55	0.08		0.39	0.51		0.03	0.51		0.25	0.77	
Control Delay	78.2	42.6		60.5	20.6		2.0	3.9		3.4	8.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	78.2	42.6		60.5	20.6		2.0	3.9		3.4	8.5	
LOS	E	D		E	C		A	A		A	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		69.8			32.0			3.9			8.0	
Approach LOS		E			C			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 118.4
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 9.7 — Intersection LOS: A
Intersection Capacity Utilization 78.7% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: Highland Avenue & Route 75 (Lake Street)



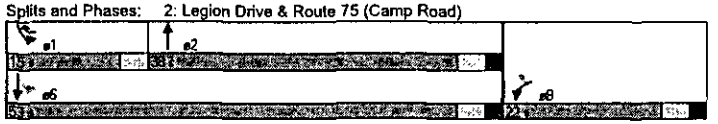
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	250		0	250	
Storage Lanes	1	1		0	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50
Trailing Detector (ft)	0	0	0		0	0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.974			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3447	0	1770	3539
Flt Permitted	0.950				0.196	
Satd. Flow (perm)	1770	1583	3447	0	365	3539
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)		127	44			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	35		40			40
Link Distance (ft)	760		863			689
Travel Time (s)	14.8		14.7			11.7
Volume (vph)	249	382	702	150	387	1077
Peak Hour Factor	0.84	0.84	0.95	0.95	0.93	0.93
Adj. Flow (vph)	296	455	739	158	416	1158
Lane Group Flow (vph)	296	455	897	0	416	1158
Turn Type		pm+ov			pm+pt	
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phases	8	1	2		1	6
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	21.0	9.0	28.0		9.0	28.0
Total Split (s)	22.0	15.0	38.0	0.0	15.0	53.0
Total Split (%)	29.3%	20.0%	50.7%	0.0%	20.0%	70.7%
Maximum Green (s)	17.0	12.0	33.0		12.0	48.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	0.0	2.0		0.0	2.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	5.0		5.0			5.0
Flash Dont Walk (s)	11.0		11.0			11.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	14.8	30.2	21.8		37.1	37.1
Actuated g/C Ratio	0.25	0.50	0.36		0.62	0.62
v/c Ratio	0.68	0.53	0.70		0.86	0.53
Control Delay	30.8	11.0	18.9		31.1	7.8
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	30.8	11.0	18.9		31.1	7.8
LOS	C	B	B		C	A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach Delay	18.8		18.9		14.0	
Approach LOS	B		B		B	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 60.2
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 16.5 — Intersection LOS: B
Intersection Capacity Utilization 69.4% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Legion Drive & Route 75 (Camp Road)



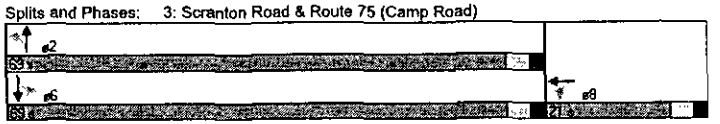
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	*0*		*0*	275		*0*	*0*		*0*	300		*0*
Storage Lanes	0		0	1		0	0		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	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	0.95	0.95	0.95	1.00	0.95	0.95
Frt					0.850			0.982				
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	0	0	1770	1583	0	0	3476	0	1770	3539	0
Flt Permitted				0.950						0.244		
Satd. Flow (perm)	0	0	0	1770	1583	0	0	3476	0	455	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					204			41				
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)		35			35			40			40	
Link Distance (ft)		92			373			1152			1898	
Travel Time (s)		1.8			7.3			19.6			32.4	
Volume (vph)	0	0	0	129	0	202	0	860	114	217	1163	0
Peak Hour Factor	0.25	0.25	0.25	0.86	0.86	0.86	0.93	0.93	0.93	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	150	0	235	0	925	123	228	1224	0
Lane Group Flow (vph)	0	0	0	150	235	0	0	1048	0	228	1224	0
Turn Type				Perm			Perm			Perm		
Protected Phases					8			2			6	
Permitted Phases				8			2			6		
Detector Phases				6	8		2	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		57.0	57.0		21.0	21.0	
Total Split (s)	0.0	0.0	0.0	21.0	21.0	0.0	69.0	69.0	0.0	69.0	69.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	23.3%	23.3%	0.0%	76.7%	76.7%	0.0%	76.7%	76.7%	0.0%
Maximum Green (s)				16.0	16.0		64.0	64.0		64.0	64.0	
Yellow Time (s)				3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)				2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode				None	None		Min	Min		Min	Min	
Walk Time (s)				5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)				11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)				0	0		0	0		0	0	
Act Effct Green (s)				11.8	11.8			47.2		47.2	47.2	
Actuated g/C Ratio				0.18	0.18			0.73		0.73	0.73	
v/c Ratio				0.48	0.52			0.41		0.68	0.47	
Control Delay				31.2	11.5			4.6		20.1	5.2	
Queue Delay				0.0	0.0			0.0		0.0	0.0	
Total Delay				31.2	11.5			4.6		20.1	5.2	
LOS				C	B			A		C	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay					19.2			4.6			7.5	
Approach LOS					B			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 64.5
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 8.0 — Intersection LOS: A
Intersection Capacity Utilization 82.1% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Scranton Road & Route 75 (Camp Road)



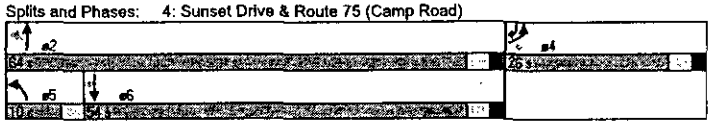
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	200			400
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.095			
Satd. Flow (perm)	1770	1583	177	3539	3539	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		23				319
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			40	40	
Link Distance (ft)	1822			1898	1224	
Travel Time (s)	41.4			32.4	20.9	
Volume (vph)	316	45	115	871	1267	438
Peak Hour Factor	0.94	0.94	0.96	0.96	0.91	0.91
Adj. Flow (vph)	336	48	120	907	1392	481
Lane Group Flow (vph)	336	48	120	907	1392	481
Turn Type		Perm	pm+pt			pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	4
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)	26.0	26.0	10.0	64.0	54.0	26.0
Total Split (%)	28.9%	28.9%	11.1%	71.1%	60.0%	28.9%
Maximum Green (s)	21.0	21.0	7.0	59.0	49.0	21.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0	2.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	Max	Max	None
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)	20.5	20.5	60.0	60.1	52.2	77.6
Actuated g/C Ratio	0.23	0.23	0.66	0.68	0.59	0.88
v/c Ratio	0.82	0.12	0.55	0.38	0.67	0.34
Control Delay	49.8	17.5	17.0	6.9	15.4	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.8	17.5	17.0	6.9	15.4	1.1
LOS	D	B	B	A	B	A

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	45.8			8.1	11.7	
Approach LOS	D			A	B	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 88.6
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 14.6 — Intersection LOS: B
Intersection Capacity Utilization 68.9% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 4: Sunset Drive & Route 75 (Camp Road)



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	111	418	382	706	1422	79
Peak Hour Factor	0.75	0.75	0.96	0.96	0.90	0.90
Hourly flow rate (vph)	148	557	398	735	1580	88
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2665		834	1668		
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2665		834	1668		
tC, single (s)	6.8		6.9	4.1		
tC, 2 stage (s)						
tF (s)	3.5		3.3	2.2		
p0 queue free %	0		0			
cM capacity (veh/h)	0		311	381		

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	705	398	245	245	245	1053	614
Volume Left	148	398	0	0	0	0	0
Volume Right	557	0	0	0	0	0	88
cSH	0	381	1700	1700	1700	1700	1700
Volume to Capacity	Err	1.04	0.14	0.14	0.14	0.62	0.36
Queue Length 95th (ft)	Err	332	0	0	0	0	0
Control Delay (s)	Err	91.5	0.0	0.0	0.0	0.0	0.0
Lane LOS	F	F					
Approach Delay (s)	Err	32.1				0.0	
Approach LOS	F						

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	104.9%	ICU Level of Service	G
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	434	215	167	881	1179	468
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	472	234	182	958	1282	509
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2378		682	1790		
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2378		682	1790		
tC, single (s)	6.8		6.9	4.1		
tC, 2 stage (s)						
tF (s)	3.5		3.3	2.2		
p0 queue free %	0		40	47		
cM capacity (veh/h)	13		393	342		

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	472	234	501	638	513	513	765
Volume Left	472	0	182	0	0	0	0
Volume Right	0	234	0	0	0	0	509
cSH	13	393	342	1700	1700	1700	1700
Volume to Capacity	34.98	0.60	0.53	0.38	0.30	0.30	0.45
Queue Length 95th (ft)	Err	93	74	0	0	0	0
Control Delay (s)	Err	26.8	20.9	0.0	0.0	0.0	0.0
Lane LOS	F	D	C				
Approach Delay (s)	6695.4		9.2		0.0		
Approach LOS	F						

Intersection Summary			
Average Delay	1302.3		
Intersection Capacity Utilization	96.5%	ICU Level of Service	F
Analysis Period (min)	15		

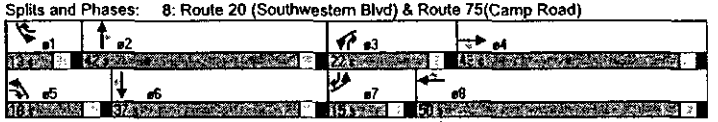
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		550	550		550	195		145	195		350
Storage Lanes	2		1	2		1	2		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			9			16			240			32
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)		50			45			45			45	
Link Distance (ft)		6123			996			1397			631	
Travel Time (s)		83.5			15.1			21.2			9.6	
Volume (vph)	239	469	385	432	876	15	582	637	420	23	958	391
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.98	0.98	0.98	0.96	0.96	0.96
Adj. Flow (vph)	260	510	418	470	952	16	594	650	429	24	998	407
Lane Group Flow (vph)	260	510	418	470	952	16	594	650	429	24	998	407
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phases	7	4	5	3	8	1	5	2	3	1	6	7
Minimum Initial (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
Minimum Split (s)	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0
Total Split (s)	15.0	43.0	18.0	22.0	50.0	13.0	18.0	42.0	22.0	13.0	37.0	15.0
Total Split (%)	12.5%	35.8%	15.0%	18.3%	41.7%	10.8%	15.0%	35.0%	18.3%	10.8%	30.8%	12.5%
Maximum Green (s)	10.0	38.0	13.0	17.0	45.0	8.0	13.0	37.0	17.0	8.0	32.0	10.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-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)	11.0	31.3	57.0	18.0	38.3	50.1	21.7	51.1	73.1	7.9	33.0	48.0
Actuated g/C Ratio	0.09	0.26	0.48	0.15	0.32	0.42	0.18	0.43	0.61	0.07	0.28	0.40
v/c Ratio	0.83	0.55	0.55	0.91	0.84	0.02	0.95	0.43	0.41	0.21	1.03	0.62
Control Delay	75.2	40.0	25.4	73.6	45.4	7.2	75.9	27.7	7.7	56.9	78.5	31.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.2	40.0	25.4	73.6	45.4	7.2	75.9	27.7	7.7	56.9	78.5	31.5
LOS	E	D	C	E	D	A	E	C	A	E	E	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		42.5			54.2			39.7			64.8	
Approach LOS		D			D			D			E	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 50.2 Intersection LOS: D
Intersection Capacity Utilization 87.5% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 8: Route 20 (Southwestern Blvd) & Route 75(Camp Road)

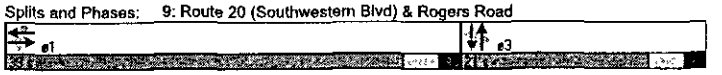


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	300		105	35		0	85		0
Storage Lanes	1		0	1		1	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50	50	50	50		50	50	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996				0.850		0.960			0.955	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3525	0	1770	3539	1583	1770	1788	0	1770	1779	0
Flt Permitted	0.152			0.302			0.631			0.631		
Satd. Flow (perm)	283	3525	0	563	3539	1583	1175	1788	0	1175	1779	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7				262		30			36	
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)		50			50			35			35	
Link Distance (ft)		1073			6123			963			918	
Travel Time (s)		14.6			83.5			18.8			17.9	
Volume (vph)	30	732	19	49	1154	238	23	109	39	153	96	41
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.87	0.87	0.87	0.81	0.81	0.81
Adj. Flow (vph)	33	804	21	54	1268	262	26	125	45	189	119	51
Lane Group Flow (vph)	33	825	0	54	1268	262	26	170	0	189	170	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1		1	3			3		
Detector Phases	1	1		1	1	1	3	3		3	3	
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	27.0	27.0		27.0	27.0	27.0	21.0	21.0		21.0	21.0	
Total Split (s)	39.0	39.0	0.0	39.0	39.0	39.0	21.0	21.0	0.0	21.0	21.0	0.0
Total Split (%)	65.0%	65.0%	0.0%	65.0%	65.0%	65.0%	35.0%	35.0%	0.0%	35.0%	35.0%	0.0%
Maximum Green (s)	34.0	34.0		34.0	34.0	34.0	16.0	16.0		16.0	16.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min	Min	None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effct Green (s)	33.7	33.7		33.7	33.7	33.7	13.5	13.5		13.5	13.5	
Actuated g/C Ratio	0.61	0.61		0.61	0.61	0.61	0.24	0.24		0.24	0.24	
v/c Ratio	0.19	0.38		0.16	0.59	0.25	0.09	0.37		0.66	0.37	
Control Delay	9.2	6.6		7.0	8.5	1.6	16.9	16.3		30.2	15.8	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	9.2	6.6		7.0	8.5	1.6	16.9	16.3		30.2	15.8	
LOS	A	A		A	A	A	B	B		C	B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		6.7			7.3			16.4			23.4	
Approach LOS		A			A			B			C	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 55.3	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 9.6	Intersection LOS: A
Intersection Capacity Utilization 65.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Route 20 (Southwestern Blvd) & Rogers Road



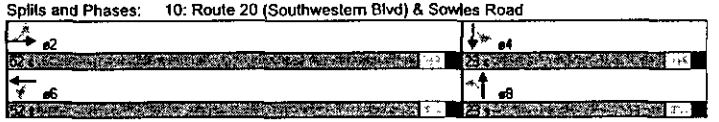
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.987			0.948			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3444	0	1770	3493	0	1770	1768	0	1770	1850	0
Flt Permitted	0.225			0.234			0.532			0.619		
Satd. Flow (perm)	419	3444	0	436	3493	0	991	1768	0	1153	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		60			21			34			3	
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)		45			45			35			35	
Link Distance (ft)		996			2741			815			936	
Travel Time (s)		15.1			41.5			15.9			18.2	
Volume (vph)	12	755	168	19	886	81	170	89	47	57	161	8
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.86	0.86	0.86	0.79	0.79	0.79
Adj. Flow (vph)	13	812	181	20	933	85	198	103	55	72	204	10
Lane Group Flow (vph)	13	993	0	20	1018	0	198	158	0	72	214	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		21.0	21.0		21.0	21.0	
Total Split (s)	52.0	52.0	0.0	52.0	52.0	0.0	28.0	28.0	0.0	28.0	28.0	0.0
Total Split (%)	65.0%	65.0%	0.0%	65.0%	65.0%	0.0%	35.0%	35.0%	0.0%	35.0%	35.0%	0.0%
Maximum Green (s)	47.0	47.0		47.0	47.0		23.0	23.0		23.0	23.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	51.9	51.9		51.9	51.9		20.1	20.1		20.1	20.1	
Actuated g/C Ratio	0.65	0.65		0.65	0.65		0.25	0.25		0.25	0.25	
v/c Ratio	0.05	0.44		0.07	0.45		0.80	0.34		0.25	0.46	
Control Delay	7.2	7.8		7.4	8.2		50.9	19.9		24.5	27.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	7.2	7.8		7.4	8.2		50.9	19.9		24.5	27.3	
LOS	A	A		A	A		D	B		C	C	

Proposed Camp Road Retail PM Peak - Option A Full Development Conditions
10: Route 20 (Southwestern Blvd) & Sowles Road 6/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		7.8			8.2			37.1			26.6	
Approach LOS		A			A			D			C	

Intersection Summary		
Area Type:	Other	
Cycle Length: 80		
Actuated Cycle Length: 80		
Offset: 53 (66%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green		
Natural Cycle: 50		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.80		
Intersection Signal Delay: 13.8	Intersection LOS: B	
Intersection Capacity Utilization 55.4%	ICU Level of Service B	
Analysis Period (min) 15		

Splits and Phases: 10: Route 20 (Southwestern Blvd) & Sowles Road



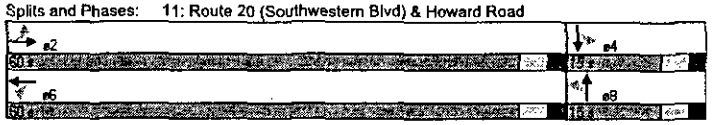
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Synchro 6
SRF & Associates

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	100		0
Storage Lanes	1		0	1		0	0		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		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.980						0.850	
Flt Protected	0.950			0.950				0.950		0.950		
Satd. Flow (prot)	1770	3539	0	1770	3468	0	0	1770	0	1770	1583	0
Flt Permitted	0.230			0.323				0.703		0.755		
Satd. Flow (perm)	428	3539	0	602	3468	0	0	1310	0	1406	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					62						198	
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)		45			45			30			30	
Link Distance (ft)		2741			732			192			400	
Travel Time (s)		41.5			11.1			4.4			9.1	
Volume (vph)	75	780	0	2	877	131	1	0	0	106	0	73
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.25	0.25	0.25	0.88	0.88	0.88
Adj. Flow (vph)	81	839	0	2	974	146	4	0	0	120	0	83
Lane Group Flow (vph)	81	839	0	2	1120	0	0	4	0	120	83	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	60.0	60.0	0.0	60.0	60.0	0.0	15.0	15.0	0.0	15.0	15.0	0.0
Total Split (%)	80.0%	80.0%	0.0%	80.0%	80.0%	0.0%	20.0%	20.0%	0.0%	20.0%	20.0%	0.0%
Maximum Green (s)	55.0	55.0		55.0	55.0		10.0	10.0		10.0	10.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	68.8	68.8		68.8	68.8			10.8		11.0	11.0	
Actuated g/C Ratio	0.80	0.80		0.80	0.80			0.12		0.12	0.12	
v/c Ratio	0.24	0.30		0.00	0.40			0.02		0.68	0.22	
Control Delay	4.8	3.0		2.5	3.3			28.0		50.5	1.4	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	4.8	3.0		2.5	3.3			28.0		50.5	1.4	
LOS	A	A		A	A			C		D	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		3.1			3.3			28.0			30.4	
Approach LOS		A			A			C			C	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 85.7	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 5.7	Intersection LOS: A
Intersection Capacity Utilization 48.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 11: Route 20 (Southwestern Blvd) & Howard Road



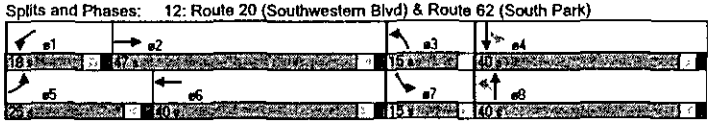
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	250		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.986			0.991			0.965			0.956	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3490	0	1770	3507	0	1770	3415	0	1770	3383	0
Flt Permitted	0.950			0.950			0.111			0.215		
Satd. Flow (perm)	1770	3490	0	1770	3507	0	207	3415	0	400	3383	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			5			34			53	
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)		45			45			45			45	
Link Distance (ft)		1014			518			1425			754	
Travel Time (s)		15.4			7.8			21.6			11.4	
Volume (vph)	220	664	66	139	697	43	93	447	137	45	602	247
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.87	0.87	0.87	0.91	0.91	0.91
Adj. Flow (vph)	237	714	71	149	749	46	107	514	157	49	662	271
Lane Group Flow (vph)	237	785	0	149	795	0	107	671	0	49	933	0
Turn Type	Prot			Prot			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8			4		
Detector Phases	5	2		1	6		3	8		7	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	15.0	38.0		16.0	38.0		9.0	37.0		9.0	37.0	
Total Split (s)	25.0	47.0	0.0	18.0	40.0	0.0	15.0	40.0	0.0	15.0	40.0	0.0
Total Split (%)	20.8%	39.2%	0.0%	15.0%	33.3%	0.0%	12.5%	33.3%	0.0%	12.5%	33.3%	0.0%
Maximum Green (s)	20.0	42.0		13.0	35.0		12.0	35.0		12.0	35.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	2.0		0.0	2.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		Min	Min		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)	18.0	34.2		12.6	28.9		41.1	33.0		37.6	31.2	
Actuated g/C Ratio	0.17	0.33		0.12	0.28		0.40	0.32		0.37	0.30	
v/c Ratio	0.77	0.67		0.69	0.81		0.52	0.60		0.21	0.88	
Control Delay	60.8	32.9		64.5	42.4		29.5	31.5		22.3	44.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	60.8	32.9		64.5	42.4		29.5	31.5		22.3	44.1	
LOS	E	C		E	D		C	C		C	D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		39.4			45.9			31.2			43.0	
Approach LOS		D			D			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 103
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 40.3 Intersection LOS: D
Intersection Capacity Utilization 75.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 12: Route 20 (Southwestern Blvd) & Route 62 (South Park)





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	9	60	48	1047	1335	17
Peak Hour Factor	0.85	0.85	0.84	0.84	0.90	0.90
Hourly flow rate (vph)	11	71	57	1246	1483	19
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				1100	745	
pX, platoon unblocked	0.91	0.85	0.85			
vC, conflicting volume	2230	751	1502			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1856	526	1412			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	79	83	86			
cM capacity (veh/h)	51	421	406			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	81	473	831	989	513
Volume Left	11	57	0	0	0
Volume Right	71	0	0	0	19
cSH	216	406	1700	1700	1700
Volume to Capacity	0.38	0.14	0.49	0.58	0.30
Queue Length 95th (ft)	41	12	0	0	0
Control Delay (s)	31.4	4.4	0.0	0.0	0.0
Lane LOS	D	A			
Approach Delay (s)	31.4	1.6		0.0	
Approach LOS	D				

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	75.2%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	3	0	6	10	0	19	11	1077	10	2	1361	3
Peak Hour Factor	0.65	0.65	0.65	0.77	0.77	0.77	0.98	0.98	0.98	0.95	0.95	0.95
Hourly flow rate (vph)	5	0	9	13	0	25	11	1099	10	2	1433	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								455				
pX, platoon unblocked	0.91	0.91		0.91	0.91	0.91				0.91		
vC, conflicting volume	2035	2570	718	1856	2567	555	1436			1109		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2039	2627	718	1842	2623	410	1436			1020		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	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 %	84	100	98	68	100	95	98			100		
cM capacity (veh/h)	28	21	372	40	21	537	469			614		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	14	38	11	733	377	2	955	481
Volume Left	5	13	11	0	0	2	0	0
Volume Right	9	25	0	0	10	0	0	3
cSH	73	103	469	1700	1700	614	1700	1700
Volume to Capacity	0.19	0.37	0.02	0.43	0.22	0.00	0.56	0.28
Queue Length 95th (ft)	16	37	2	0	0	0	0	0
Control Delay (s)	65.5	59.2	12.9	0.0	0.0	10.9	0.0	0.0
Lane LOS	F	F	B			B		
Approach Delay (s)	65.5	59.2	0.1			0.0		
Approach LOS	F	F						

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	13	11	1730	19	14	1770
Peak Hour Factor	0.63	0.63	0.96	0.96	0.91	0.91
Hourly flow rate (vph)	21	17	1802	20	15	1845
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2815	911			1822	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2815	911			1822	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	94			95	
cM capacity (veh/h)	14	277			332	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	38	1201	620	15	973	973
Volume Left	21	0	0	15	0	0
Volume Right	17	0	20	0	0	0
cSH	24	1700	1700	332	1700	1700
Volume to Capacity	1.58	0.71	0.36	0.05	0.57	0.57
Queue Length 95th (ft)	119	0	0	4	0	0
Control Delay (s)	634.0	0.0	0.0	16.4	0.0	0.0
Lane LOS	F			C		
Approach Delay (s)	634.0	0.0		0.1		
Approach LOS	F					

Intersection Summary			
Average Delay	6.4		
Intersection Capacity Utilization	58.9%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	23	26	1723	41	23	1765
Peak Hour Factor	0.70	0.70	0.94	0.94	0.89	0.89
Hourly flow rate (vph)	33	37	1833	44	26	1983
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						1062
pX, platoon unblocked	0.74					
vC, conflicting volume	2898	938			1877	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	3217	938			1877	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	86			92	
cM capacity (veh/h)	5	265			318	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	70	1222	655	26	992	992
Volume Left	33	0	0	26	0	0
Volume Right	37	0	44	0	0	0
cSH	11	1700	1700	316	1700	1700
Volume to Capacity	6.65	0.72	0.39	0.08	0.58	0.58
Queue Length 95th (ft)	Err	0	0	7	0	0
Control Delay (s)	Err	0.0	0.0	17.4	0.0	0.0
Lane LOS	F			C		
Approach Delay (s)	Err	0.0		0.2		
Approach LOS	F					

Intersection Summary			
Average Delay	177.1		
Intersection Capacity Utilization	58.9%	ICU Level of Service	B
Analysis Period (min)	15		

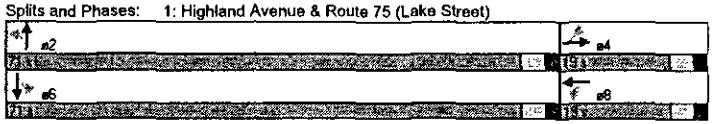
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		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		0.925			0.854			0.994			0.996	
Flt Protected	*0.950*			*0.950*			*0.950*			*0.950*		
Satd. Flow (prot)	1770	1723	0	1770	1591	0	1770	1852	0	1770	1855	0
Flt Permitted	0.458			0.754			0.332			0.195		
Satd. Flow (perm)	853	1723	0	1405	1591	0	618	1852	0	363	1855	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			175			7			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			30			30	
Link Distance (ft)		200			370			446			287	
Travel Time (s)		4.5			8.4			10.1			6.5	
Volume (vph)	11	2	2	31	4	142	3	816	34	105	654	18
Peak Hour Factor	0.58	0.58	0.58	0.81	0.81	0.81	0.86	0.86	0.86	0.95	0.95	0.95
Adj. Flow (vph)	19	3	3	38	5	175	3	949	40	111	688	19
Lane Group Flow (vph)	19	6	0	38	180	0	3	989	0	111	707	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	22.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	19.0	19.0	0.0	19.0	19.0	0.0	71.0	71.0	0.0	71.0	71.0	0.0
Total Split (%)	21.1%	21.1%	0.0%	21.1%	21.1%	0.0%	78.9%	78.9%	0.0%	78.9%	78.9%	0.0%
Maximum Green (s)	14.0	14.0		14.0	14.0		66.0	66.0		66.0	66.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	9.3	9.3		9.3	9.3		72.5	72.5		72.5	72.5	
Actuated g/C Ratio	0.10	0.10		0.10	0.10		0.81	0.81		0.81	0.81	
v/c Ratio	0.22	0.03		0.26	0.56		0.01	0.66		0.38	0.47	
Control Delay	39.7	26.7		38.5	13.3		2.3	6.7		7.3	4.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	39.7	26.7		38.5	13.3		2.3	6.7		7.3	4.2	
LOS	D	C		D	B		A	A		A	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		36.6			17.7			6.7			4.6	
Approach LOS		D			B			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 89.9
Natural Cycle: 70
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 7.4 Intersection LOS: A
Intersection Capacity Utilization 70.0% *ICU Level of Service C*
Analysis Period (min) 15

Splits and Phases: 1: Highland Avenue & Route 75 (Lake Street)



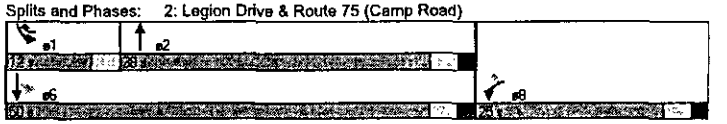
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	250		0	250	
Storage Lanes	1	1		0	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50
Trailing Detector (ft)	0	0	0		0	0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.969			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3429	0	1770	3539
Flt Permitted	0.950				0.148	
Satd. Flow (perm)	1770	1583	3429	0	276	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		100	58			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	35		40			40
Link Distance (ft)	760		863			689
Travel Time (s)	14.8		14.7			11.7
Volume (vph)	186	398	718	190	354	654
Peak Hour Factor	0.95	0.95	0.88	0.88	0.93	0.93
Adj. Flow (vph)	196	419	816	216	381	703
Lane Group Flow (vph)	196	419	1032	0	381	703
Turn Type		pm+ov			pm+pt	
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phases	8	1	2		1	6
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	21.0	9.0	28.0		9.0	28.0
Total Split (s)	25.0	12.0	38.0	0.0	12.0	50.0
Total Split (%)	33.3%	16.0%	50.7%	0.0%	16.0%	66.7%
Maximum Green (s)	20.0	9.0	33.0		9.0	45.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	0.0	2.0		0.0	2.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	5.0		5.0			5.0
Flash Dont Walk (s)	11.0		11.0			11.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	12.3	21.8	23.1		36.5	38.1
Actuated g/C Ratio	0.22	0.41	0.43		0.68	0.71
v/c Ratio	0.50	0.60	0.69		0.67	0.28
Control Delay	25.6	14.1	15.1		38.4	5.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	25.6	14.1	15.1		38.4	5.1
LOS	C	B	B		D	A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach Delay	17.8		15.1			16.8
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 53.8
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 16.4 — Intersection LOS: B
Intersection Capacity Utilization 65.8% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Legion Drive & Route 75 (Camp Road)



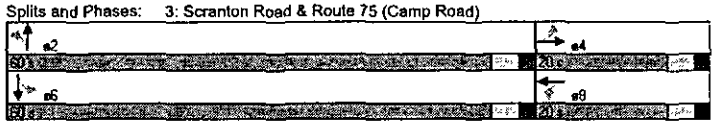
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	275		0	0		0	300		0
Storage Lanes	0		0	1		0	0		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		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	0.95	0.95	0.95	1.00	0.95	0.95
Frt		0.916			0.851			0.989				
Flt Protected		0.982		0.950						0.950		
Satd. Flow (prot)	0	1676	0	1770	1585	0	0	3500	0	1770	3539	0
Flt Permitted		0.905		0.752				0.955		0.224		
Satd. Flow (perm)	0	1544	0	1401	1585	0	0	3343	0	417	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			161			25				
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)		35			35			40			40	
Link Distance (ft)		92			373			1152			1898	
Travel Time (s)		1.8			7.3			19.6			32.4	
Volume (vph)	1	0	2	108	1	184	1	987	81	178	836	1
Peak Hour Factor	0.38	0.38	0.38	0.88	0.88	0.88	0.97	0.97	0.97	0.95	0.95	0.95
Adj. Flow (vph)	3	0	5	123	1	209	1	1018	84	187	880	1
Lane Group Flow (vph)	0	8	0	123	210	0	0	1103	0	187	881	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		57.0	57.0		21.0	21.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	60.0	60.0	0.0	60.0	60.0	0.0
Total Split (%)	25.0%	25.0%	0.0%	25.0%	25.0%	0.0%	75.0%	75.0%	0.0%	75.0%	75.0%	0.0%
Maximum Green (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		11.7		11.7	11.7			42.1		42.1	42.1	
Actuated g/C Ratio		0.19		0.19	0.19			0.70		0.70	0.70	
v/c Ratio		0.03		0.47	0.49			0.47		0.64	0.35	
Control Delay		18.0		28.0	11.9			5.4		19.1	4.7	
Queue Delay		0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay		18.0		28.0	11.9			5.4		19.1	4.7	
LOS		B		C	B			A		B	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		18.0			17.8			5.4			7.2	
Approach LOS		B			B			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 59.9
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 7.8 Intersection LOS: A
Intersection Capacity Utilization 75.7% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 3: Scranton Road & Route 75 (Camp Road)



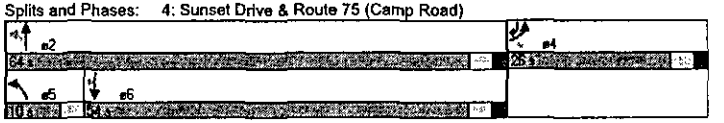
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	200			400
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.218			
Satd. Flow (perm)	1770	1583	406	3539	3539	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		33				256
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			40	40	
Link Distance (ft)	1822			1898	1224	
Travel Time (s)	41.4			32.4	20.9	
Volume (vph)	325	68	80	1048	932	253
Peak Hour Factor	0.95	0.95	0.98	0.98	0.99	0.99
Adj. Flow (vph)	342	72	82	1069	941	256
Lane Group Flow (vph)	342	72	82	1069	941	256
Turn Type		Perm	pm+pt			pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	4
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)	26.0	26.0	10.0	64.0	54.0	26.0
Total Split (%)	28.9%	28.9%	11.1%	71.1%	60.0%	28.9%
Maximum Green (s)	21.0	21.0	7.0	59.0	49.0	21.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0	2.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	Max	Max	None
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)	20.4	20.4	60.0	60.0	52.3	77.6
Actuated g/C Ratio	0.23	0.23	0.67	0.68	0.59	0.88
v/c Ratio	0.84	0.18	0.23	0.45	0.45	0.18
Control Delay	51.4	18.0	6.8	7.5	11.8	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.4	18.0	6.8	7.5	11.8	0.5
LOS	D	B	A	A	B	A

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	45.6			7.4	9.4	
Approach LOS	D			A	A	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 88.5
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 14.0 — Intersection LOS: B
Intersection Capacity Utilization 58.2% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 4: Sunset Drive & Route 75 (Camp Road)





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	132	523	555	664	726	102
Peak Hour Factor	0.92	0.92	0.96	0.96	0.94	0.94
Hourly flow rate (vph)	143	568	578	692	772	109
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2213	440	881			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2213	440	881			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	0	24			
cM capacity (veh/h)	9	564	763			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	712	578	231	231	231	515	366
Volume Left	143	578	0	0	0	0	0
Volume Right	568	0	0	0	0	0	109
cSH	42	763	1700	1700	1700	1700	1700
Volume to Capacity	16.87	0.76	0.14	0.14	0.14	0.30	0.22
Queue Length 95th (ft)	Err	179	0	0	0	0	0
Control Delay (s)	Err	22.9	0.0	0.0	0.0	0.0	0.0
Lane LOS	F	C					
Approach Delay (s)	Err	10.4				0.0	
Approach LOS	F						

Intersection Summary			
Average Delay	2491.5		
Intersection Capacity Utilization	103.6%	ICU Level of Service	G
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	556	267	251	741	726	683
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	604	290	273	805	789	742
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2109	634	1532			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2109	634	1532			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	31	37			
cM capacity (veh/h)	16	422	431			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	604	290	541	537	316	316	900
Volume Left	604	0	273	0	0	0	0
Volume Right	0	290	0	0	0	0	742
cSH	16	422	431	1700	1700	1700	1700
Volume to Capacity	37.51	0.69	0.63	0.32	0.19	0.19	0.53
Queue Length 95th (ft)	Err	127	107	0	0	0	0
Control Delay (s)	Err	30.4	23.4	0.0	0.0	0.0	0.0
Lane LOS	F	D	C				
Approach Delay (s)	6764.9		11.8		0.0		
Approach LOS	F						

Intersection Summary			
Average Delay	1730.5		
Intersection Capacity Utilization	97.9%	ICU Level of Service	F
Analysis Period (min)	15		

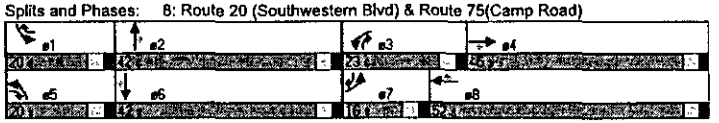
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		550	550		550	195		145	195		350
Storage Lanes	2		1	2		1	2		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			66			38			264			69
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)		50			45			45			45	
Link Distance (ft)		6123			996			1397			631	
Travel Time (s)		83.5			15.1			21.2			9.6	
Volume (vph)	256	567	463	469	652	36	510	603	490	34	539	258
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.94	0.94	0.94	0.96	0.96	0.96
Adj. Flow (vph)	281	623	509	494	686	38	543	641	521	35	561	269
Lane Group Flow (vph)	281	623	509	494	686	38	543	641	521	35	561	269
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phases	7	4	5	3	8	1	5	2	3	1	6	7
Minimum Initial (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
Minimum Split (s)	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0
Total Split (s)	16.0	45.0	20.0	23.0	52.0	20.0	20.0	42.0	23.0	20.0	42.0	16.0
Total Split (%)	12.3%	34.6%	15.4%	17.7%	40.0%	15.4%	15.4%	32.3%	17.7%	15.4%	32.3%	12.3%
Maximum Green (s)	11.0	40.0	15.0	18.0	47.0	15.0	15.0	37.0	18.0	15.0	37.0	11.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	*None*	*None*	*None*	*None*	*None*	*None*	*None*	*C-Max*	*None*	*None*	*C-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)	12.0	28.2	61.0	19.0	35.2	48.2	28.8	59.9	82.9	9.0	38.0	54.0
Actuated g/C Ratio	0.09	0.22	0.47	0.15	0.27	0.37	0.22	0.46	0.64	0.07	0.29	0.42
v/c Ratio	0.89	0.81	0.65	0.98	0.72	0.06	0.71	0.39	0.47	0.29	0.54	0.39
Control Delay	86.8	57.0	27.5	91.6	47.0	6.7	53.6	25.8	8.2	62.7	41.0	21.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.8	57.0	27.5	91.6	47.0	6.7	53.6	25.8	8.2	62.7	41.0	21.1
LOS	F	E	C	F	D	A	D	C	A	E	D	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		52.3			63.8			29.3			35.7	
Approach LOS		D			E			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 44.7 Intersection LOS: D
Intersection Capacity Utilization 71.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 8: Route 20 (Southwestern Blvd) & Route 75(Camp Road)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	300		105	35		0	85		0
Storage Lanes	1		0	1			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	50		50	50	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997				0.850		0.940			0.961	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3529	0	1770	3539	1583	1770	1751	0	1770	1790	0
Flt Permitted	0.326			0.311			0.657			0.660		
Satd. Flow (perm)	607	3529	0	579	3539	1583	1224	1751	0	1229	1790	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7				181		61			32	
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)		50			50			35			35	
Link Distance (ft)		1073			6123			963			918	
Travel Time (s)		14.6			83.5			18.8			17.9	
Volume (vph)	43	820	15	52	807	181	16	83	55	173	108	38
Peak Hour Factor	0.99	0.99	0.99	1.00	1.00	1.00	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	43	828	15	52	807	181	18	92	61	188	117	41
Lane Group Flow (vph)	43	843	0	52	807	181	18	153	0	188	158	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1		1	3			3		
Detector Phases	1	1		1	1	1	3	3		3	3	
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	27.0	27.0		27.0	27.0	27.0	21.0	21.0		21.0	21.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	35.0	15.0	15.0	0.0	15.0	15.0	0.0
Total Split (%)	70.0%	70.0%	0.0%	70.0%	70.0%	70.0%	30.0%	30.0%	0.0%	30.0%	30.0%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0	30.0	10.0	10.0		10.0	10.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min	Min	None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effct Green (s)	26.1	26.1		26.1	26.1	26.1	10.6	10.6		10.6	10.6	
Actuated g/C Ratio	0.58	0.58		0.58	0.58	0.58	0.24	0.24		0.24	0.24	
v/c Ratio	0.12	0.41		0.15	0.39	0.18	0.06	0.33		0.65	0.35	
Control Delay	5.2	5.8		5.6	5.7	1.3	15.2	11.9		29.5	14.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	5.2	5.8		5.6	5.7	1.3	15.2	11.9		29.5	14.5	
LOS	A	A		A	A	A	B	B		C	B	

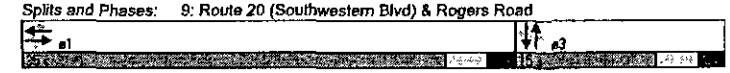
Proposed Camp Road Retail SAT Peak - Option A Full Development Conditions
9: Route 20 (Southwestern Blvd) & Rogers Road 6/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay	5.8			5.0			12.3			22.6		
Approach LOS	A			A			B			C		

Intersection Summary

Area Type: Other
Cycle Length: 50
Actuated Cycle Length: 44.9
Natural Cycle: 50
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 8.3 Intersection LOS: A
Intersection Capacity Utilization 57.1% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 9: Route 20 (Southwestern Blvd) & Rogers Road



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Synchro 6
SRF & Associates

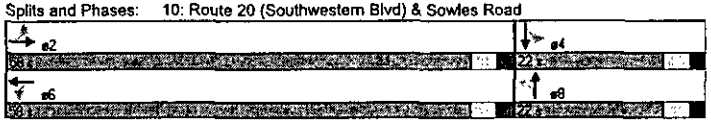
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.991			0.954			0.960	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3444	0	1770	3507	0	1770	1777	0	1770	1788	0
Flt Permitted	0.290			0.231			0.692			0.668		
Satd. Flow (perm)	540	3444	0	430	3507	0	1289	1777	0	1244	1788	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		73			17			25			21	
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)		45			45			35			35	
Link Distance (ft)		996			2741			815			936	
Travel Time (s)		15.1			41.5			15.9			18.2	
Volume (vph)	22	817	181	13	769	48	179	69	30	33	67	25
Peak Hour Factor	0.94	0.94	0.94	0.92	0.92	0.92	0.84	0.84	0.84	0.91	0.91	0.91
Adj. Flow (vph)	23	869	193	14	836	52	213	82	36	36	74	27
Lane Group Flow (vph)	23	1062	0	14	888	0	213	118	0	36	101	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		21.0	21.0		21.0	21.0	
Total Split (s)	58.0	58.0	0.0	58.0	58.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0
Total Split (%)	72.5%	72.5%	0.0%	72.5%	72.5%	0.0%	27.5%	27.5%	0.0%	27.5%	27.5%	0.0%
Maximum Green (s)	53.0	53.0		53.0	53.0		17.0	17.0		17.0	17.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	55.4	55.4		55.4	55.4		16.6	16.6		16.6	16.6	
Actuated g/C Ratio	0.69	0.69		0.69	0.69		0.21	0.21		0.21	0.21	
v/c Ratio	0.06	0.44		0.05	0.36		0.80	0.30		0.14	0.26	
Control Delay	4.9	5.9		4.9	5.7		52.7	22.6		26.5	22.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	4.9	5.9		4.9	5.7		52.7	22.6		26.5	22.5	
LOS	A	A		A	A		D	C		C	C	

Proposed Camp Road Retail — SAT Peak - Option A Full Development Conditions
10: Route 20 (Southwestern Blvd) & Sowles Road — 6/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		5.9			5.7			42.0			23.5	
Approach LOS		A			A			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 53 (66%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 11.7		Intersection LOS: B	
Intersection Capacity Utilization 51.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 10: Route 20 (Southwestern Blvd) & Sowles Road



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Synchro 6
SRF & Associates

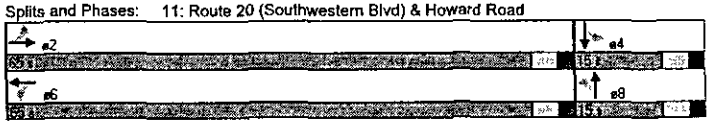
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	100		0
Storage Lanes	1		0	1		0	0		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.984						0.850	
Flt Protected	0.950							0.950		0.950		
Satd. Flow (prot)	1770	3539	0	1863	3483	0	0	1770	0	1770	1583	0
Flt Permitted	0.268							0.701		0.755		
Satd. Flow (perm)	499	3539	0	1863	3483	0	0	1306	0	1406	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					48						236	
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)		45			45			30			30	
Link Distance (ft)		2741			732			192			400	
Travel Time (s)		41.5			11.1			4.4			9.1	
Volume (vph)	71	894	1	0	824	98	1	0	0	104	0	70
Peak Hour Factor	0.89	0.89	0.89	0.92	0.92	0.92	0.25	0.25	0.25	0.81	0.81	0.81
Adj. Flow (vph)	80	1004	1	0	896	107	4	0	0	128	0	86
Lane Group Flow (vph)	80	1005	0	0	1003	0	0	4	0	128	86	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	65.0	65.0	0.0	65.0	65.0	0.0	15.0	15.0	0.0	15.0	15.0	0.0
Total Split (%)	81.3%	81.3%	0.0%	81.3%	81.3%	0.0%	18.8%	18.8%	0.0%	18.8%	18.8%	0.0%
Maximum Green (s)	60.0	60.0		60.0	60.0		10.0	10.0		10.0	10.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	70.2	70.2			70.2			10.9			10.9	10.9
Actuated g/C Ratio	0.79	0.79			0.79			0.12			0.12	0.12
v/c Ratio	0.20	0.36			0.36			0.02			0.74	0.21
Control Delay	4.0	3.3			3.2			30.0			59.7	1.2
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	4.0	3.3			3.2			30.0			59.7	1.2
LOS	A	A			A			C			E	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		3.4			3.2			30.0			36.2	
Approach LOS		A			A			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 89.3
Natural Cycle: 45
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 6.4 Intersection LOS: A
Intersection Capacity Utilization 45.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 11: Route 20 (Southwestern Blvd) & Howard Road



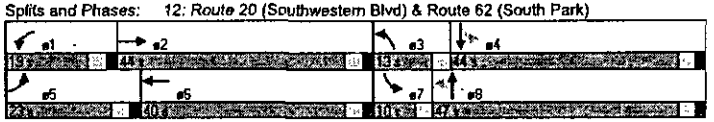
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	250		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.982			0.992			0.960			0.950	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3476	0	1770	3511	0	1770	3398	0	1770	3362	0
Flt Permitted	0.950			0.950			0.241			0.293		
Satd. Flow (perm)	1770	3476	0	1770	3511	0	449	3398	0	546	3362	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			5			48			77	
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)		45			45			45			45	
Link Distance (ft)		1014			518			1425			754	
Travel Time (s)		15.4			7.8			21.6			11.4	
Volume (vph)	176	776	104	107	691	41	76	420	152	54	400	199
Peak Hour Factor	0.88	0.88	0.88	0.94	0.94	0.94	0.88	0.88	0.88	0.93	0.93	0.93
Adj. Flow (vph)	200	882	118	114	735	44	86	477	173	58	430	214
Lane Group Flow (vph)	200	1000	0	114	779	0	86	650	0	58	644	0
Turn Type	Prot			Prot			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8			4		
Detector Phases	5	2		1	6		3	8		7	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	15.0	38.0		16.0	38.0		9.0	37.0		9.0	37.0	
Total Split (s)	23.0	44.0	0.0	19.0	40.0	0.0	13.0	47.0	0.0	10.0	44.0	0.0
Total Split (%)	19.2%	36.7%	0.0%	15.8%	33.3%	0.0%	10.8%	39.2%	0.0%	8.3%	36.7%	0.0%
Maximum Green (s)	18.0	39.0		14.0	35.0		10.0	42.0		7.0	39.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	2.0		0.0	2.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		Min	Min		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)	15.0	31.1		11.5	27.6		30.1	22.9		27.3	21.6	
Actuated g/C Ratio	0.17	0.35		0.13	0.31		0.34	0.26		0.31	0.24	
v/c Ratio	0.66	0.81		0.50	0.71		0.33	0.71		0.23	0.73	
Control Delay	49.4	32.7		48.5	31.9		24.0	32.7		22.8	33.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	49.4	32.7		48.5	31.9		24.0	32.7		22.8	33.4	
LOS	D	C		D	C		C	C		C	C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		35.5			34.0			31.7			32.5	
Approach LOS		D			C			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 88.3
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 33.7 Intersection LOS: C
Intersection Capacity Utilization 65.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 12: Route 20 (Southwestern Blvd) & Route 62 (South Park)



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	11	43	45	1101	939	32
Peak Hour Factor	0.54	0.54	0.96	0.96	0.93	0.93
Hourly flow rate (vph)	20	80	47	1147	1010	34
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				1100	745	
pX, platoon unblocked	0.94	0.93	0.93			
vC, conflicting volume	1694	522	1044			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1456	413	974			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	81	85	93			
cM capacity (veh/h)	105	548	656			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	100	429	765	673	371
Volume Left	20	47	0	0	0
Volume Right	80	0	0	0	34
cSH	295	656	1700	1700	1700
Volume to Capacity	0.34	0.07	0.45	0.40	0.22
Queue Length 95th (ft)	36	6	0	0	0
Control Delay (s)	23.3	2.1	0.0	0.0	0.0
Lane LOS	C	A			
Approach Delay (s)	23.3	0.8		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	72.0%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	3	0	17	20	0	17	14	1171	3	6	996	0
Peak Hour Factor	0.67	0.67	0.67	0.72	0.72	0.72	0.85	0.85	0.85	0.87	0.87	0.87
Hourly flow rate (vph)	4	0	25	28	0	24	16	1378	4	7	1145	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								455				
pX, platoon unblocked	0.87	0.87		0.87	0.87	0.87				0.87		
vC, conflicting volume	1904	2573	572	2024	2571	691	1145			1381		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1890	2656	572	2027	2654	501	1145			1291		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	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 %	87	100	95	0	100	95	97			99		
cM capacity (veh/h)	34	19	463	27	19	450	606			465		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	30	51	16	918	463	7	763	382
Volume Left	4	28	16	0	0	7	0	0
Volume Right	25	24	0	0	4	0	0	0
cSH	161	47	606	1700	1700	465	1700	1700
Volume to Capacity	0.19	1.08	0.03	0.54	0.27	0.01	0.45	0.22
Queue Length 95th (ft)	16	116	2	0	0	1	0	0
Control Delay (s)	32.4	293.7	11.1	0.0	0.0	12.9	0.0	0.0
Lane LOS	D	F	B			B		
Approach Delay (s)	32.4	293.7	0.1			0.1		
Approach LOS	D	F						

Intersection Summary			
Average Delay	6.2		
Intersection Capacity Utilization	45.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	10	4	1652	40	10	1522
Peak Hour Factor	0.54	0.54	0.90	0.90	0.91	0.91
Hourly flow rate (vph)	19	7	1836	44	11	1673
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2716	940			1880	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2716	940			1880	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	97			97	
cM capacity (veh/h)	16	265			315	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	26	1224	656	11	836	836
Volume Left	19	0	0	11	0	0
Volume Right	7	0	44	0	0	0
cSH	22	1700	1700	315	1700	1700
Volume to Capacity	1.17	0.72	0.39	0.03	0.49	0.49
Queue Length 95th (ft)	84	0	0	3	0	0
Control Delay (s)	502.2	0.0	0.0	16.8	0.0	0.0
Lane LOS	F			C		
Approach Delay (s)	502.2	0.0		0.1		
Approach LOS	F					

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	18	23	1653	28	20	1480
Peak Hour Factor	0.95	0.95	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	19	24	1816	31	22	1626
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						1062
pX, platoon unblocked	0.88					
vC, conflicting volume	2689	924			1847	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2787	924			1847	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	91			93	
cM capacity (veh/h)	12	272			325	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	43	1211	636	22	813	813
Volume Left	19	0	0	22	0	0
Volume Right	24	0	31	0	0	0
cSH	26	1700	1700	325	1700	1700
Volume to Capacity	1.64	0.71	0.37	0.07	0.48	0.48
Queue Length 95th (ft)	130	0	0	5	0	0
Control Delay (s)	634.3	0.0	0.0	16.9	0.0	0.0
Lane LOS	F			C		
Approach Delay (s)	634.3	0.0		0.2		
Approach LOS	F					

Intersection Summary			
Average Delay	7.8		
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		

A7

Level of Service Calculations: Full Development Conditions with Mitigation

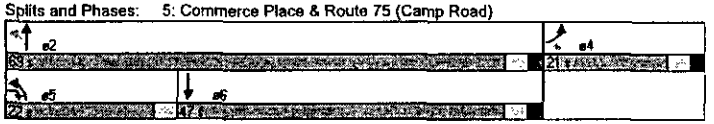
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	300	250			0
Storage Lanes	1	1	1			0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0	
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	0.91	0.95	0.95
Flt		0.850			0.992	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	5085	3511	0
Flt Permitted	0.950		0.085			
Satd. Flow (perm)	1770	1583	158	5085	3511	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		12			9	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			40	45	
Link Distance (ft)	551			325	126	
Travel Time (s)	12.5			5.5	1.9	
Volume (vph)	111	418	382	706	1422	79
Peak Hour Factor	0.75	0.75	0.96	0.96	0.90	0.90
Adj. Flow (vph)	148	557	398	735	1580	88
Lane Group Flow (vph)	148	557	398	735	1668	0
Turn Type		pm+ov	pm+pt			
Protected Phases	4	5	5	2	6	
Permitted Phases		4	2			
Detector Phases	4	5	5	2	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	9.0	9.0	21.0	21.0	
Total Split (s)	21.0	22.0	22.0	69.0	47.0	0.0
Total Split (%)	23.3%	24.4%	24.4%	76.7%	52.2%	0.0%
Maximum Green (s)	16.0	19.0	19.0	64.0	42.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	0.0	0.0	2.0	2.0	
Lead/Lag		Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	Max	Max	
Walk Time (s)	5.0			5.0	5.0	
Flash Dont Walk (s)	11.0			11.0	11.0	
Pedestrian Calls (#/hr)	0			0	0	
Act Effct Green (s)	13.0	34.2	65.1	65.1	43.9	
Actuated g/C Ratio	0.15	0.40	0.76	0.76	0.51	
v/c Ratio	0.55	0.88	0.90	0.19	0.93	
Control Delay	41.8	39.7	48.5	3.4	31.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	41.8	39.7	48.5	3.4	31.5	
LOS	D	D	D	A	C	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	40.2			19.2	31.5	
Approach LOS	D			B	C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 86.1
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 29.3 Intersection LOS: C
Intersection Capacity Utilization 79.1% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 5: Commerce Place & Route 75 (Camp Road)

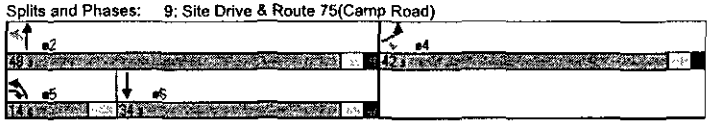


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0	
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.91	0.91
Frt		0.850			0.960	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	4882	0
Flt Permitted	0.950		0.118			
Satd. Flow (perm)	1770	1583	220	3539	4882	0
Right Turn on Red		No				Yes
Satd. Flow (RTOR)					109	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			45	45	
Link Distance (ft)	192			137	358	
Travel Time (s)	4.4			2.1	5.4	
Volume (vph)	434	215	167	1205	1286	468
Peak Hour Factor	0.92	0.92	0.96	0.96	0.91	0.91
Adj. Flow (vph)	472	234	174	1255	1413	514
Lane Group Flow (vph)	472	234	174	1255	1927	0
Turn Type		pm+ov	pm+pt			
Protected Phases	4	5	5	2	6	
Permitted Phases		4	2			
Detector Phases	4	5	5	2	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	26.5	8.0	8.0	21.0	21.0	
Total Split (s)	42.0	14.0	14.0	48.0	34.0	0.0
Total Split (%)	46.7%	15.6%	15.6%	53.3%	37.8%	0.0%
Maximum Green (s)	37.0	10.5	10.5	43.0	29.0	
Yellow Time (s)	3.0	3.5	3.5	3.0	3.0	
All-Red Time (s)	2.0	0.0	0.0	2.0	2.0	
Lead/Lag		Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	Max	Max	
Walk Time (s)	5.0			5.0	5.0	
Flash Dont Walk (s)	11.0			11.0	11.0	
Pedestrian Calls (#/hr)	0			0	0	
Act Effct Green (s)	26.5	38.7	44.4	44.4	32.1	
Actuated g/C Ratio	0.34	0.49	0.56	0.56	0.41	
v/c Ratio	0.80	0.30	0.61	0.63	0.94	
Control Delay	34.1	12.3	21.6	14.9	34.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	34.1	12.3	21.6	14.9	34.3	
LOS	C	B	C	B	C	
Approach Delay	26.9			15.7	34.3	
Approach LOS	C			B	C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 78.9
Natural Cycle: 70
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 26.5 — Intersection LOS: C
Intersection Capacity Utilization 78.6% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 9: Site Drive & Route 75(Camp Road)



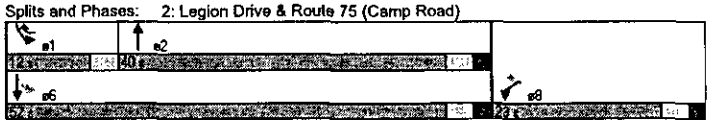
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	250		0	250	
Storage Lanes	1	1		0	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50
Trailing Detector (ft)	0	0	0		0	0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt			0.850	0.969		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3429	0	1770	3539
Flt Permitted	0.950				0.161	
Satd. Flow (perm)	1770	1583	3429	0	300	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		115	61			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	35		40			40
Link Distance (ft)	760		863			689
Travel Time (s)	14.8		14.7			11.7
Volume (vph)	186	398	718	190	354	654
Peak Hour Factor	0.95	0.95	0.88	0.88	0.93	0.93
Adj. Flow (vph)	196	419	816	216	381	703
Lane Group Flow (vph)	196	419	1032	0	381	703
Turn Type		pm+ov			pm+pt	
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phases	8	1	2		1	6
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	21.0	9.0	28.0		9.0	28.0
Total Split (s)	23.0	12.0	40.0	0.0	12.0	52.0
Total Split (%)	30.7%	16.0%	53.3%	0.0%	16.0%	69.3%
Maximum Green (s)	18.0	9.0	35.0		9.0	47.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	0.0	2.0		0.0	2.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	5.0		5.0			5.0
Flash Dont Walk (s)	11.0		11.0			11.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	12.3	21.8	23.3		36.8	38.3
Actuated g/C Ratio	0.22	0.40	0.43		0.68	0.71
v/c Ratio	0.51	0.59	0.68		0.85	0.28
Control Delay	26.0	13.7	14.9		34.0	5.0
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	26.0	13.7	14.9		34.0	5.0
LOS	C	B	B		C	A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach Delay	17.6		14.9		15.2	
Approach LOS	B		B		B	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 54.1
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 15.6 Intersection LOS: B
Intersection Capacity Utilization 65.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Legion Drive & Route 75 (Camp Road)



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	300	250			0
Storage Lanes	1		1			0
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	0.91	0.95	0.95
Frt		0.850			0.981	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	5085	3472	0
Flt Permitted	0.950		0.125			
Satd. Flow (perm)	1770	1583	233	5085	3472	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		568			18	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			40	45	
Link Distance (ft)	551			325	126	
Travel Time (s)	12.5			5.5	1.9	
Volume (vph)	132	523	555	664	726	102
Peak Hour Factor	0.92	0.92	0.96	0.96	0.94	0.94
Adj. Flow (vph)	143	568	578	692	772	109
Lane Group Flow (vph)	143	568	578	692	881	0
Turn Type		Perm	pm+pt			
Protected Phases	4		5	2	6	
Permitted Phases		4	2			
Detector Phases	4	4	5	2	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	21.0	8.0	21.0	21.0	
Total Split (s)	26.0	26.0	32.0	64.0	32.0	0.0
Total Split (%)	28.9%	28.9%	35.6%	71.1%	35.6%	0.0%
Maximum Green (s)	21.0	21.0	29.0	59.0	27.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	Max	Max	
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)	14.0	14.0	60.2	60.2	31.8	
Actuated g/C Ratio	0.17	0.17	0.73	0.73	0.39	
v/c Ratio	0.47	0.77	0.92	0.19	0.65	
Control Delay	35.6	10.5	41.5	4.0	25.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	35.6	10.5	41.5	4.0	25.2	
LOS	D	B	D	A	C	

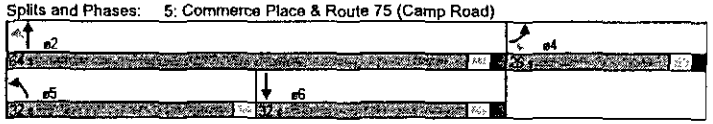
Proposed Camp Road Retail SAT Peak - Option A Full Development Mitigated Conditions
5: Commerce Place & Route 75 (Camp Road) 6/6/2007

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	15.5			21.1	25.2	
Approach LOS	B			C	C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 82.2
Natural Cycle: 75
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 21.0 Intersection LOS: C
Intersection Capacity Utilization 71.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 5: Commerce Place & Route 75 (Camp Road)



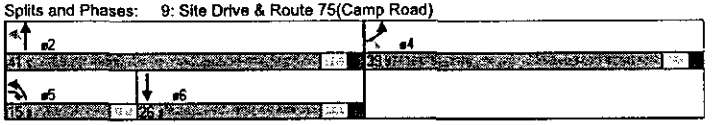
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Synchro 6
SRF & Associates

Lane Group	EBL	EBR	NBL	NBT	SBT	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	
Trailing Detector (ft)	0	0	0	0	0	
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.91	0.91
Frt		0.850			0.932	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	4739	0
Flt Permitted	0.950		0.154			
Satd. Flow (perm)	1770	1583	287	3539	4739	0
Right Turn on Red		No				Yes
Satd. Flow (RTOR)					255	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			45	45	
Link Distance (ft)	192			137	358	
Travel Time (s)	4.4			2.1	5.4	
Volume (vph)	556	267	251	1064	834	683
Peak Hour Factor	0.92	0.92	0.90	0.90	0.91	0.91
Adj. Flow (vph)	604	290	279	1182	916	751
Lane Group Flow (vph)	604	290	279	1182	1667	0
Turn Type		pm+ov	pm+pt			
Protected Phases	4	5	5	2	6	
Permitted Phases		4	2			
Detector Phases	4	5	5	2	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	8.0	8.0	21.0	21.0	
Total Split (s)	39.0	15.0	15.0	41.0	26.0	0.0
Total Split (%)	48.8%	18.8%	18.8%	51.3%	32.5%	0.0%
Maximum Green (s)	34.0	12.0	12.0	36.0	21.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	0.0	0.0	2.0	2.0	
Lead/Lag		Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	Max	Max	
Walk Time (s)	5.0			5.0	5.0	
Flash Dont Walk (s)	11.0			11.0	11.0	
Pedestrian Calls (#/hr)	0			0	0	
Act Effct Green (s)	29.5	43.9	37.2	37.2	22.9	
Actuated g/C Ratio	0.39	0.59	0.50	0.50	0.31	
v/c Ratio	0.86	0.31	0.80	0.67	1.12dr	
Control Delay	34.7	8.4	34.5	17.6	54.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	34.7	8.4	34.5	17.6	54.0	
LOS	C	A	C	B	D	
Approach Delay	26.2			20.8	54.0	
Approach LOS	C			C	D	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 74.8
Natural Cycle: 50
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 35.8 — Intersection LOS: D
Intersection Capacity Utilization 86.1% — ICU Level of Service E
Analysis Period (min) 15
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 9: Site Drive & Route 75(Camp Road)



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Synchro 6
SRF & Associates

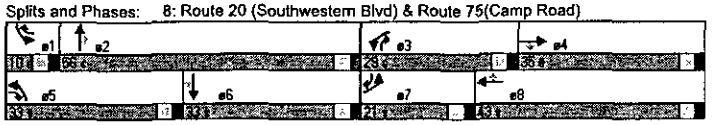
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		550	550		550	195		145	195		350
Storage Lanes	2		1	2		1	2		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			36			38			86			47
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)		50			45			45			45	
Link Distance (ft)		6123			996			1397			631	
Travel Time (s)		83.5			15.1			21.2			9.6	
Volume (vph)	256	567	463	469	652	36	510	603	490	34	539	258
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.94	0.94	0.94	0.96	0.96	0.96
Adj. Flow (vph)	281	623	509	494	686	38	543	641	521	35	561	269
Lane Group Flow (vph)	281	623	509	494	686	38	543	641	521	35	561	269
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phases	7	4	5	3	8	1	5	2	3	1	6	7
Minimum Initial (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
Minimum Split (s)	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0
Total Split (s)	21.0	35.0	33.0	29.0	43.0	10.0	33.0	56.0	29.0	10.0	33.0	21.0
Total Split (%)	16.2%	26.9%	25.4%	22.3%	33.1%	7.7%	25.4%	43.1%	22.3%	7.7%	25.4%	16.2%
Maximum Green (s)	16.0	30.0	28.0	24.0	38.0	5.0	28.0	51.0	24.0	5.0	28.0	16.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-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)	15.7	27.7	58.3	23.6	35.6	46.6	26.5	57.6	85.4	7.0	36.2	55.8
Actuated g/C Ratio	0.12	0.21	0.45	0.18	0.27	0.36	0.20	0.44	0.66	0.05	0.28	0.43
v/c Ratio	0.68	0.83	0.70	0.79	0.71	0.06	0.77	0.41	0.49	0.37	0.57	0.38
Control Delay	63.3	58.6	31.6	60.9	46.6	8.1	56.9	26.9	11.8	70.9	44.7	23.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.3	58.6	31.6	60.9	46.6	8.1	56.9	26.9	11.8	70.9	44.7	23.9
LOS	E	E	C	E	D	A	E	C	B	E	D	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		49.8			51.2			31.9			39.3	
Approach LOS		D			D			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 42.5 Intersection LOS: D
Intersection Capacity Utilization 71.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 8: Route 20 (Southwestern Blvd) & Route 75(Camp Road)



A8

Accident Analysis

INTERSECTION ACCIDENT RATE CALCULATIONS

$$\text{Rate per MEV} = \frac{\text{\# of Accidents} \times 1{,}000{,}000}{\text{Total No. of Entering Vehicles}} =$$

$$\text{Rate} = \frac{\text{\# of Accidents} \times 1{,}000{,}000}{\text{Veh./Day} \times \text{Duration of Study}} =$$

Accidents per million entering vehicles (Acc / MEV)

* Acccident data is from April 01, 2004 to April 01, 2007

---

1 Route 75/ Highland Avenue

ADT = Peak hour entering volume / k factor
ADT = 1690 VPH / 0.10 = 16900 VPD

$$\text{Rate} = \frac{2 \text{ Acc.} \times 1{,}000{,}000}{16900 \text{ VPD} \times 365 \text{ Days} \times 3.00 \text{ Yrs.*}} = 0.11 \text{ Acc / MEV}$$

2 Route 75/ Legion Drive

ADT = Peak hour entering volume / k factor
ADT = 2355 VPH / 0.10 = 23550 VPD

$$\text{Rate} = \frac{12 \text{ Acc.} \times 1{,}000{,}000}{23550 \text{ VPD} \times 365 \text{ Days} \times 3.00 \text{ Yrs.*}} = 0.47 \text{ Acc / MEV}$$

3 Route 75/ Scranton Road

ADT = Peak hour entering volume / k factor
ADT = 2023 VPH / 0.10 = 20230 VPD

$$\text{Rate} = \frac{2 \text{ Acc.} \times 1{,}000{,}000}{20230 \text{ VPD} \times 365 \text{ Days} \times 3.00 \text{ Yrs.*}} = 0.09 \text{ Acc / MEV}$$

4 Route 75/ Sunset Drive

ADT = Peak hour entering volume / k factor
ADT = 2185 VPH / 0.10 = 21850 VPD

$$\text{Rate} = \frac{5 \text{ Acc.} \times 1{,}000{,}000}{21850 \text{ VPD} \times 365 \text{ Days} \times 3.00 \text{ Yrs.*}} = 0.21 \text{ Acc / MEV}$$

5 Route 75/ Commerce Place

ADT = Peak hour entering volume / k factor
ADT = 2093 VPH / 0.10 = 20930 VPD

$$\text{Rate} = \frac{3 \text{ Acc.} \times 1{,}000{,}000}{20930 \text{ VPD} \times 365 \text{ Days} \times 3.00 \text{ Yrs.*}} = 0.13 \text{ Acc / MEV}$$

6 **Route 75/ Thruway Ramps**

ADT = Peak hour entering volume / k factor
ADT = 2573 VPH / 0.10 = 25730 VPD

$$\text{Rate} = \frac{4 \text{ Acc.} \times 1{,}000{,}000}{25730 \text{ VPD} \times 365 \text{ Days} \times 3.00 \text{ Yrs.}^*} = 0.14 \text{ Acc / MEV}$$

ROADWAY SEGMENT (MID-BLOCK) ACCIDENT RATE CALCULATIONS

$$\text{Rate per MVM} = \frac{\text{\# of Accidents} \times 1{,}000{,}000}{\text{Total Vehicle Miles of Travel}}$$

$$\text{Rate} = \frac{\text{\# of Accidents} \times 1{,}000{,}000}{\text{Sectional Length} \times \text{AADT} \times \text{Duration of Study}}$$

Accidents per million vehicle miles (Acc / MVM)

1. **Route 75 (Between Highland Avenue and Legion Drive)**

Section length = 0.590 mi
2 - way ADT = 19300

$$\text{Rate} = \frac{28 \text{ Acc.} \times 1{,}000{,}000}{0.590 \text{ mi} \times 19300 \text{ VPD} \times 365 \text{ Days} \times 3.00 \text{ Yrs.}} = \mathbf{2.25 \text{ Acc / MVM}}$$

2. **Route 75 (Between Legion Drive and Scranton Road)**

Section length = 0.284 mi
2 - way ADT = 26800

$$\text{Rate} = \frac{8 \text{ Acc.} \times 1{,}000{,}000}{0.440 \text{ mi} \times 26800 \text{ VPD} \times 365 \text{ Days} \times 3.00 \text{ Yrs.}} = \mathbf{0.62 \text{ Acc / MVM}}$$

3 **Route 75 (Between Scranton Road and Sunset Drive)**

Section length = 0.360 mi
2 - way ADT = 26800

$$\text{Rate} = \frac{19 \text{ Acc.} \times 1{,}000{,}000}{0.360 \text{ mi} \times 26800 \text{ VPD} \times 365 \text{ Days} \times 3.00 \text{ Yrs.}} = \mathbf{1.80 \text{ Acc / MVM}}$$

4 ***Route 75* (Between Sunset Drive and Commerce Place)**

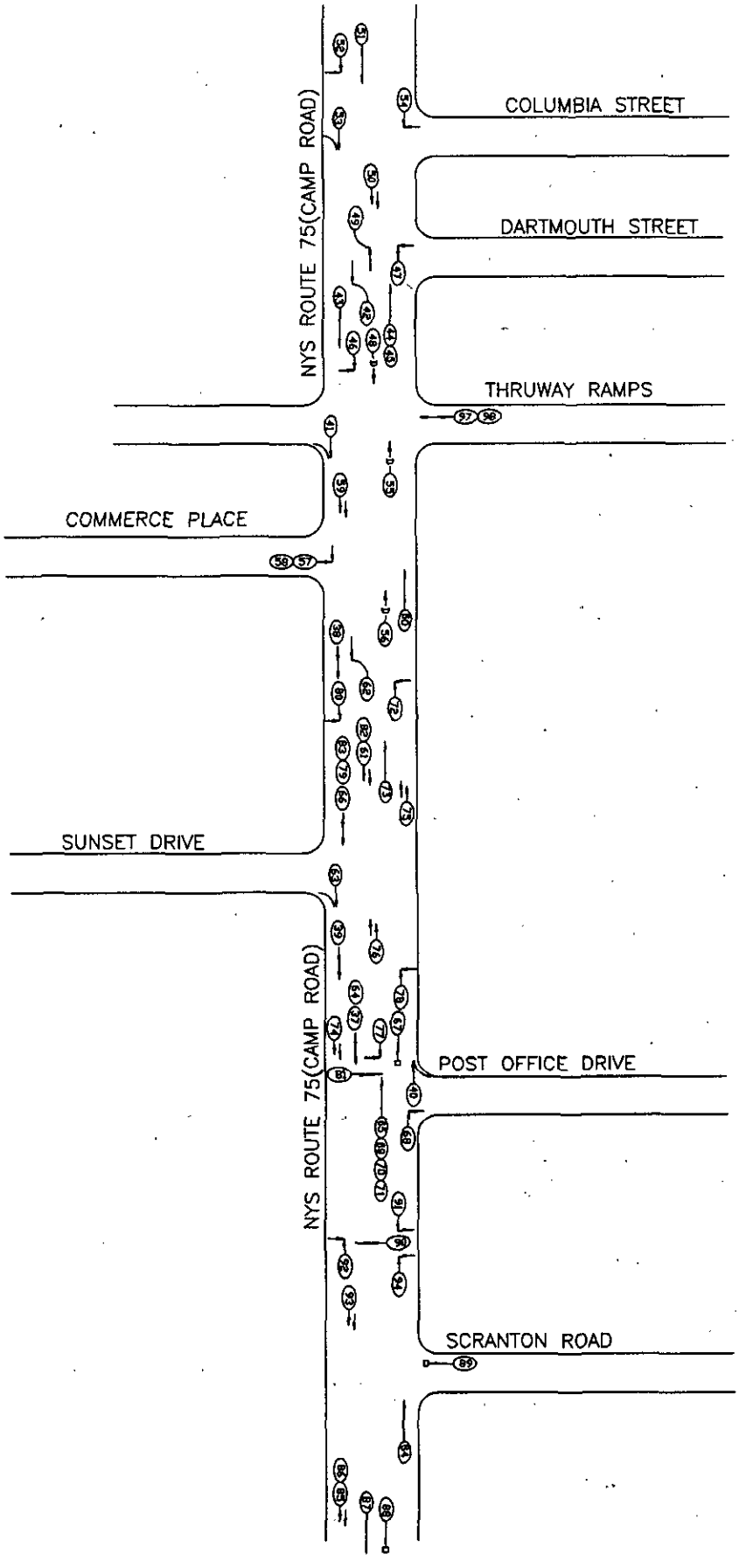
Section length = 0.300 mi
2 - way ADT = 26800

$$\text{Rate} = \frac{8 \text{ Acc.} \times 1{,}000{,}000}{0.300 \text{ mi} \times 26800 \text{ VPD} \times 365 \text{ Days} \times 3.00 \text{ Yrs.}} = \mathbf{0.91 \text{ Acc / MVM}}$$

5 **Route 75 (Between Thruway Ramps and Columbia Street)**

Section length = 0.370 mi
2 - way ADT = 25848

$$\text{Rate} = \frac{12 \text{ Acc.} \times 1{,}000{,}000}{0.370 \text{ mi} \times 25848 \text{ VPD} \times 365 \text{ Days} \times 3.00 \text{ Yrs.}} = \mathbf{1.15 \text{ Acc / MVM}}$$



ACCIDENT DETAIL

TYPE OF ACCIDENT

KEY NUMBER

SYMBOLS

MOVING VEHICLE
BACKING VEHICLE
FIXED OBJECT
RIGHT ANGLE
REAR END
RIGHT TURN
HEAD ON
PEDESTRIAN
BICYCLE
MOTORCYCLE
DEER HIT
OVERTAKING
LEFT TURN
SIDESWIPE
TURKEY HIT

N

NOT TO SCALE

FIGURE 1 OF 2

ACCIDENT DIAGRAM

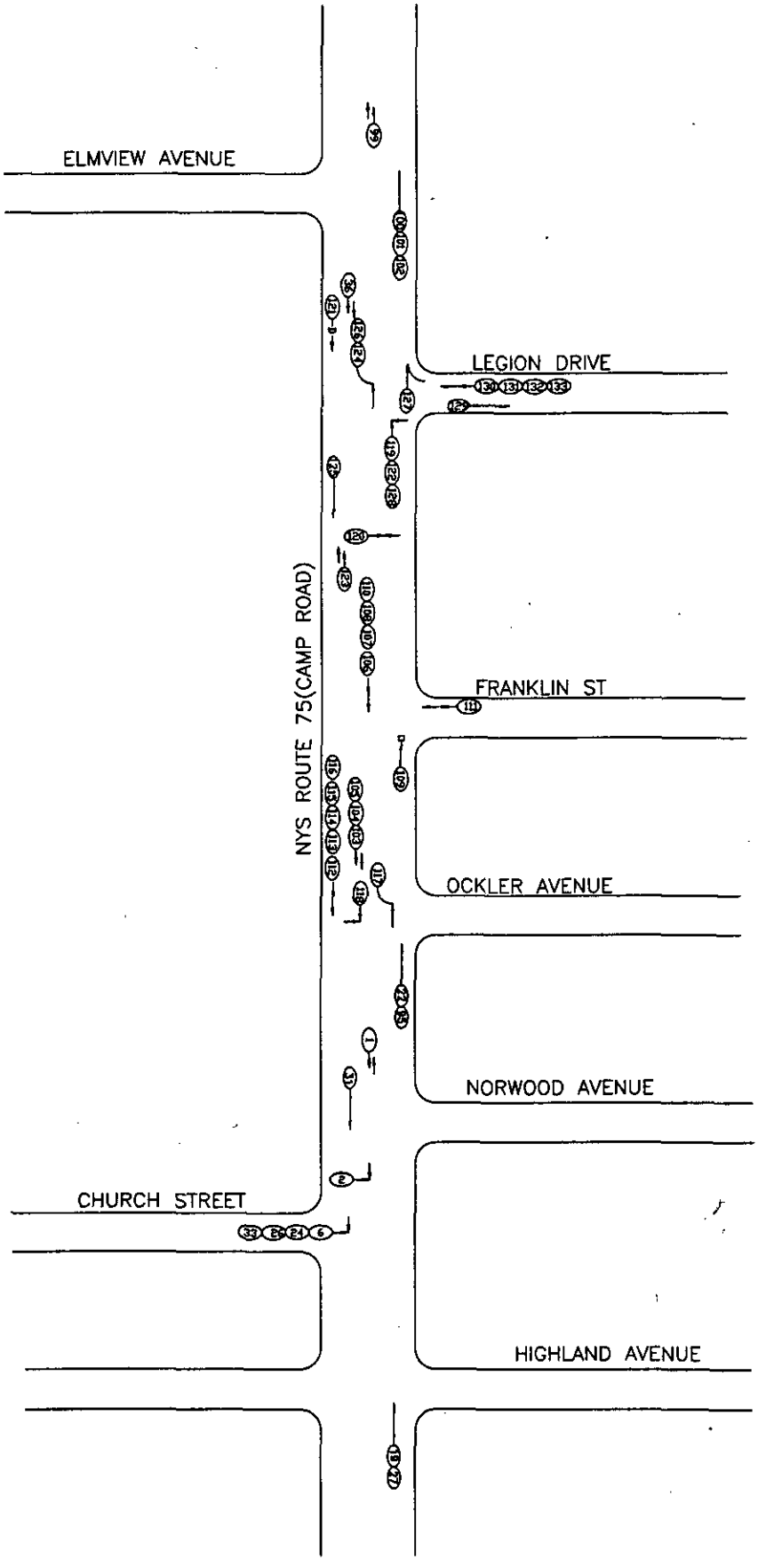
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TOWN OF HAMBURG, NEW YORK

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ACCIDENT DETAIL

TYPE OF ACCIDENT

KEY NUMBER

SYMBOLS

MOVING VEHICLE
BACKING VEHICLE
FIXED OBJECT
RIGHT ANGLE
REAR END
RIGHT TURN
HEAD ON
PEDESTRIAN
BICYCLE
MOTORCYCLE
DEER HIT
OVERTAKING
LEFT TURN
SIDESWIPE
T- TURKEY HIT

N

NOT TO SCALE

FIGURE 2 OF 2

ACCIDENT DIAGRAM

PROPOSED HAMBURG CROSSINGS

TOWN OF HAMBURG, NEW YORK

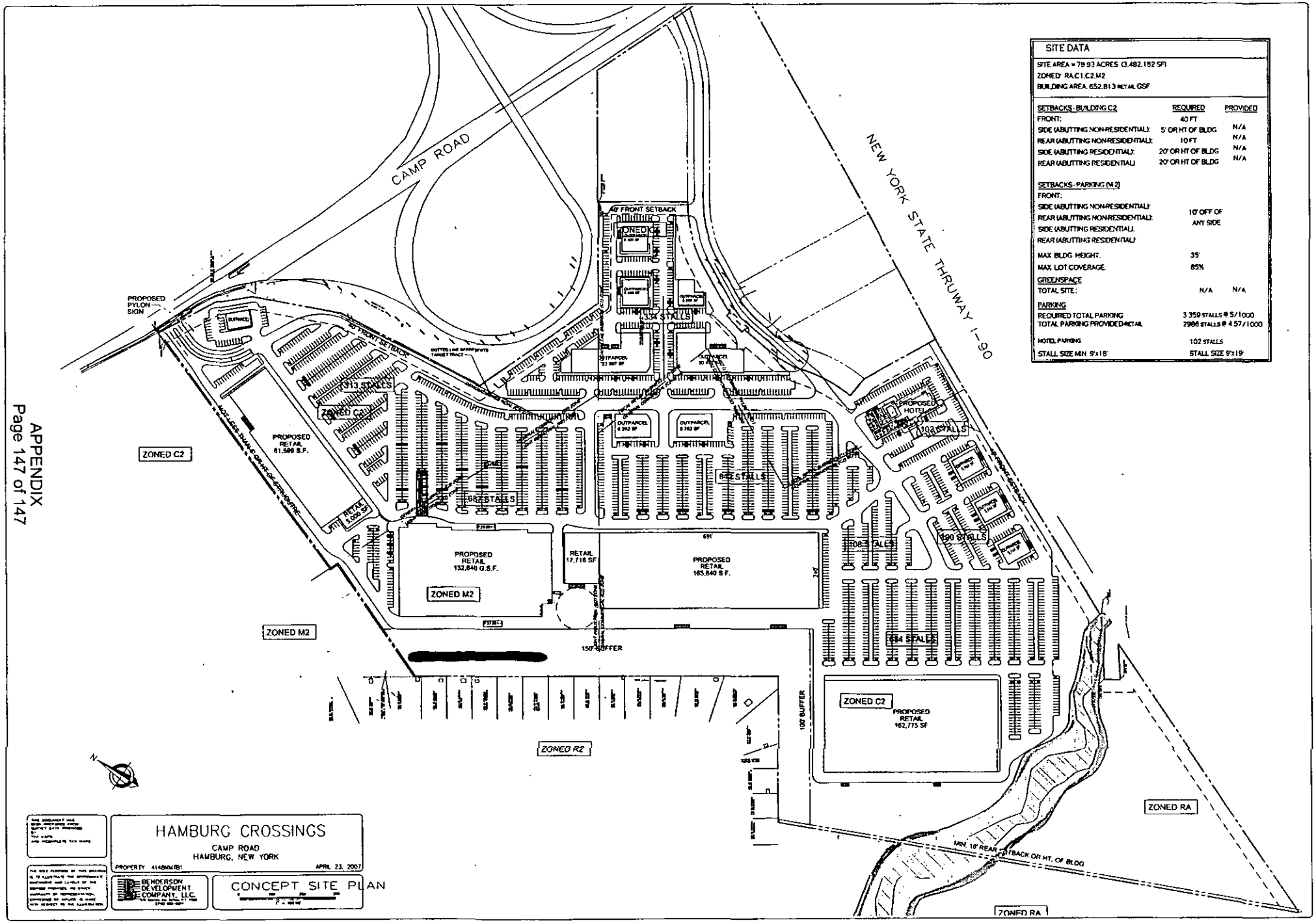
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A9

Site Plan



SITE DATA

SITE AREA = 79.93 ACRES (3,482,182 SF)
ZONED: RA,C1,C2,M2
BUILDING AREA: 652,813 RETAIL GSF

	REQUIRED	PROVIDED
SETBACKS - BUILDING C2		
FRONT:	40 FT	
SIDE (ABUTTING NON-RESIDENTIAL):	5' OR HT OF BLDG	N/A
REAR (ABUTTING NON-RESIDENTIAL):	10 FT	N/A
SIDE (ABUTTING RESIDENTIAL):	20' OR HT OF BLDG	N/A
REAR (ABUTTING RESIDENTIAL)	20' OR HT OF BLDG	N/A
SETBACKS - PARKING (M-2)		
FRONT:		
SIDE (ABUTTING NON-RESIDENTIAL):	10' OFF OF ANY SIDE	
REAR (ABUTTING NON-RESIDENTIAL):		
SIDE (ABUTTING RESIDENTIAL):		
REAR (ABUTTING RESIDENTIAL)		
MAX BLDG HEIGHT:	35'	
MAX LOT COVERAGE:	85%	
GREENSPACE		
TOTAL SITE:	N/A	N/A
PARKING		
REQUIRED TOTAL PARKING	3,359 STALLS @ 5/1000	
TOTAL PARKING PROVIDED-RETAIL	2986 STALLS @ 4.57/1000	
HOTEL PARKING	102 STALLS	
STALL SIZE MIN. 9'x18'	STALL SIZE 9'x19'	

HAMBURG CROSSINGS
CAMP ROAD
HAMBURG, NEW YORK
PROPERTY 4146MM181 APRIL 23, 2007

HENDERSON DEVELOPMENT COMPANY, LLC

CONCEPT SITE PLAN

FIGURE 1 - SITE LOCATION AND STUDY AREA





Legend

- Site Location
- Study Area
- Existing Intersection
- Proposed driveway

N

0 1,100 2,200 4,400 Feet

Revised - 09/27/07

PROPOSED HAMBURG CROSSINGS
TOWN OF HAMBURG
ERIE COUNTY, NEW YORK

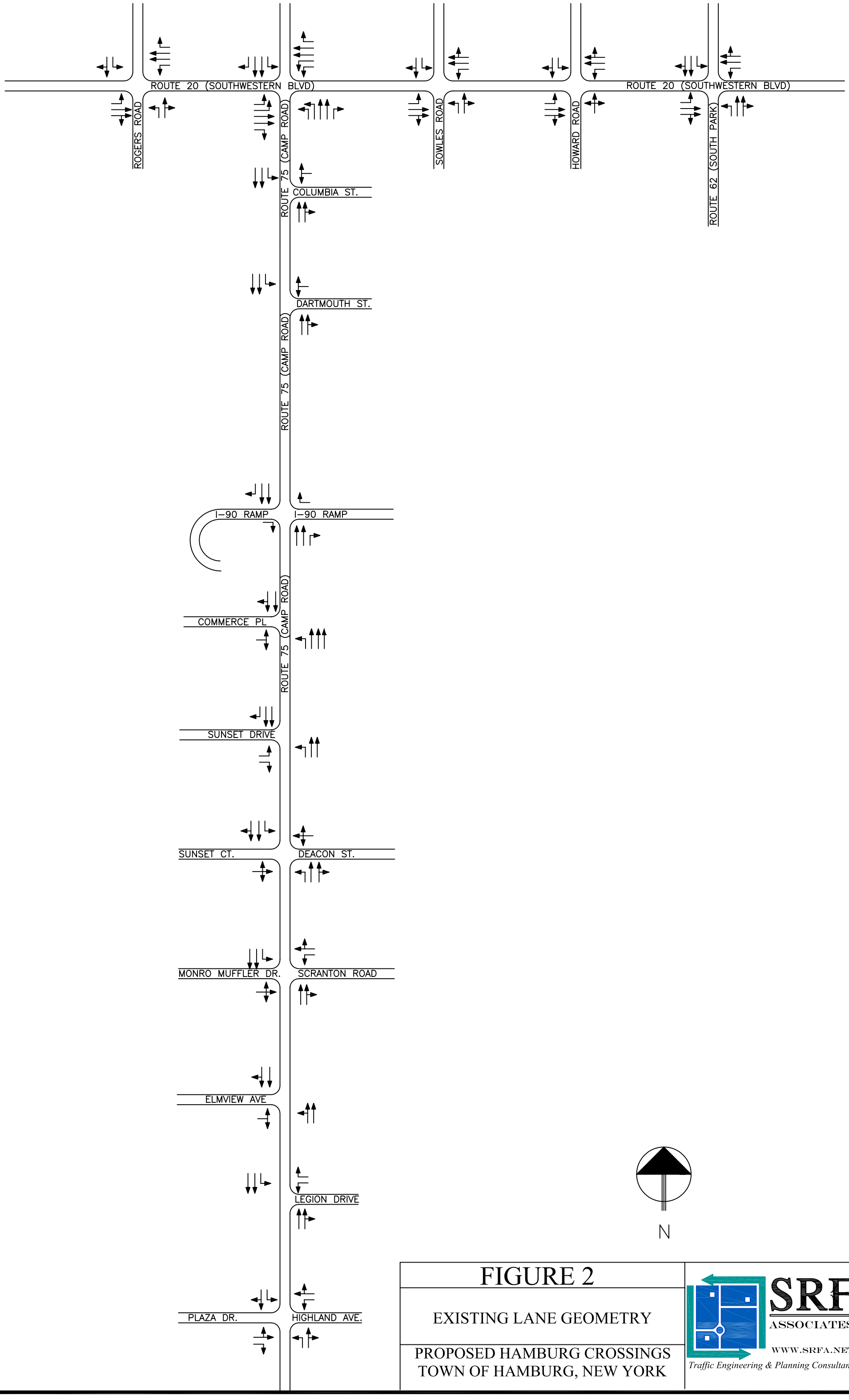


FIGURE 2

EXISTING LANE GEOMETRY

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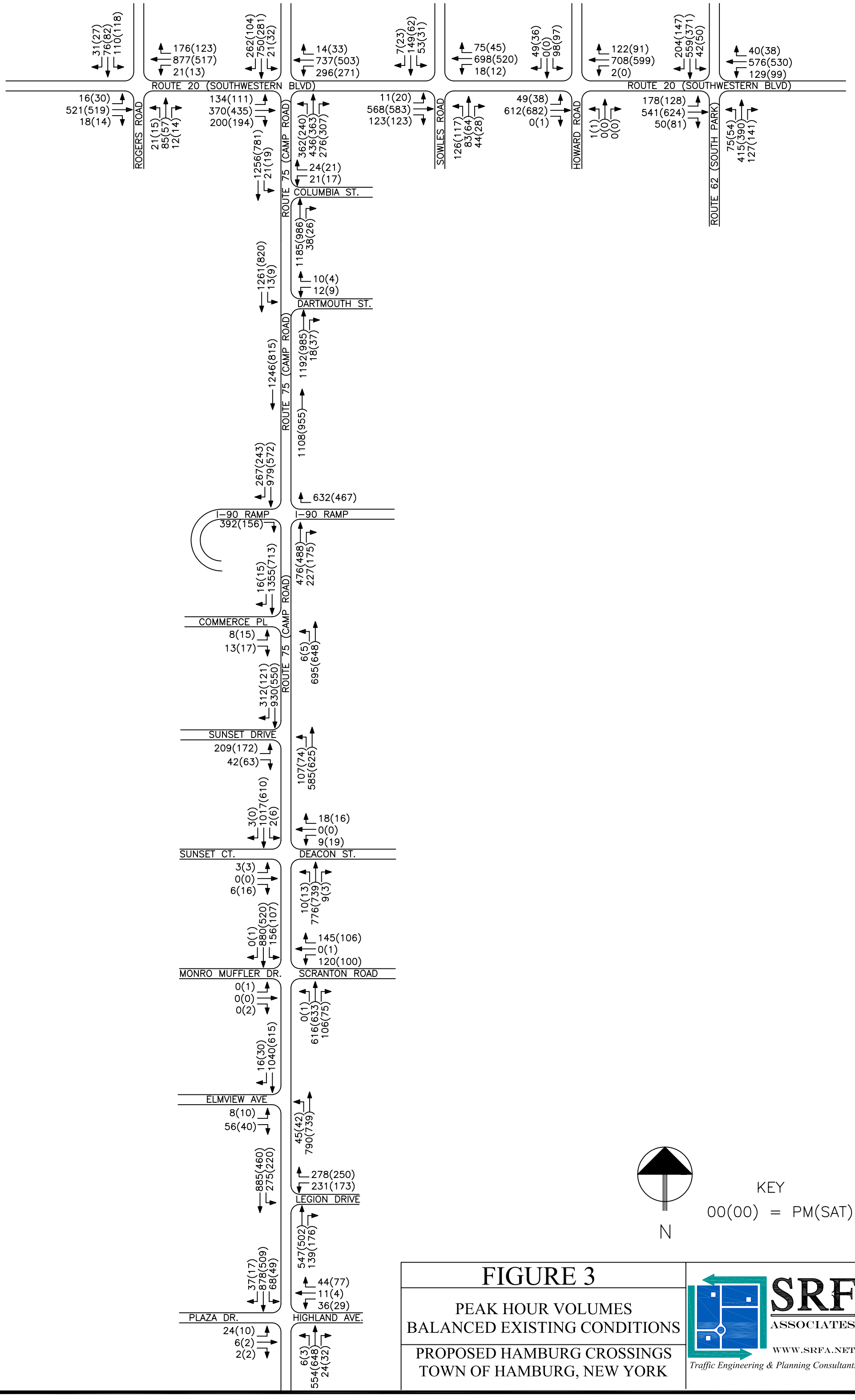


FIGURE 3

PEAK HOUR VOLUMES
BALANCED EXISTING CONDITIONS

PROPOSED HAMBURG CROSSINGS
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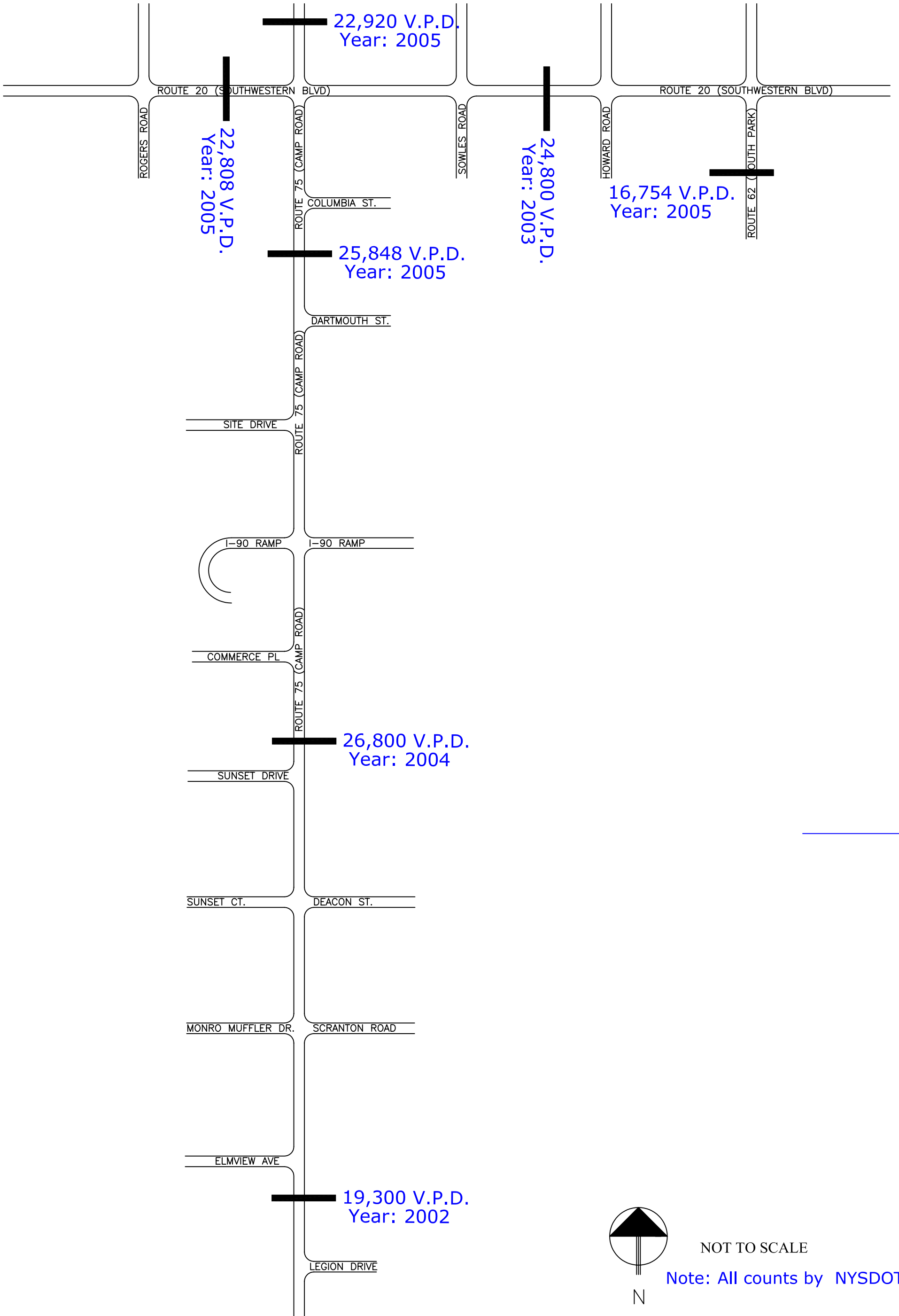


FIGURE 4

AVERAGE DAILY
TRAFFIC VOLUMES

PROPOSED HAMBURG CROSSINGS
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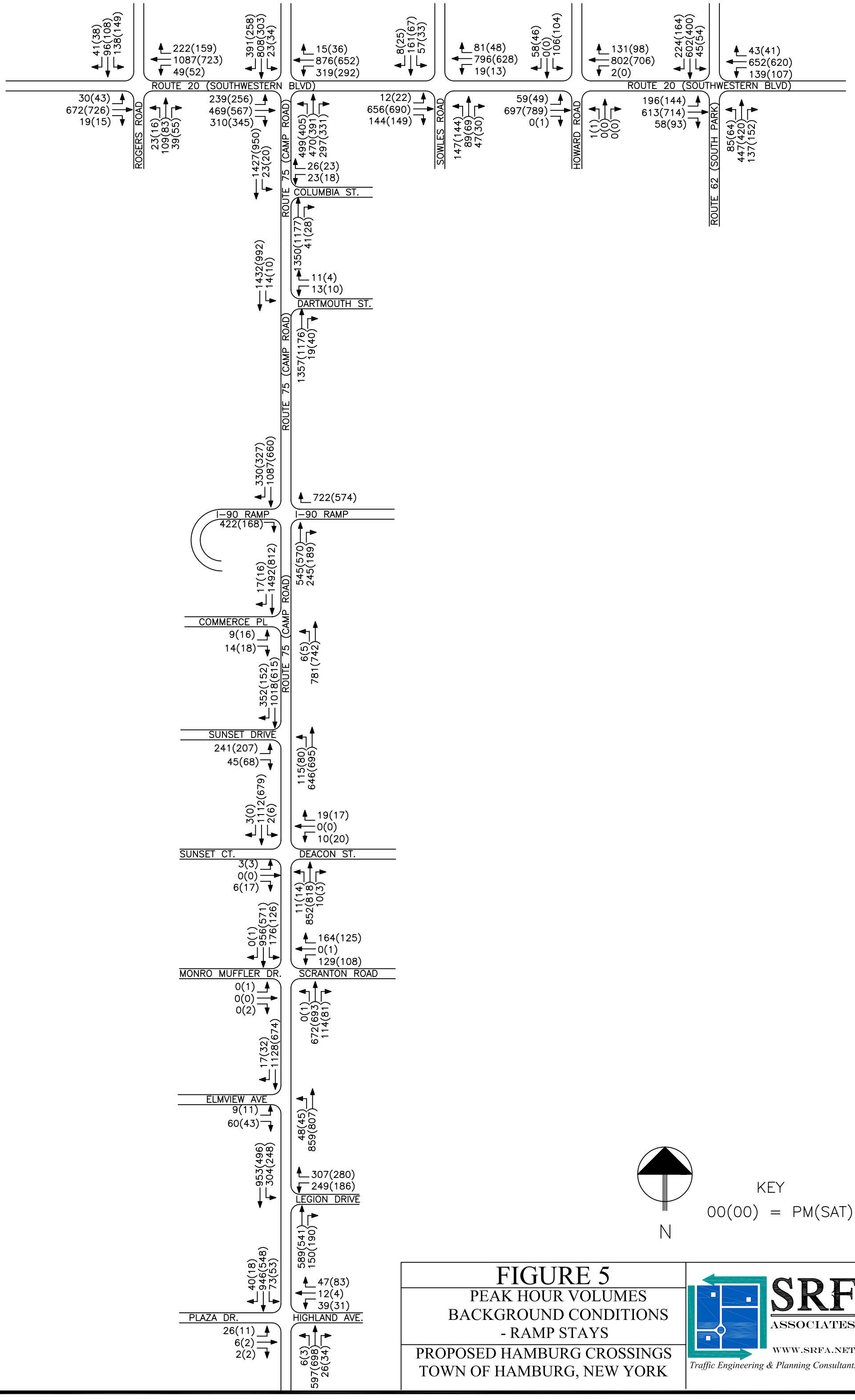


FIGURE 5

PEAK HOUR VOLUMES
BACKGROUND CONDITIONS
- RAMP STAYS

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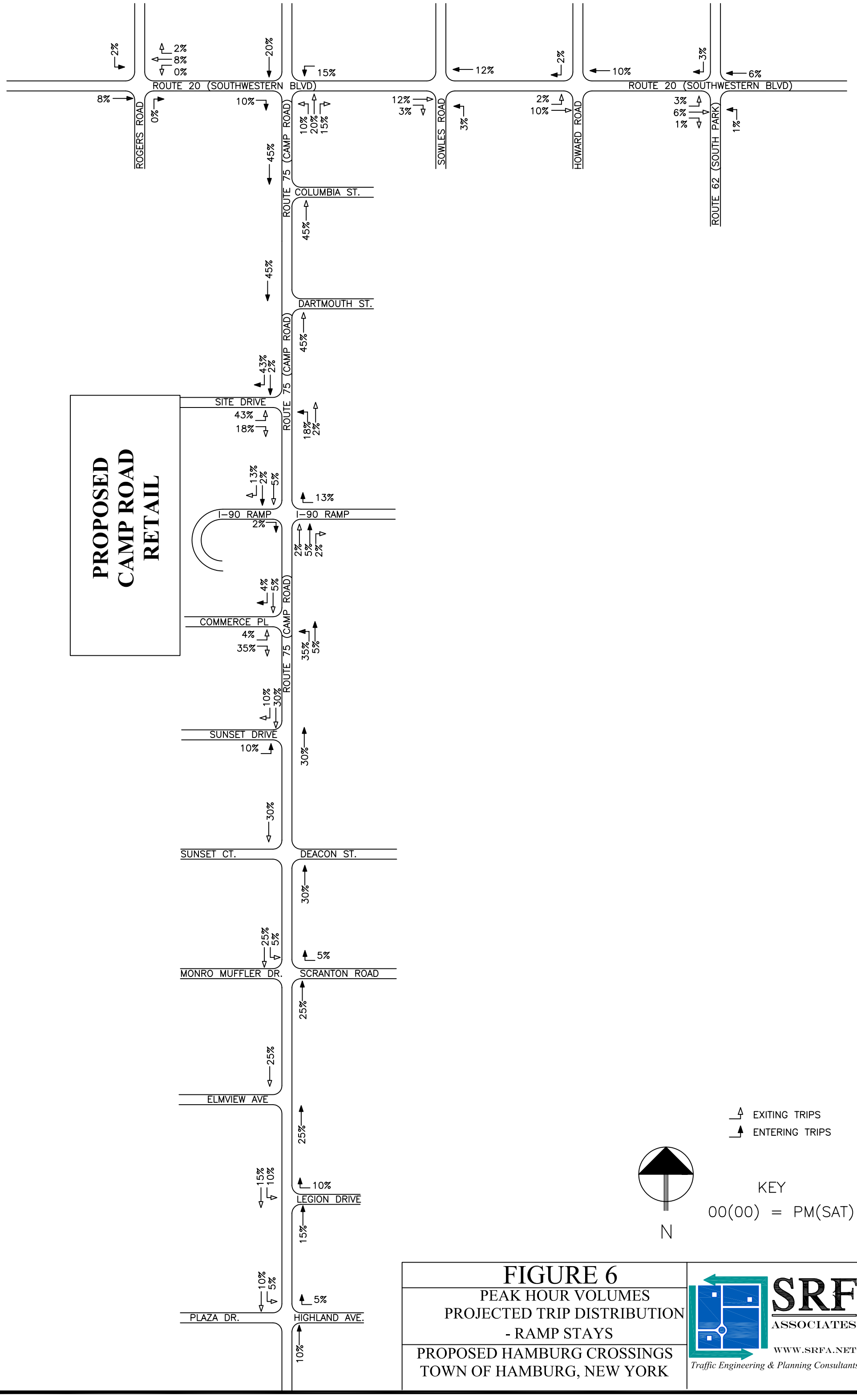


FIGURE 6

PEAK HOUR VOLUMES
PROJECTED TRIP DISTRIBUTION
- RAMP STAYS

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TOWN OF HAMBURG, NEW YORK

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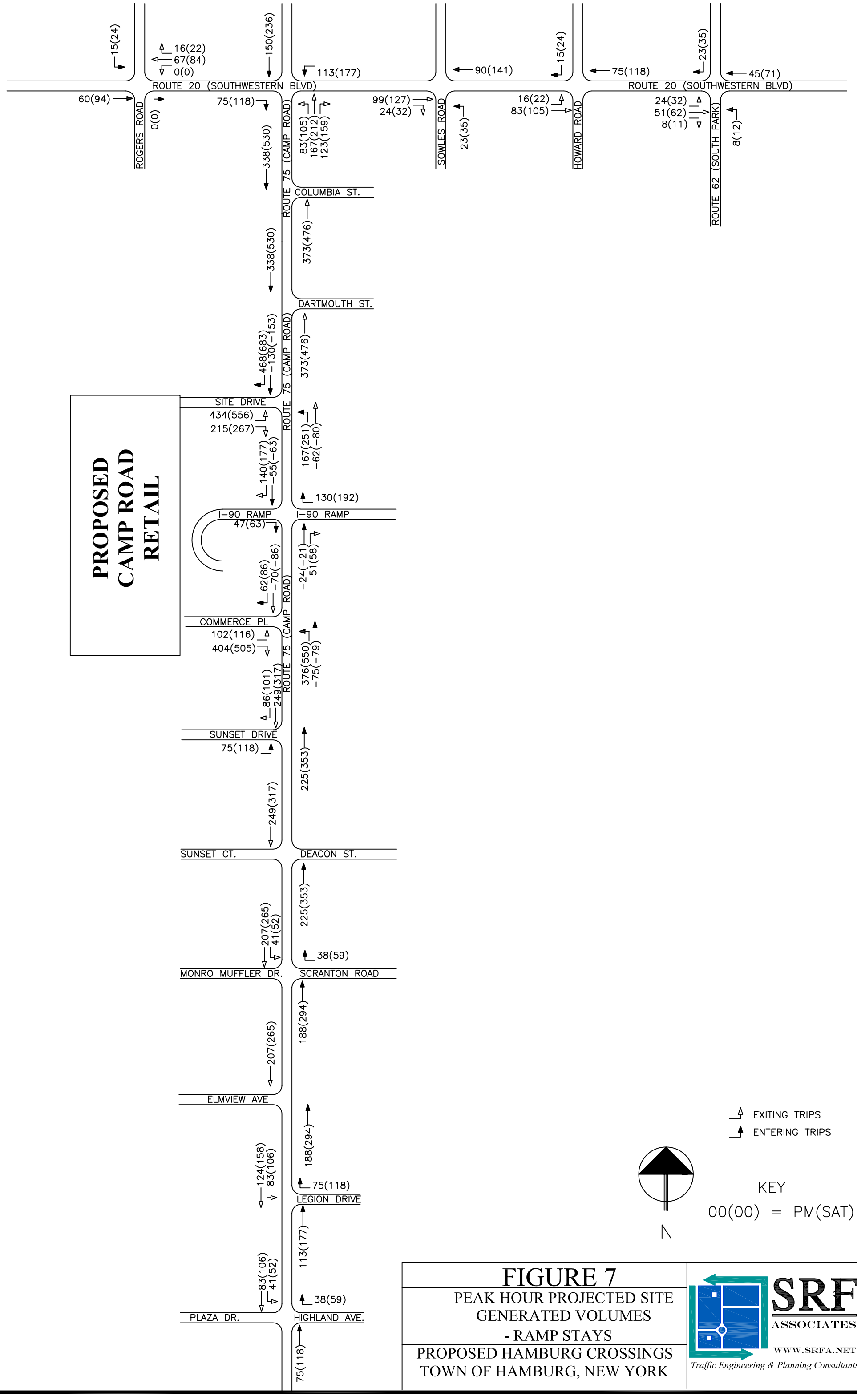


FIGURE 7

PEAK HOUR PROJECTED SITE GENERATED VOLUMES
- RAMP STAYS

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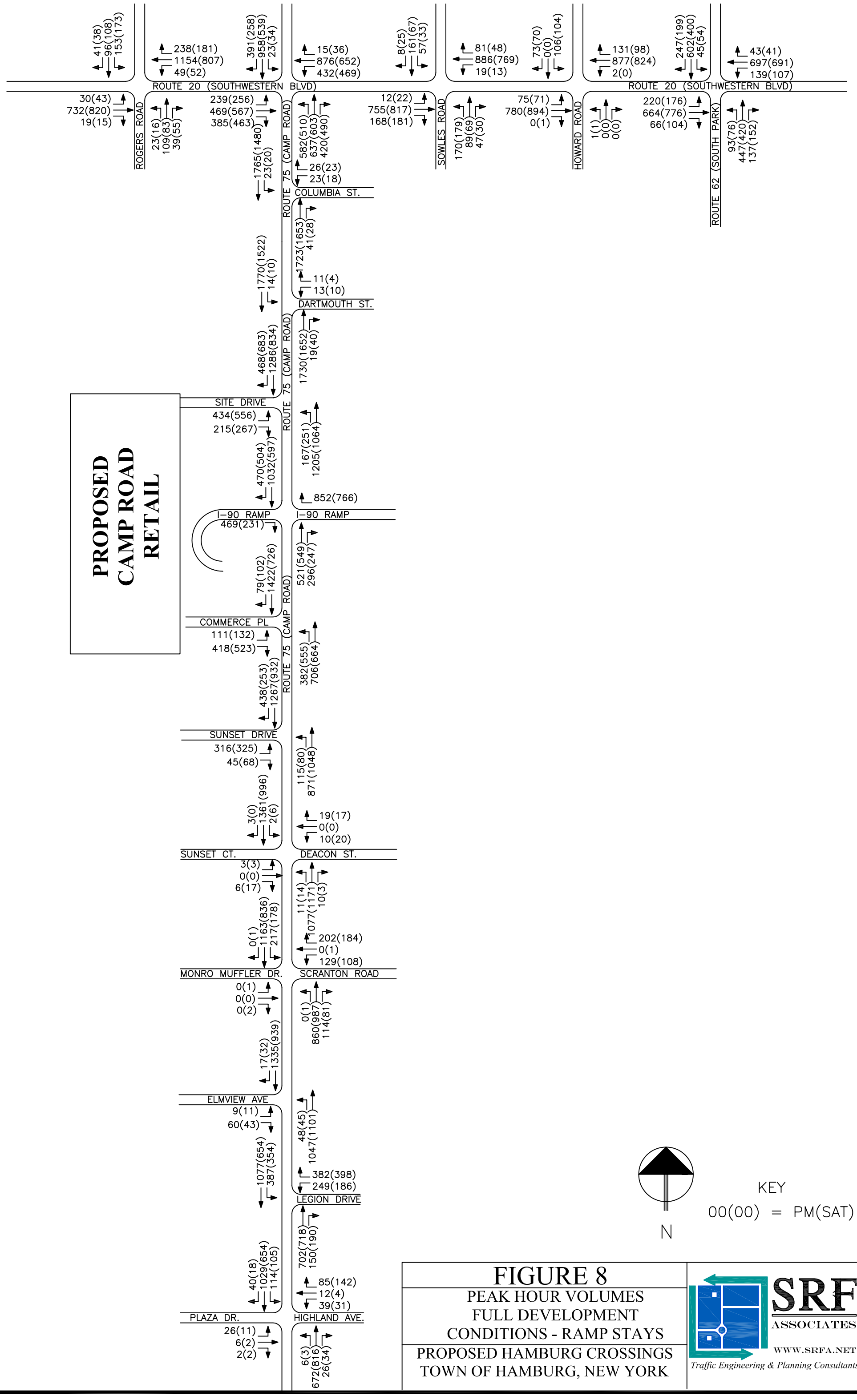


FIGURE 8

PEAK HOUR VOLUMES
FULL DEVELOPMENT
CONDITIONS - RAMP STAYS

PROPOSED HAMBURG CROSSINGS
TOWN OF HAMBURG, NEW YORK

SRF ASSOCIATES
WWW.SRFA.NET
Traffic Engineering & Planning Consultants

Transportation Impact Study
for the proposed

Hamburg Crossings

Town of Hamburg, New York

Revised October 2007

Project No. 26077

Prepared For:

Benderson Development, LLC
570 Delaware Avenue
Buffalo, New York 14202

Prepared By:

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3495 Winton Place
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Rochester, New York 14623

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A2. Miscellaneous Traffic Data and Calculations

A3. Level of Service Criteria/Definitions

A4. Level of Service Calculations: Existing Conditions

A5. Level of Service Calculations: Background Conditions

A6. Level of Service Calculations: Full Development Conditions

A7. Level of Service Calculations: Full Development Conditions with Mitigation

LIST OF REFERENCES

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EXECUTIVE SUMMARY

OVERVIEW

The purpose of this report is to identify the potential traffic impacts associated with the proposed Hamburg Crossings development in the Town of Hamburg, Erie County, New York. This report investigates the existing and projects the future weekday PM and Saturday midday peak hour travel conditions at the proposed site drives and the nearby intersections affected by the development.

The proposed development consists of a shopping center with 652,813± sf of retail space and 115 hotel rooms. Access to the site will be provided via two access points on Route 75; one new driveway located north of I-90 interchange (approximately 300 ft south of Dartmouth Street) and one existing driveway located south of I-90 interchange via Commerce Place. The study area consists of fifteen existing intersections on Route 20 and Route 75.

A background growth rate of 1.5% based on the historical traffic volumes on Route 75 and Route 20 in the vicinity of the proposed site has been applied to the existing traffic volumes in the study area for the five years build-out period. Site generated traffic volumes for the proposed development are projected and distributed to the network based on existing travel patterns, population centers, and existing highway conditions. The operating characteristics of the proposed access points and impacts to the adjacent roadway network are identified and recommendations are provided to minimize any capacity or safety concerns.

CONCLUSIONS AND RECOMMENDATIONS

This report addresses the traffic impact that can be expected from the proposed Hamburg Crossings development in the Town of Hamburg as described in this report. It has been shown that the transportation network can adequately accommodate the projected traffic volumes and resulting impacts to study area intersections, without significant adverse impacts to traffic operations with the recommended mitigation measures in place.

The following list details specific recommendations to be considered as a result of the proposed Hamburg Crossings development:

1. Signal timing adjustments are recommended at the Route 20 / Legion Drive and Route 20 / Route 75 intersections as a result of the proposed development.

2. Construct both site driveways (proposed new site driveway and Commerce Place) on Route 75 with two exiting lanes (one right-turn lane and one left-turn lane) and one entering lane.

3. Install new three-color, multi-phase traffic signals at the proposed new site driveway and Commerce Place on Route 75. The signals should accommodate a

permitted/protected northbound left turn phase and a westbound right turn overlap phase.

4. "No turn on red" signage is recommended on the eastbound approach at proposed new site driveway/Route 75 due to the close proximity to the thruway on ramp.

5. Re-stripe the existing two-way left turn lane to provide a 425' (350' storage and 75' taper) northbound left turn lane on Route 75 at proposed new site driveway.

6. Extend the southbound right turn lane at Route 75/new site driveway to provide 425' storage (350' deceleration/storage plus 75' taper) contingent upon available right of way.

7. Appropriate pedestrian amenities shall be installed as required by NYSDOT.

8. All recommended roadway and intersection improvements on Route 75 are subject to review and approval by NYSDOT.

I. INTRODUCTION

The purpose of this report is to identify the potential traffic impact associated with the proposed Camp Road Retail development on the west side of Route 75 (Camp Road) near the I-90 interchange in the Town of Hamburg, Erie County, New York. The operating characteristics of the proposed access points and impacts to the adjacent roadway network are identified.

The objectives of this report are as follows:

- To adequately assess the traffic impacts associated with the proposed development and identify the level of off-site access and traffic control improvements required to service the project;
- To provide public agencies a comprehensive study which evaluates and documents the traffic impacts and off-site improvements, where warranted;
- To provide a technically sound basis to identify impacts and related mitigation requirements in response to off-site traffic impacts;

In an effort to define traffic impact, this analysis determines the extent of existing traffic conditions, projects background traffic flow including area growth and nearby developments, and projects changes in traffic flow due to operation of the proposed facility.

II. PROJECT LOCATION AND STUDY AREA

The proposed site is bounded by NYS Route 75 to the east, retail type land uses to the north, residential/vacant lands to the west, and I-90 to the south in the Town of Hamburg, Erie County, New York. The site location and study area are illustrated in **Figure 1** – Location Plan (all figures are included in Section IX. at the end of this report).

The study area consists of eleven existing intersections on Route 20 and Route 75. The lands adjacent to the proposed development consist primarily of commercial and residential type uses.

III. STUDY AREA HIGHWAY SYSTEM

The study area roadway system identified for investigation includes the portion of Route 20 between Rogers Road to the west and Route 62 to the east and Route 75 between Route 20 to the north, and Highland Avenue to the south. Eleven (11) existing intersections are studied in detail in this report and are as follows:

1. NYS Route 75/Highland Avenue (signalized)
2. NYS Route 75/Legion Drive (signalized)
3. NYS Route 75/Elmview Avenue (unsignalized)
4. NYS Route 75/Scranton Road (signalized)

5. NYS Route 75/Deacon Street/Sunset Ct (unsignalized)
6. NYS Route 75/Sunset Drive (signalized)
7. NYS Route 75/Commerce Place (unsignalized)
8. NYS Route 75/Thruway Ramp (unsignalized)
9. NYS Route 75/Dartmouth Street (unsignalized)
10. NYS Route 75/Columbia Street (unsignalized)
11. NYS Route 20/ NYS Route 75 (signalized)
12. NYS Route 20/ Rogers Road (signalized)
13. NYS Route 20/ Sowles Road (signalized)
14. NYS Route 20/ Howard Road (signalized)
15. NYS Route 20/ NYS Route 62 (signalized)

The lane geometry at each of the study intersections is depicted in **Figure 2**.

NYS Route 20 (Southwestern Blvd) is owned and maintained by NYSDOT within the vicinity of the project. The highway is functionally classified as an east/west urban principal arterial highway with two lanes in each direction. The posted speed limit west of Route 75 is 50 MPH and to the east of Route 75 is 45 MPH. According to the most recent traffic volume data collected by NYSDOT in 2005, the annual average daily traffic (AADT) along Route 20 between Amsdell Road and Route 75 is 22,808 vehicles per day (vpd).

NYS Route 75 (Camp Road) is owned and maintained by NYSDOT within the vicinity of the project. The highway is functionally classified as a north/south urban minor arterial highway with two travel lanes in each direction, a two-way center left turn lane, and a posted speed limit of 45 mph in the vicinity of the site. According to the most recent traffic volume data collected by NYSDOT in 2005, the annual average daily traffic (AADT) along Route 75 south of Route 20 is approximately 25,848 vehicles per day (vpd).

NYS Route 62 (S Park Avenue) is owned and maintained by NYSDOT. The highway is functionally classified as a north/south urban principal arterial highway with a posted speed limit of 45 mph. NYS Route 62 is generally two lanes in each direction in the vicinity of Southwestern Boulevard. According to the most recent traffic volume data collected by NYSDOT in 2005, the annual average daily traffic (AADT) along Route 75 south of Route 20 is approximately 16,754 vehicles per day (vpd).

Rogers Road (CR 464) is a north-south roadway that provides a connection between Lakeshore Road (NYS Route 5) to the north and Pleasant Avenue (CR 122) to the south. The posted speed limit in the vicinity of the study area is 35 mph. Rogers Road has one travel lane in each direction with left turn lanes at the Southwestern Boulevard intersection.

Howard Road, Columbia Street, Dartmouth Street, Commerce Place, Deacon Street, Elmview Avenue, Sunset Drive, Scranton Road and Highland Avenue are

all local roadways under the jurisdiction of the Town of Hamburg. Sowles Road (County Road 162) and Legion Drive (County Road 134) are under the jurisdiction of Erie County Highway Department.

IV. EXISTING TRAFFIC CONDITIONS

A. Peak Intervals for Analysis

Given the functional characteristics of the corridor and the land use proposed for the site (retail development), the peak hours selected for analysis are the weekday PM and Saturday midday peaks. The combination of site traffic and adjacent through traffic produces the greatest demand during these time periods.

B. Existing Traffic Volume Data

Weekday PM (4:00-6:00pm) and Saturday midday (11:30am-1:30pm) peak traffic counts were collected by SRF & Associates (SRF) at the study area intersections identified above.

Peak hour volumes at six of the study area intersections (Route 20/Sowles Road and the Route 75 intersections with Route 20, Commerce Place, Sunset Drive, Scranton Road and I-90 Thruway drive) were collected on January 05 and 06, 2007. Peak hour volumes at four of the study area intersections (Route 75/Legion Drive intersection and the Route 20 intersections with Rogers Road, Howard Road and Route 62) were collected on January 12 and 13, 2007. Peak hour volume at Route 75/ Highland Avenue was collected on March 2 and 3, 2007. Peak hour volumes at four of the study area intersections (Route 75 intersections with Columbia Street, Dartmouth Street, Deacon Street and Elmview Avenue) were collected on September 07 and 08, 2007. The peak hour traffic periods generally occurred between 4:30 to 5:30 PM and 11:45 to 12:45 PM. Given the varied collection dates of the individual turning movement counts, all traffic volumes were reviewed to confirm the accuracy and relative balance of the collective traffic counts. Minor adjustments to the traffic volumes were made wherever necessary to balance the data within the network within reasonable and expected variations. The existing balanced peak hour volumes are depicted in **Figure 3**.

Existing Average Daily Traffic (ADT) information was obtained from the New York State Department of Transportation (NYSDOT) *Traffic Volume Report 2004 and NYSDOT Traffic Data Viewer Website*. **Figure 4** illustrates the ADT volumes on the study roadways.

C. Field Observations at Study Area Intersections

All intersections included in the project area were observed during both peak intervals to assess existing traffic operating conditions at each

intersection. Signal timing information was collected, at the previously identified signalized intersections, to determine peak hour phasing plans and phase durations during each interval. This information was used to support and/or calibrate capacity analysis models described in detail later in this report.

D. *Existing Accident Investigation*

Based on discussions with NYSDOT and given the completion of NYS Route 20 construction project, an investigation of existing accidents is not required at any intersections along Route 20. The NYSDOT construction project will change the operational and safety characteristics rendering historical accident information not meaningful.

However, accidents along Route 75 from Columbia Street to Highland Avenue were obtained from the Town/Village of Hamburg. The accidents included in the current review collectively covered a three-year time period from April 2004 through April 2007. During this period, 103 reportable accidents were documented at the intersections and segments along Route 75 between Columbia Street and Highland Avenue included in the study area.

The accident history was further investigated to identify high incident areas. Table I summarizes accidents occurring at each intersection and the roadway sections along Route 75. Based on the number of accidents at each intersection and roadway sections along Route 75, accident rates were calculated and compared to the statewide average for similar facilities. Accident rate calculations are included in the Appendix. Intersection rates are listed as accidents per million entering vehicles (ACC/MEV).

TABLE I: SUMMARY OF ACCIDENTS AND COMPARISON OF RATES

Intersection	Total No. of Accidents	Actual Project Rate	State Wide Average Rate
1. Route 75/Highland Avenue	2	0.11	0.60
2. Route 75/Legion Drive	12	0.47	0.29
3. Route 75/Scranton Road	2	0.09	0.46
4. Route 75/Sunset Drive	5	0.21	0.29
5. Route 75/Commerce Place	4	0.13	0.16
6. Route 75/Thruway Ramps	3	0.14	0.16
7. Route 75 between Highland Ave and Legion Dr	28	2.25	2.94
8. Route 75 between Legion Dr and Scranton Rd	8	0.62	2.94
9. Route 75 between Scranton Rd and Sunset Dr	19	1.80	2.94
10.Route 75 between Sunset Dr and Commerce Pl	8	0.91	2.94
11. Route 75 between Thruway Ramp and Columbia St	12	1.15	2.94

Accident (collision) diagrams have been produced for the intersections in the study area along Route 75 to identify specific clusters or accident patterns. An assessment of the information illustrated in the diagrams and Table I may indicate accident trends or specific causes for the identified accident clusters.

All roadway segments along Route 75 between Columbia Street and Highland Avenue and all intersections along Route 75 with the exception of Intersection 2 (Route 75/Legion Drive) had low accident rates compared to the statewide average. All intersections exhibiting greater than 5 accidents with accident rates that exceed the statewide average rate over the assessment period are discussed in detail below:

#2: Route 75/Legion Drive

A total of twelve (12) accidents were documented during the investigation period (3 years). The calculated accident rate is 62% higher than the statewide average for other similar 3-legged intersections. . The majority of accidents involved rear-end (5) collisions. The remaining accidents were categorized as left turn (2), right angle (3), right turn (1), and sideswipe (1). Notable accident clusters at this location include:

- 4 rear end collisions (westbound)
- 3 westbound right angle collisions with northbound through traffic

V. FUTURE AREA DEVELOPMENT AND LOCAL GROWTH

Construction of the proposed Hamburg Crossings development in Hamburg is anticipated within five years. The Town of Hamburg was contacted to discuss current projects within the project study area that are currently under construction and/or approved. The following developments are approved/under construction in the study area:

- Wellington Woods Subdivision that consists of 54 single family residential units near the Lakeview Road/Lakeshore Road intersection,
- Treehaven Subdivision that consists of 90 single family residential units and 43 patio homes near the Route 5/Lakeshore Road intersection,
- Woodstream Estates Subdivision that consists of 85 single family residential units to the north of the site along Rogers Road (south of Cloverbank Road).
- A new Wal★Mart store on the northeast corner of Route 20/Rogers Road.

Therefore, traffic volumes related to all four of these developments were included in the background traffic conditions.

To account for normal increases in background traffic growth, including any unforeseen developments in the project study area, a growth rate of 1.5% per year has been applied to the existing traffic volumes in the study area for the five years build-out period. The background traffic volumes are depicted in **Figure 5**.

VI. PROPOSED DEVELOPMENT

A. Description

The proposed development is located along the west side of Route 75 near the I-90 interchange in the Town of Hamburg, Erie County, New York. The proposed development consists of a shopping center with 652,813± sf of retail space and 115 hotel rooms.

Access to the site will be provided via two access points on Route 75; one new driveway located north of I-90 interchange (approximately 300 ft south of Dartmouth Street) and one existing driveway located south of I-90 interchange via Commerce Place.

B. Site Traffic Generation

The next step in the evaluation is to determine the additional traffic attributable to the development as defined, vehicle trips entering and exiting the site. Trip Generation, 7th Edition is used as a reference for this information. The trip rate for the peak hour of the generator may or may not coincide in time or volume with the trip rate for the peak hour of adjacent street traffic. Volumes generated during the peak hour of adjacent street traffic, in this case, the weekday PM and Saturday midday peaks, represent a more critical volume when analyzing the capacity of the system; those intervals will provide the basis of this analysis.

The volume of traffic generated by a site is dependent on the intended land use and size of the development. Trip generation can be defined as an estimate of the number of trips generated by a specific building or land use. These trips represent the volume of new traffic added to the roadways due to the proposed development.

The volume of site-generated traffic at the proposed access drives has been estimated based on data contained in the Trip Generation manual. All trip generation calculations are included in Appendix A2 of this report. Table II shows the total site generated trips for the weekday PM and Saturday midday peak hours for the proposed development.

TABLE II: SITE GENERATED TRAFFIC VOLUMES

DESCRIPTION	PM PEAK		SAT PEAK	
	ENTER	EXIT	ENTER	EXIT
Retail - 652,813 ± sf (Shopping Center)	1037	1123	1524	1407
115 Rooms Hotel	36	32	46	37
Total	**1073**	**1155**	**1570**	**1444**

C. Determination of Pass-by Trips

For certain types of developments the total number of driveway trips generated is different from the amount of new traffic added to the adjacent highway network by the generator. Retail-oriented developments (such as shopping centers, supermarkets, home improvement stores, discount stores, restaurants, banks, service stations, and convenience markets etc.) often locate adjacent to busy streets in order to attract the motorists already passing the site on the adjacent street system. These sites attract a portion of their trips from traffic passing the site.

Trips generated by retail-type uses, such as the Hamburg Crossings development, can be broken down into two categories: pass-by trips and primary trips. The "pass-by" traffic refers to the amount of existing traffic already on the roadway adjacent to the site (in this case Route 75) that, as it "passes by" the site, will enter the site driveways to patronize the various retail uses. That portion of the generated traffic attracted to the site would pass on the adjacent street system (Route 75) whether or not the site is developed and thus produces no new traffic at study area intersections other than the site driveways.

The ITE suggests that 34% and 26% of the weekday PM and Saturday midday peak hour traffic entering the proposed site comes from the existing traffic stream on Route 75. Based on the above information, consideration of the location of the proposed site, and the amount of traffic currently passing the site, pass-by rates of 30% and 25% were used during the PM and Saturday peak periods for analysis purposes in this report. These percentage reductions were applied to the total site generated traffic. Table III shows the pass-by trip percentages that are applied to the site generated volumes and the resulting "new" traffic that will be added to the existing highway system for the weekday PM and Saturday midday peak periods.

TABLE III: PASS-BY & PRIMARY TRIPS

DESCRIPTION	PM PEAK		SAT PEAK	
	ENTER	EXIT	ENTER	EXIT
Total site generated volumes	1073	1155	1570	1444
Pass-by Trips - 30% (25%)	*-322*	*-347*	*-393*	*-361*
Resulting Primary Trips	**751**	**808**	**1177**	**1083**

All trip generation calculations are included in the Appendix of this report.

D. Site Traffic Distribution

The cumulative effect of site traffic on the transportation network is dependent on the origins and destinations of that traffic and the location of the access drives serving the site.

The proposed arrival/departure distribution of traffic to be generated at this site is considered a function of several parameters, including the following:

- Population centers in the area
- Existing highway network
- Existing traffic conditions and controls
- Existing travel patterns throughout the study area
- Site access drive locations

Figure 6 shows the anticipated trip distribution pattern percentages for the proposed development and **Figure 7** illustrates the peak hour site generated traffic based on those percentages including pass-by trips. The trip generation, distribution, and pass-by rates were reviewed and approved by NYSDOT.

E. Projected Full Development Traffic Volumes

The projected full development design hour traffic volumes were developed for each peak by combining the background traffic conditions (Figure 5), and projected site generated volumes (Figure 7) to yield the total traffic conditions expected at full development. **Figure 8** shows the total weekday PM and Saturday midday peak hour volumes anticipated for the proposed development under full build out conditions.

VII. OPERATIONAL ANALYSES

A. Capacity Analyses

Capacity analysis is a technique used for determining a measure of effectiveness for a section of roadway and/or intersection based on the number of vehicles during a specific time period. The measure of

effectiveness used for the capacity analysis is referred to as a Level of Service (LOS). Levels of Service are calculated to provide an indication of the amount of delay that a motorist experiences while traveling along a roadway or through an intersection. Since the most amount of delay to motorists usually occurs at intersections, the capacity analysis specifically focuses on intersections.

Six Levels of Service are defined for analysis purposes. They are assigned letter designations, from "A" to "F", with LOS "A" representing operating conditions with the least time delay. LOS "F" is the least desirable operating condition where longer delays are experienced by motorists. Suggested ranges of service capacity and an explanation of Levels of Service are included in the Appendix.

The standard procedure for capacity analysis of signalized and unsignalized intersections is outlined in the 2000 Highway Capacity Manual (HCM 2000). Traffic analysis software, SYNCHRO (Build 614), which is based on procedures and methodologies contained in the HCM 2000, was used to analyze operating conditions at study area intersections. The procedure yields a Level of Service (LOS) based on the HCM 2000 as an indicator of how well intersections operate. Existing operating conditions during the peak study periods are evaluated to determine a basis for comparison with the projected future conditions. Existing operating conditions are documented in the field and modeled using traffic analysis software. The traffic analysis models are calibrated based on the actual field observations.

Table IV indicates the level of service results for existing, background and full development conditions for the proposed development. The discussion following the table summarizes the existing, background, and future capacity conditions.

TABLE IV
INTERSECTION CAPACITY ANALYSIS RESULTS

INTERSECTION		***EXISTING CONDITIONS***		***BACKGROUND CONDITIONS***		***FULL DEVELOPMENT CONDITIONS***		***FULL DEVELOPMENT - IMPROVEMENTS***	
		PM	***SAT***	***PM***	***SAT***	***PM***	***SAT***	***PM***	***SAT***
Route 75(Lake Street) / Highland Avenue (S)									
EB - Highland Ave	Left	E	D	E	D	E	D	NA	NA
	Thru/Right	D	C	D	C	D	C		
WB - Highland Ave	Left	E	D	E	D	E	D		
	Thru/Right	C	B	C	B	C	B		
NB - Route 75	Left	A	A	A	A	A	A		
	Thru/Right	A	A	A	A	A	A		
SB - Route 75	Left	A	A	A	A	A	A		
	Thru/Right	A	A	A	A	A	A		
Overall LOS / Delay in sec/veh		A(7.5)	A(5.5)	A(8.1)	A(5.8)	A(9.7)	A(7.4)		

INTERSECTION		EXISTING CONDITIONS		BACKGROUND CONDITIONS		FULL DEVELOPMENT CONDITIONS		FULL DEVELOPMENT - IMPROVEMENTS	
		PM	SAT	PM	SAT	PM	SAT	PM	SAT
Route 75(Camp Road) / Legion Drive (S)									
WB - Legion Dr	Left	C	C	C	C	C	C	NA	C
	Right	A	A	A	A	B	B		B
NB - Route 75	Thru/Right	B	B	B	B	B	B		B
SB - Route 75	Left	A	A	B	B	C	D		C
	Thru	A	A	A	A	A	A		A
Overall LOS / Delay in sec/veh		B(11.2)	A(9.6)	B(13.0)	B(10.5)	B(16.5)	B(16.4)		B(15.6)
Route 75(Camp Road) / Elmview Ave (U)									
EB - Elmview Ave	Left/Thru/Right	C	C	D	C	D	C	NA	NA
NB - Route 75	Left	A	A	A	A	A	A		
Route 75(Camp Road) / Scranton Road (S)									
EB - Scranton Rd	Left/Thru/Right	-	A	-	A	-	B	NA	NA
WB - Scranton Rd	Left	B	B	B	B	C	C		
	Thru/Right	A	A	A	A	B	B		
NB - Route 75	Left/Thru/Right	A	A	A	A	A	A		
SB - Route 75	Left	A	A	B	A	C	B		
	Thru/Right	A	A	A	A	A	A		
Overall LOS / Delay in sec/veh		A(5.9)	A(6.1)	A(6.3)	A(6.4)	A(8.0)	A(7.8)		
Route 75(Camp Road) / Sunset Ct. / Deacon St. (U)									
EB - Sunset Ct.	Left/Thru/Right	C	B	C	B	C	C	NA	NA
WB - Deacon St.	Left/Thru/Right	B	C	C	C	C	E		
NB - Route 75	Left	B	A	B	A	B	B		
SB - Route 75	Left	A	A	A	B	B	B		
Route 75(Camp Road) / Sunset Drive (S)									
EB - Sunset Drive	Left	D	D	D	D	D	D	NA	NA
	Right	B	B	B	B	B	B		
NB - Route 75	Left	A	A	A	A	B	A		
	Thru	A	A	A	A	A	A		
SB - Route 75	Thru	B	A	B	A	B	B		
	Right	A	A	A	A	A	A		
Overall LOS / Delay in sec/veh		B(10.5)	A(9.5)	B(11.5)	B(10.4)	B(14.6)	B(14.0)		
Route 75(Camp Road) / Commerce Place (U)								**SIGNAL**	
EB - Commerce Place	Left	NA	NA	NA	NA	NA	NA	D	D
	Right							D	B
	Left/Right	E	C	E	C	F(*)	F(*)	-	-
NB - Route 75	Left	B	A	B	A	F(91.5)	C	D	D
	Thru	A	A	A	A	A	A	A	A
SB - Route 75	Thru/Right	A	A	A	A	A	A	C	C
Overall LOS / Delay in sec/veh		-	-	-	-	-	-	C(29.3)	C(21.0)
Route 75(Camp Road) / Proposed Site Drive (U)								**SIGNAL**	
EB - Proposed Site Dr	Left	NA	NA	NA	NA	F(*)	F(*)	C	C
	Right					D	D	B	A
NB - Route 75	Left					C	C	C	C
	Thru					A	A	B	B
SB - Route 75	Thru					A	A	C	D
	Right					A	A	C	D
Overall LOS / Delay in sec/veh						-	-	C(26.5)	D(35.8)

INTERSECTION		EXISTING CONDITIONS		BACKGROUND CONDITIONS		FULL DEVELOPMENT CONDITIONS		FULL DEVELOPMENT - IMPROVEMENTS	
		PM	SAT	PM	SAT	PM	SAT	PM	SAT
Route 75(Camp Road) / Dartmouth Street (U)									
WB - Dartmouth	Left/Thru/Right	C	C	D	D	E	F(52.1)	NA	NA
SB - Route 75	Left	B	B	B	B	C	C		
Route 75(Camp Road) / Columbia Street (U)									
WB - Columbia St	Left/Thru/Right	D	C	E	C	F(68.8)	E	NA	NA
SB - Route 75	Left	B	B	B	B	C	C		
Route 20(Southwestern Blvd) / Route 75 (S)									
EB - Route 20	Left	E	E	E	F(86.8)	E	F(86.8)	NA	E
	Thru	D	E	D	E	D	E		E
	Right	B	A	C	B	C	C		C
WB - Route 20	Left	E	E	E	E	E	F		E
	Thru	D	D	D	D	D	D		D
	Right	A	A	A	A	A	A		A
NB - Route 75	Left	D	E	E	D	E	D		E
	Thru	C	B	C	C	C	C		C
	Right	A	A	A	A	A	A		B
SB - Route 75	Left	E	E	E	E	E	E		E
	Thru	D	C	D	C	E	D		D
	Right	B	A	C	B	C	C		C
Overall LOS / Delay in sec/veh		D(37.7)	D(37.3)	D(42.6)	D(41.1)	D(50.2)	D(44.7)		D(42.5)
Route 20(Southwestern Blvd) / Rogers Road (S)									
EB - Route 20	Left	A	A	A	A	A	A	NA	NA
	Thru/Right	A	A	A	A	A	A		
WB - Route 20	Left	A	A	A	A	A	A		
	Thru	A	A	A	A	A	A		
	Right	A	A	A	A	A	A		
NB - Rogers Road	Left	B	B	B	B	B	B		
	Thru/Right	B	A	B	B	B	B		
SB - Rogers Road	Left	C	B	C	C	C	C		
	Thru/Right	B	A	B	B	B	B		
Overall LOS / Delay in sec/veh		A(7.3)	A(6.2)	A(9.1)	A(7.6)	A(9.6)	A(8.3)		
Route 20(Southwestern Blvd) / Sowles Road (S)									
EB - Route 20	Left	A	A	A	A	A	A	NA	NA
	Thru/Right	A	A	A	A	A	A		
WB - Route 20	Left	A	A	A	A	A	A		
	Thru/Right	A	A	A	A	A	A		
NB - Sowles Road	Left	D	D	D	D	D	D		
	Thru/Right	C	C	C	C	B	C		
SB - Sowles Road	Left	C	C	C	C	C	C		
	Thru/Right	C	C	C	C	C	C		
Overall LOS / Delay in sec/veh		B(12.4)	A(9.8)	B(13.2)	B(10.5)	B(13.8)	B(11.7)		

INTERSECTION		EXISTING CONDITIONS		BACKGROUND CONDITIONS		FULL DEVELOPMENT CONDITIONS		FULL DEVELOPMENT - IMPROVEMENTS	
		PM	SAT	PM	SAT	PM	SAT	PM	SAT
Route 20(Southwestern Blvd) / Howard Road (S)									
EB - Route 20	Left	A	A	A	A	A	A	NA	NA
	Thru/Right	A	A	A	A	A	A		
WB - Route 20	Left	A	-	A	-	A	-		
	Thru/Right	A	A	A	A	A	A		
NB - Howard Rd	Left/Thru/Right	C	C	C	C	C	C		
SB - Howard Rd	Left	D	E	D	E	D	E		
	Thru/Right	A	A	A	A	A	A		
Overall LOS / Delay in sec/veh		A(5.6)	A(6.5)	A(5.8)	A(6.7)	A(5.7)	A(6.4)		
Route 20(Southwestern Blvd) / Route 62(South Park) (S)									
EB - Route 20	Left	D	D	E	D	E	D	NA	NA
	Thru/Right	C	C	C	C	C	C		
WB - Route 20	Left	D	D	E	D	E	D		
	Thru/Right	D	C	D	C	D	C		
NB - Route 62	Left	C	B	C	C	C	C		
	Thru/Right	C	C	C	C	C	C		
SB - Route 62	Left	B	B	C	C	C	C		
	Thru/Right	D	C	D	C	D	C		
Overall LOS / Delay in sec/veh		C(34.3)	C(28.8)	D(38.0)	C(31.8)	D(40.3)	C(33.7)		

* Calculated delay exceeds two minutes per vehicle. Drivers are likely to accept shorter gaps in traffic to make left turns when this occurs.

The following intersections operate at level of services (LOS) "E" or better under existing, background, and future conditions and no changes in LOS are anticipated on any of the movements between the background and full development conditions. No improvements are warranted or recommended at these intersections:

- Route 75(Lake Street)/Highland Avenue,
- Route 75/Elmview Avenue,
- Route 20/Sowles Road,
- Route 20/Rogers Road,
- Route 20/Howard Road,
- Route 20/Route 62

The following intersections experienced decreases in levels of service related to borderline conditions as a result of the proposed Hamburg Crossings development. (i.e. the delay was approaching thresholds that define differences in the letter designations for level of service). All movements are projected to operate at LOS "D" or better without any mitigation:

- Route 75/Scranton Road,
- Route 75/Sunset Drive

The remaining intersections are discussed in detail below.

Route 75 / Legion Drive
All movements at the Route 75/Legion Drive intersection operate at average LOS "C" or better under existing, background, and future conditions with the exception of the southbound left turn movement during the SAT peak hour which operates at LOS "D" under full development condition.

The southbound left turn movement is projected to decline from LOS "B" to "D" during the SAT peak hour between background and full development conditions. This LOS change can be mitigated via signal timing adjustments to maintain LOS "C" or better on all approaches.

Route 75 / Sunset Ct/ Deacon Street
All movements at the Route 75/Sunset Ct/Deacon Street intersection operate at average LOS "C" or better under existing, background, and future conditions with the exception of the westbound approach during the SAT peak hour which operates at LOS "E" under full development condition.

The westbound approach is projected to decline from LOS "C" to "E" during the SAT peak hour between background and full development conditions. A preliminary review of the Federal MUTCD Traffic Signal Warrants indicates that it is unlikely that any of the two key warrants (four hour volumes and eight hour volumes) would be met at this intersection. Therefore, no mitigation is recommended at this intersection.

Route 75 / Commerce Place
All movements at the Route 75/Commerce Place intersection operate at average levels of service (LOS "C" or better) with the exception of the eastbound approach which operates at LOS "E" during the PM peak hour under existing and background conditions.

The full development analysis results indicate that the eastbound approach exiting the site driveway (Commerce Place) to Route 75 will operate at LOS "F" at full development with long delays during both peak periods. The failing levels of service and high turning volumes indicate a potential need for a traffic signal at this location. Federal MUTCD Traffic Signal warrants for installation of a traffic signal were evaluated (see section D. below) and all of the volume related warrants are projected to be met at full development of the site as proposed. Therefore, the following mitigation is proposed at this location:

- Install a new traffic signal,
- Provide two exiting and one entering lane at Commerce Place

With the recommended mitigation in place, the intersection is projected to operate at LOS "D" or better on all movements during both peak periods.

Route 75 / Proposed Site Driveway

The capacity analysis results indicate that the eastbound left turn movement exiting the site driveway to Route 75 will operate at LOS "F" at full development with long delays during both peak periods. The failing levels of service and high turning volumes indicate a potential need for a traffic signal at this location. Federal MUTCD signal warrants for installation of a traffic signal were evaluated (see section D. below) and all of the volume related warrants are projected to be met at full development of the site as proposed. Therefore, the following mitigation is proposed at this location:

- Provide an northbound left-turn lane via pavement re-striping,
- Extend the southbound right turn lane at Route 75/proposed site driveway to provide 425' storage (350' deceleration/storage plus 75' taper),
- "No turn on red" signage is recommended on the eastbound approach due to the close proximity to the Thruway on ramp.
- Install a new traffic signal,
- Provide two exiting and one entering lane at the new site driveway

With the recommended mitigation in place, the intersection is projected to operate at LOS "D" or better on all movements during both peak periods.

Route 75 / Dartmouth Street

All movements at the Route 75/Columbia Street intersection operate at LOS "C" or better under existing, background, and future conditions with the exception of the westbound approach under background and full development conditions. The westbound approach is projected to decline from LOS "D" to "E" during the PM peak hour and from LOS "D" to "F" during the SAT peak hour between the background and full development conditions.

A preliminary review of the Federal MUTCD Traffic Signal Warrants indicates that it is unlikely that any of the two key warrants (four hour volumes and eight hour volumes) would be met at this intersection. Therefore, no mitigation is recommended at this intersection.

Route 75 / Columbia Street

All movements at the Route 75/Columbia Street intersection operate at LOS "D" or better under existing, background, and future conditions with the exception of the westbound approach under background and full development conditions. The westbound approach is projected to decline from LOS "E" to "F" during the PM peak hour and from LOS "C" to "E"

during the SAT peak hour between background and full development conditions.

A preliminary review of the Federal MUTCD Traffic Signal Warrants indicates that it is unlikely that any of the two key warrants (four hour volumes and eight hour volumes) would be met at this intersection. Therefore, no mitigation is recommended at this intersection.

Route 75 / Route 20

All movements on Route 75/Route 20 intersection operate at LOS "E" or better under existing, background, and future conditions with the exception of the eastbound left turn movement under background and full development conditions and westbound left turn movement under full development conditions which operate at LOS "F" during the SAT peak hour.

The southbound through movement is projected to decline from LOS "D" to "E" during the PM peak hour and from LOS "C" to "D" during the Saturday peak hour between background and full development conditions. The eastbound and the southbound right turn movements decline from LOS "B" to "C" and the westbound left turn movement declines from LOS "E" to "F" during the Saturday peak hour. These LOS changes can be mitigated via signal timing adjustments to maintain LOS "E" or better on all approaches.

B. *Left-Turn Treatment Warrants*

Volume warrants for a northbound left turn lane at the proposed new site driveway on Route 75 were investigated using the Transportation Research Board's NCHRP Report 279, Intersection Channelization Design Guide, 1985. Provisions for left turn lane facilities should be established where traffic volumes are high enough and safety considerations are sufficient to warrant the additional lane.

The combination of projected volumes turning left into the proposed new site driveway on Route 75 indicate that a northbound left turn lane is warranted during both peak periods under full development conditions.

C. *Sight Distance Investigation*

Sight distances were investigated at the proposed site driveway along Route 75. Sight distance is provided at intersections to allow drivers to perceive the presence of potentially conflicting vehicles. This should occur in sufficient time for a motorist to stop or adjust their speed, as appropriate, to avoid a collision at the intersection. Sight distance is also provided at intersections to allow the drivers of stopped vehicles a sufficient view of the intersecting highway to anticipate and avoid potential incidents. If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have

sufficient sight distance to anticipate and avoid collisions. To enhance traffic operations, intersection sight distances that exceed stopping sight distances are desirable along the major road.

A Policy on Geometric Design of Highways and Streets (AASHTO "Green Book") was used as a reference to establish the required stopping sight distance and desirable intersection sight distance for the proposed site drive.

Required stopping distances and desirable intersection sight distances are based on the design speed for a given section of roadway; generally the design speed is the posted speed limit plus 5 mph. In this case, the posted speed limit along Route 75 in the vicinity of the site is 45 mph. Hence a design speed of 50 mph was used. The required stopping distance and desirable intersection sight distance based on the design speed are shown in Table V.

TABLE V
SIGHT DISTANCE REQUIREMENTS AND MEASUREMENTS

INTERSECTION	Desirable Intersection Sight Distance for Left Turn from Stop (ft)	Required Stopping Sight Distance (ft)	Available Sight Distance (ft) to the:	
			Left	Right
Proposed Site Dr. @ Route 75	555'	425'	>700'	>700'

The available sight distances from the proposed site driveway on Route 75 exceed the minimum intersection sight distance and stopping sight distance at the design speed.

D. Traffic Signal Warrant Investigation

A potential capacity deficiency has been identified at the NYS Route 75/ new site driveway and NYS Route 75/Commerce Place intersections during the PM peak hour under full development condition as noted in the previous section of the report. Traffic signals can mitigate this specific type of deficiency by providing controlled right-of-way to all approaches of the intersection. A detailed signal warrant investigation was performed to determine if threshold values are met

The need for a traffic signal is determined by comprehensive investigation of existing and projected traffic conditions and physical characteristics at the location. The Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) published by the Federal Highway Administration (FHWA) in 2004 has set forth warrants to investigate the need for a traffic control signal. The eight warrants are as follows:

Warrant 1	Eight-Hour vehicular volume
Warrant 2	Four-Hour vehicular volume
Warrant 3	Peak Hour
Warrant 4	Pedestrian Volume
Warrant 5	School Crossing
Warrant 6	Coordinated Signal System
Warrant 7	Crash Experience
Warrant 8	Roadway Network

These warrants and their criteria are fully explained in the MUTCD. The investigation will first focus on all warrants that are based exclusively on traffic volumes.

Warrant 1 is subdivided into Condition A and Condition B. The Minimum Vehicular Volume, Condition A, is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal. The Interruption of Continuous Traffic, Condition B, is intended for application at locations where Condition A is not satisfied and where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or conflict in entering or crossing the major street. These conditions are satisfied when, for each of any eight hours of an average day, anticipated volumes on the artery and side road are in excess of the minimum values presented in Tables 4C-1 in the MUTCD. Hourly traffic volumes expected under full development conditions along Route 75 at the new site driveway and Commerce Place intersections were projected based on the hourly traffic distribution measured by NYSDOT along Route 75 in 2005. Hourly traffic volumes expected to exit the site drive were projected based on the typical hourly distribution of Shopping Center Traffic based on actual data for 7 sites. Based upon these calculations, Warrant 1 is met at the site driveway and Commerce Place intersections. Detailed signal warrant calculations are attached.

Warrant 2, the Four-Hour Vehicular Volume signal warrant conditions, are intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal. This warrant stipulates that for any four hours of a day, minimum threshold volumes are met on the artery and side road. Based on the projected hourly traffic volumes, this warrant will be met at both site driveways under full development conditions.

Based on the traffic signal warrant investigation, both traffic signal warrants that deal strictly with vehicular volumes are met at both the site driveways. Given the projected level of service on the proposed site driveway and Commerce Place and the high turning traffic volumes, signalization of both

site driveways (Route 75/proposed new site driveway and Route 75/Commerce Place) are recommended.

E. Summary of Identified Roadway/Intersection Improvements

The following table summarizes the identified roadway/intersection improvements as described in the previous sections of this report.

TABLE VI: IDENTIFIED IMPROVEMENTS

Intersection	Mitigation
Route 75/Legion Drive	• Signal timing adjustments are recommended to accommodate the projected traffic demand
Route 75/Commerce Place	• Install a new three-color, multi-phase traffic signal, • The proposed site driveway should provide two exiting lanes (one right-turn lane and one left-turn lane) and one entering lane.
Route 75/Proposed Site Drive	• Provide a northbound left-turn lane via pavement re-striping, • Extend the southbound right turn lane at Route 75/proposed site drive to provide 425' storage(350' deceleration/storage plus 75' taper) contingent upon available right of way, • "No turn on red" signage is recommended on the eastbound approach due to the close proximity to the thruway on ramp. • Install a new three-color, multi-phase traffic signal, • The proposed site driveway should provide two exiting lanes (one right-turn lane and one left-turn lane) and one entering lane.
Route 75/Route 20	• Signal timing adjustments are recommended to accommodate the projected traffic demand

VIII. CONCLUSIONS AND RECOMMENDATIONS

This report addresses the traffic impact that can be expected from the proposed Hamburg Crossings development in the Town of Hamburg as described in this report. It has been shown that the transportation network can adequately accommodate the projected traffic volumes and resulting impacts to study area intersections, without significant adverse impacts to traffic operations with the recommended mitigation measures in place.

The following list details specific recommendations to be considered as a result of the proposed Hamburg Crossings development:

1. Signal timing adjustments are recommended at the Route 20 / Legion Drive and Route 20 / Route 75 intersections as a result of the proposed development.

2. Construct both site driveways (proposed new site driveway and Commerce Place) on Route 75 with two exiting lanes (one right-turn lane and one left-turn lane) and one entering lane.

3. Install new three-color, multi-phase traffic signals at the proposed new site driveway and Commerce Place on Route 75. The signals should accommodate a permitted/protected northbound left turn phase and a westbound right turn overlap phase.

4. "No turn on red" signage is recommended on the eastbound approach at proposed new site driveway/Route 75 due to the close proximity to the thruway on ramp.

5. Re-stripe the existing two-way left turn lane to provide a 425' (350' storage and 75' taper) northbound left turn lane on Route 75 at proposed new site driveway.

6. Extend the southbound right turn lane at Route 75/new site driveway to provide 425' storage (350' deceleration/storage plus 75' taper) contingent upon available right of way.

7. Appropriate pedestrian amenities shall be installed as required by NYSDOT.

8. All recommended roadway and intersection improvements on Route 75 are subject to review and approval by NYSDOT.

IX. FIGURES

Figures 1 through 8 are included on the following pages.

Transportation Impact Study
for the proposed

Hamburg Crossings

Town of Hamburg, New York

Revised October 2007

Project No. 26077

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LIST OF REFERENCES

1. Special Report 209: Highway Capacity Manual. Transportation Research Board. National Research Council, Washington, DC: 2000.

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5. Traffic Volume Report. NYSDOT. Albany, New York: 2004.

6. Highway Sufficiency Ratings. NYSDOT. Albany, New York: 2002.

7. Federal Highway Administration Manual on Uniform Traffic Control Devices for Street and Highways (MUTCD).

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EXECUTIVE SUMMARY

OVERVIEW

The purpose of this report is to identify the potential traffic impacts associated with the proposed Hamburg Crossings development in the Town of Hamburg, Erie County, New York. This report investigates the existing and projects the future weekday PM and Saturday midday peak hour travel conditions at the proposed site drives and the nearby intersections affected by the development.

The proposed development consists of a shopping center with 652,813± sf of retail space and 115 hotel rooms. Access to the site will be provided via two access points on Route 75; one new driveway located north of I-90 interchange (approximately 300 ft south of Dartmouth Street) and one existing driveway located south of I-90 interchange via Commerce Place. The study area consists of fifteen existing intersections on Route 20 and Route 75.

A background growth rate of 1.5% based on the historical traffic volumes on Route 75 and Route 20 in the vicinity of the proposed site has been applied to the existing traffic volumes in the study area for the five years build-out period. Site generated traffic volumes for the proposed development are projected and distributed to the network based on existing travel patterns, population centers, and existing highway conditions. The operating characteristics of the proposed access points and impacts to the adjacent roadway network are identified and recommendations are provided to minimize any capacity or safety concerns.

CONCLUSIONS AND RECOMMENDATIONS

This report addresses the traffic impact that can be expected from the proposed Hamburg Crossings development in the Town of Hamburg as described in this report. It has been shown that the transportation network can adequately accommodate the projected traffic volumes and resulting impacts to study area intersections, without significant adverse impacts to traffic operations with the recommended mitigation measures in place.

The following list details specific recommendations to be considered as a result of the proposed Hamburg Crossings development:

1. Signal timing adjustments are recommended at the Route 20 / Legion Drive and Route 20 / Route 75 intersections as a result of the proposed development.

2. Construct both site driveways (proposed new site driveway and Commerce Place) on Route 75 with two exiting lanes (one right-turn lane and one left-turn lane) and one entering lane.

3. Install new three-color, multi-phase traffic signals at the proposed new site driveway and Commerce Place on Route 75. The signals should accommodate a

permitted/protected northbound left turn phase and a westbound right turn overlap phase.

4. "No turn on red" signage is recommended on the eastbound approach at proposed new site driveway/Route 75 due to the close proximity to the thruway on ramp.

5. Re-stripe the existing two-way left turn lane to provide a 425' (350' storage and 75' taper) northbound left turn lane on Route 75 at proposed new site driveway.

6. Extend the southbound right turn lane at Route 75/new site driveway to provide 425' storage (350' deceleration/storage plus 75' taper) contingent upon available right of way.

7. Appropriate pedestrian amenities shall be installed as required by NYSDOT.

8. All recommended roadway and intersection improvements on Route 75 are subject to review and approval by NYSDOT.

I. INTRODUCTION

The purpose of this report is to identify the potential traffic impact associated with the proposed Camp Road Retail development on the west side of Route 75 (Camp Road) near the I-90 interchange in the Town of Hamburg, Erie County, New York. The operating characteristics of the proposed access points and impacts to the adjacent roadway network are identified.

The objectives of this report are as follows:

- To adequately assess the traffic impacts associated with the proposed development and identify the level of off-site access and traffic control improvements required to service the project;
- To provide public agencies a comprehensive study which evaluates and documents the traffic impacts and off-site improvements, where warranted;
- To provide a technically sound basis to identify impacts and related mitigation requirements in response to off-site traffic impacts;

In an effort to define traffic impact, this analysis determines the extent of existing traffic conditions, projects background traffic flow including area growth and nearby developments, and projects changes in traffic flow due to operation of the proposed facility.

II. PROJECT LOCATION AND STUDY AREA

The proposed site is bounded by NYS Route 75 to the east, retail type land uses to the north, residential/vacant lands to the west, and I-90 to the south in the Town of Hamburg, Erie County, New York. The site location and study area are illustrated in **Figure 1** – Location Plan (all figures are included in Section IX. at the end of this report).

The study area consists of eleven existing intersections on Route 20 and Route 75. The lands adjacent to the proposed development consist primarily of commercial and residential type uses.

III. STUDY AREA HIGHWAY SYSTEM

The study area roadway system identified for investigation includes the portion of Route 20 between Rogers Road to the west and Route 62 to the east and Route 75 between Route 20 to the north, and Highland Avenue to the south. Eleven (11) existing intersections are studied in detail in this report and are as follows:

1. NYS Route 75/Highland Avenue (signalized)
2. NYS Route 75/Legion Drive (signalized)
3. NYS Route 75/Elmview Avenue (unsignalized)
4. NYS Route 75/Scranton Road (signalized)

5. NYS Route 75/Deacon Street/Sunset Ct (unsignalized)
6. NYS Route 75/Sunset Drive (signalized)
7. NYS Route 75/Commerce Place (unsignalized)
8. NYS Route 75/Thruway Ramp (unsignalized)
9. NYS Route 75/Dartmouth Street (unsignalized)
10. NYS Route 75/Columbia Street (unsignalized)
11. NYS Route 20/ NYS Route 75 (signalized)
12. NYS Route 20/ Rogers Road (signalized)
13. NYS Route 20/ Sowles Road (signalized)
14. NYS Route 20/ Howard Road (signalized)
15. NYS Route 20/ NYS Route 62 (signalized)

The lane geometry at each of the study intersections is depicted in **Figure 2**.

NYS Route 20 (Southwestern Blvd) is owned and maintained by NYSDOT within the vicinity of the project. The highway is functionally classified as an east/west urban principal arterial highway with two lanes in each direction. The posted speed limit west of Route 75 is 50 MPH and to the east of Route 75 is 45 MPH. According to the most recent traffic volume data collected by NYSDOT in 2005, the annual average daily traffic (AADT) along Route 20 between Amsdell Road and Route 75 is 22,808 vehicles per day (vpd).

NYS Route 75 (Camp Road) is owned and maintained by NYSDOT within the vicinity of the project. The highway is functionally classified as a north/south urban minor arterial highway with two travel lanes in each direction, a two-way center left turn lane, and a posted speed limit of 45 mph in the vicinity of the site. According to the most recent traffic volume data collected by NYSDOT in 2005, the annual average daily traffic (AADT) along Route 75 south of Route 20 is approximately 25,848 vehicles per day (vpd).

NYS Route 62 (S Park Avenue) is owned and maintained by NYSDOT. The highway is functionally classified as a north/south urban principal arterial highway with a posted speed limit of 45 mph. NYS Route 62 is generally two lanes in each direction in the vicinity of Southwestern Boulevard. According to the most recent traffic volume data collected by NYSDOT in 2005, the annual average daily traffic (AADT) along Route 75 south of Route 20 is approximately 16,754 vehicles per day (vpd).

Rogers Road (CR 464) is a north-south roadway that provides a connection between Lakeshore Road (NYS Route 5) to the north and Pleasant Avenue (CR 122) to the south. The posted speed limit in the vicinity of the study area is 35 mph. Rogers Road has one travel lane in each direction with left turn lanes at the Southwestern Boulevard intersection.

Howard Road, Columbia Street, Dartmouth Street, Commerce Place, Deacon Street, Elmview Avenue, Sunset Drive, Scranton Road and Highland Avenue are

all local roadways under the jurisdiction of the Town of Hamburg. Sowles Road (County Road 162) and Legion Drive (County Road 134) are under the jurisdiction of Erie County Highway Department.

IV. EXISTING TRAFFIC CONDITIONS

A. Peak Intervals for Analysis

Given the functional characteristics of the corridor and the land use proposed for the site (retail development), the peak hours selected for analysis are the weekday PM and Saturday midday peaks. The combination of site traffic and adjacent through traffic produces the greatest demand during these time periods.

B. Existing Traffic Volume Data

Weekday PM (4:00-6:00pm) and Saturday midday (11:30am-1:30pm) peak traffic counts were collected by SRF & Associates (SRF) at the study area intersections identified above.

Peak hour volumes at six of the study area intersections (Route 20/Sowles Road and the Route 75 intersections with Route 20, Commerce Place, Sunset Drive, Scranton Road and I-90 Thruway drive) were collected on January 05 and 06, 2007. Peak hour volumes at four of the study area intersections (Route 75/Legion Drive intersection and the Route 20 intersections with Rogers Road, Howard Road and Route 62) were collected on January 12 and 13, 2007. Peak hour volume at Route 75/ Highland Avenue was collected on March 2 and 3, 2007. Peak hour volumes at four of the study area intersections (Route 75 intersections with Columbia Street, Dartmouth Street, Deacon Street and Elmview Avenue) were collected on September 07 and 08, 2007. The peak hour traffic periods generally occurred between 4:30 to 5:30 PM and 11:45 to 12:45 PM. Given the varied collection dates of the individual turning movement counts, all traffic volumes were reviewed to confirm the accuracy and relative balance of the collective traffic counts. Minor adjustments to the traffic volumes were made wherever necessary to balance the data within the network within reasonable and expected variations. The existing balanced peak hour volumes are depicted in **Figure 3**.

Existing Average Daily Traffic (ADT) information was obtained from the New York State Department of Transportation (NYSDOT) *Traffic Volume Report 2004 and NYSDOT Traffic Data Viewer Website*. **Figure 4** illustrates the ADT volumes on the study roadways.

C. Field Observations at Study Area Intersections

All intersections included in the project area were observed during both peak intervals to assess existing traffic operating conditions at each

intersection. Signal timing information was collected, at the previously identified signalized intersections, to determine peak hour phasing plans and phase durations during each interval. This information was used to support and/or calibrate capacity analysis models described in detail later in this report.

D. *Existing Accident Investigation*

Based on discussions with NYSDOT and given the completion of NYS Route 20 construction project, an investigation of existing accidents is not required at any intersections along Route 20. The NYSDOT construction project will change the operational and safety characteristics rendering historical accident information not meaningful.

However, accidents along Route 75 from Columbia Street to Highland Avenue were obtained from the Town/Village of Hamburg. The accidents included in the current review collectively covered a three-year time period from April 2004 through April 2007. During this period, 103 reportable accidents were documented at the intersections and segments along Route 75 between Columbia Street and Highland Avenue included in the study area.

The accident history was further investigated to identify high incident areas. Table I summarizes accidents occurring at each intersection and the roadway sections along Route 75. Based on the number of accidents at each intersection and roadway sections along Route 75, accident rates were calculated and compared to the statewide average for similar facilities. Accident rate calculations are included in the Appendix. Intersection rates are listed as accidents per million entering vehicles (ACC/MEV).

TABLE I: SUMMARY OF ACCIDENTS AND COMPARISON OF RATES

Intersection	Total No. of Accidents	Actual Project Rate	State Wide Average Rate
1. Route 75/Highland Avenue	2	0.11	0.60
2. Route 75/Legion Drive	12	0.47	0.29
3. Route 75/Scranton Road	2	0.09	0.46
4. Route 75/Sunset Drive	5	0.21	0.29
5. Route 75/Commerce Place	4	0.13	0.16
6. Route 75/Thruway Ramps	3	0.14	0.16
7. Route 75 between Highland Ave and Legion Dr	28	2.25	2.94
8. Route 75 between Legion Dr and Scranton Rd	8	0.62	2.94
9. Route 75 between Scranton Rd and Sunset Dr	19	1.80	2.94
10.Route 75 between Sunset Dr and Commerce Pl	8	0.91	2.94
11. Route 75 between Thruway Ramp and Columbia St	12	1.15	2.94

Accident (collision) diagrams have been produced for the intersections in the study area along Route 75 to identify specific clusters or accident patterns. An assessment of the information illustrated in the diagrams and Table I may indicate accident trends or specific causes for the identified accident clusters.

All roadway segments along Route 75 between Columbia Street and Highland Avenue and all intersections along Route 75 with the exception of Intersection 2 (Route 75/Legion Drive) had low accident rates compared to the statewide average. All intersections exhibiting greater than 5 accidents with accident rates that exceed the statewide average rate over the assessment period are discussed in detail below:

#2: Route 75/Legion Drive

A total of twelve (12) accidents were documented during the investigation period (3 years). The calculated accident rate is 62% higher than the statewide average for other similar 3-legged intersections. . The majority of accidents involved rear-end (5) collisions. The remaining accidents were categorized as left turn (2), right angle (3), right turn (1), and sideswipe (1). Notable accident clusters at this location include:

- 4 rear end collisions (westbound)
- 3 westbound right angle collisions with northbound through traffic

V. FUTURE AREA DEVELOPMENT AND LOCAL GROWTH

Construction of the proposed Hamburg Crossings development in Hamburg is anticipated within five years. The Town of Hamburg was contacted to discuss current projects within the project study area that are currently under construction and/or approved. The following developments are approved/under construction in the study area:

- Wellington Woods Subdivision that consists of 54 single family residential units near the Lakeview Road/Lakeshore Road intersection,
- Treehaven Subdivision that consists of 90 single family residential units and 43 patio homes near the Route 5/Lakeshore Road intersection,
- Woodstream Estates Subdivision that consists of 85 single family residential units to the north of the site along Rogers Road (south of Cloverbank Road).
- A new Wal★Mart store on the northeast corner of Route 20/Rogers Road.

Therefore, traffic volumes related to all four of these developments were included in the background traffic conditions.

To account for normal increases in background traffic growth, including any unforeseen developments in the project study area, a growth rate of 1.5% per year has been applied to the existing traffic volumes in the study area for the five years build-out period. The background traffic volumes are depicted in **Figure 5**.

VI. PROPOSED DEVELOPMENT

A. Description

The proposed development is located along the west side of Route 75 near the I-90 interchange in the Town of Hamburg, Erie County, New York. The proposed development consists of a shopping center with 652,813± sf of retail space and 115 hotel rooms.

Access to the site will be provided via two access points on Route 75; one new driveway located north of I-90 interchange (approximately 300 ft south of Dartmouth Street) and one existing driveway located south of I-90 interchange via Commerce Place.

B. Site Traffic Generation

The next step in the evaluation is to determine the additional traffic attributable to the development as defined, vehicle trips entering and exiting the site. Trip Generation, 7th Edition is used as a reference for this information. The trip rate for the peak hour of the generator may or may not coincide in time or volume with the trip rate for the peak hour of adjacent street traffic. Volumes generated during the peak hour of adjacent street traffic, in this case, the weekday PM and Saturday midday peaks, represent a more critical volume when analyzing the capacity of the system; those intervals will provide the basis of this analysis.

The volume of traffic generated by a site is dependent on the intended land use and size of the development. Trip generation can be defined as an estimate of the number of trips generated by a specific building or land use. These trips represent the volume of new traffic added to the roadways due to the proposed development.

The volume of site-generated traffic at the proposed access drives has been estimated based on data contained in the Trip Generation manual. All trip generation calculations are included in Appendix A2 of this report. Table II shows the total site generated trips for the weekday PM and Saturday midday peak hours for the proposed development.

TABLE II: SITE GENERATED TRAFFIC VOLUMES

DESCRIPTION	PM PEAK		SAT PEAK	
	ENTER	EXIT	ENTER	EXIT
Retail - 652,813 ± sf (Shopping Center)	1037	1123	1524	1407
115 Rooms Hotel	36	32	46	37
Total	**1073**	**1155**	**1570**	**1444**

C. Determination of Pass-by Trips

For certain types of developments the total number of driveway trips generated is different from the amount of new traffic added to the adjacent highway network by the generator. Retail-oriented developments (such as shopping centers, supermarkets, home improvement stores, discount stores, restaurants, banks, service stations, and convenience markets etc.) often locate adjacent to busy streets in order to attract the motorists already passing the site on the adjacent street system. These sites attract a portion of their trips from traffic passing the site.

Trips generated by retail-type uses, such as the Hamburg Crossings development, can be broken down into two categories: pass-by trips and primary trips. The "pass-by" traffic refers to the amount of existing traffic already on the roadway adjacent to the site (in this case Route 75) that, as it "passes by" the site, will enter the site driveways to patronize the various retail uses. That portion of the generated traffic attracted to the site would pass on the adjacent street system (Route 75) whether or not the site is developed and thus produces no new traffic at study area intersections other than the site driveways.

The ITE suggests that 34% and 26% of the weekday PM and Saturday midday peak hour traffic entering the proposed site comes from the existing traffic stream on Route 75. Based on the above information, consideration of the location of the proposed site, and the amount of traffic currently passing the site, pass-by rates of 30% and 25% were used during the PM and Saturday peak periods for analysis purposes in this report. These percentage reductions were applied to the total site generated traffic. Table III shows the pass-by trip percentages that are applied to the site generated volumes and the resulting "new" traffic that will be added to the existing highway system for the weekday PM and Saturday midday peak periods.

TABLE III: PASS-BY & PRIMARY TRIPS

DESCRIPTION	PM PEAK		SAT PEAK	
	ENTER	EXIT	ENTER	EXIT
Total site generated volumes	1073	1155	1570	1444
Pass-by Trips - 30% (25%)	*-322*	*-347*	*-393*	*-361*
Resulting Primary Trips	**751**	**808**	**1177**	**1083**

All trip generation calculations are included in the Appendix of this report.

D. Site Traffic Distribution

The cumulative effect of site traffic on the transportation network is dependent on the origins and destinations of that traffic and the location of the access drives serving the site.

The proposed arrival/departure distribution of traffic to be generated at this site is considered a function of several parameters, including the following:

- Population centers in the area
- Existing highway network
- Existing traffic conditions and controls
- Existing travel patterns throughout the study area
- Site access drive locations

Figure 6 shows the anticipated trip distribution pattern percentages for the proposed development and **Figure 7** illustrates the peak hour site generated traffic based on those percentages including pass-by trips. The trip generation, distribution, and pass-by rates were reviewed and approved by NYSDOT.

E. Projected Full Development Traffic Volumes

The projected full development design hour traffic volumes were developed for each peak by combining the background traffic conditions (Figure 5), and projected site generated volumes (Figure 7) to yield the total traffic conditions expected at full development. **Figure 8** shows the total weekday PM and Saturday midday peak hour volumes anticipated for the proposed development under full build out conditions.

VII. OPERATIONAL ANALYSES

A. Capacity Analyses

Capacity analysis is a technique used for determining a measure of effectiveness for a section of roadway and/or intersection based on the number of vehicles during a specific time period. The measure of

effectiveness used for the capacity analysis is referred to as a Level of Service (LOS). Levels of Service are calculated to provide an indication of the amount of delay that a motorist experiences while traveling along a roadway or through an intersection. Since the most amount of delay to motorists usually occurs at intersections, the capacity analysis specifically focuses on intersections.

Six Levels of Service are defined for analysis purposes. They are assigned letter designations, from "A" to "F", with LOS "A" representing operating conditions with the least time delay. LOS "F" is the least desirable operating condition where longer delays are experienced by motorists. Suggested ranges of service capacity and an explanation of Levels of Service are included in the Appendix.

The standard procedure for capacity analysis of signalized and unsignalized intersections is outlined in the 2000 Highway Capacity Manual (HCM 2000). Traffic analysis software, SYNCHRO (Build 614), which is based on procedures and methodologies contained in the HCM 2000, was used to analyze operating conditions at study area intersections. The procedure yields a Level of Service (LOS) based on the HCM 2000 as an indicator of how well intersections operate. Existing operating conditions during the peak study periods are evaluated to determine a basis for comparison with the projected future conditions. Existing operating conditions are documented in the field and modeled using traffic analysis software. The traffic analysis models are calibrated based on the actual field observations.

Table IV indicates the level of service results for existing, background and full development conditions for the proposed development. The discussion following the table summarizes the existing, background, and future capacity conditions.

TABLE IV
INTERSECTION CAPACITY ANALYSIS RESULTS

INTERSECTION		***EXISTING CONDITIONS***		***BACKGROUND CONDITIONS***		***FULL DEVELOPMENT CONDITIONS***		***FULL DEVELOPMENT - IMPROVEMENTS***	
		PM	***SAT***	***PM***	***SAT***	***PM***	***SAT***	***PM***	***SAT***
Route 75(Lake Street) / Highland Avenue (S)									
EB - Highland Ave	Left	E	D	E	D	E	D	NA	NA
	Thru/Right	D	C	D	C	D	C		
WB - Highland Ave	Left	E	D	E	D	E	D		
	Thru/Right	C	B	C	B	C	B		
NB - Route 75	Left	A	A	A	A	A	A		
	Thru/Right	A	A	A	A	A	A		
SB - Route 75	Left	A	A	A	A	A	A		
	Thru/Right	A	A	A	A	A	A		
Overall LOS / Delay in sec/veh		A(7.5)	A(5.5)	A(8.1)	A(5.8)	A(9.7)	A(7.4)		

INTERSECTION		EXISTING CONDITIONS		BACKGROUND CONDITIONS		FULL DEVELOPMENT CONDITIONS		FULL DEVELOPMENT - IMPROVEMENTS	
		PM	SAT	PM	SAT	PM	SAT	PM	SAT
Route 75(Camp Road) / Legion Drive (S)									
WB - Legion Dr	Left	C	C	C	C	C	C	NA	C
	Right	A	A	A	A	B	B		B
NB - Route 75	Thru/Right	B	B	B	B	B	B		B
SB - Route 75	Left	A	A	B	B	C	D		C
	Thru	A	A	A	A	A	A		A
Overall LOS / Delay in sec/veh		B(11.2)	A(9.6)	B(13.0)	B(10.5)	B(16.5)	B(16.4)		B(15.6)
Route 75(Camp Road) / Elmview Ave (U)									
EB - Elmview Ave	Left/Thru/Right	C	C	D	C	D	C	NA	NA
NB - Route 75	Left	A	A	A	A	A	A		
Route 75(Camp Road) / Scranton Road (S)									
EB - Scranton Rd	Left/Thru/Right	-	A	-	A	-	B	NA	NA
WB - Scranton Rd	Left	B	B	B	B	C	C		
	Thru/Right	A	A	A	A	B	B		
NB - Route 75	Left/Thru/Right	A	A	A	A	A	A		
SB - Route 75	Left	A	A	B	A	C	B		
	Thru/Right	A	A	A	A	A	A		
Overall LOS / Delay in sec/veh		A(5.9)	A(6.1)	A(6.3)	A(6.4)	A(8.0)	A(7.8)		
Route 75(Camp Road) / Sunset Ct. / Deacon St. (U)									
EB - Sunset Ct.	Left/Thru/Right	C	B	C	B	C	C	NA	NA
WB - Deacon St.	Left/Thru/Right	B	C	C	C	C	E		
NB - Route 75	Left	B	A	B	A	B	B		
SB - Route 75	Left	A	A	A	B	B	B		
Route 75(Camp Road) / Sunset Drive (S)									
EB - Sunset Drive	Left	D	D	D	D	D	D	NA	NA
	Right	B	B	B	B	B	B		
NB - Route 75	Left	A	A	A	A	B	A		
	Thru	A	A	A	A	A	A		
SB - Route 75	Thru	B	A	B	A	B	B		
	Right	A	A	A	A	A	A		
Overall LOS / Delay in sec/veh		B(10.5)	A(9.5)	B(11.5)	B(10.4)	B(14.6)	B(14.0)		
Route 75(Camp Road) / Commerce Place (U)								**SIGNAL**	
EB - Commerce Place	Left	NA	NA	NA	NA	NA	NA	D	D
	Right							D	B
	Left/Right	E	C	E	C	F(*)	F(*)	-	-
NB - Route 75	Left	B	A	B	A	F(91.5)	C	D	D
	Thru	A	A	A	A	A	A	A	A
SB - Route 75	Thru/Right	A	A	A	A	A	A	C	C
Overall LOS / Delay in sec/veh		-	-	-	-	-	-	C(29.3)	C(21.0)
Route 75(Camp Road) / Proposed Site Drive (U)								**SIGNAL**	
EB - Proposed Site Dr	Left	NA	NA	NA	NA	F(*)	F(*)	C	C
	Right					D	D	B	A
NB - Route 75	Left					C	C	C	C
	Thru					A	A	B	B
SB - Route 75	Thru					A	A	C	D
	Right					A	A	C	D
Overall LOS / Delay in sec/veh						-	-	C(26.5)	D(35.8)

INTERSECTION		EXISTING CONDITIONS		BACKGROUND CONDITIONS		FULL DEVELOPMENT CONDITIONS		FULL DEVELOPMENT - IMPROVEMENTS	
		PM	SAT	PM	SAT	PM	SAT	PM	SAT
Route 75(Camp Road) / Dartmouth Street (U)									
WB - Dartmouth	Left/Thru/Right	C	C	D	D	E	F(52.1)	NA	NA
SB - Route 75	Left	B	B	B	B	C	C		
Route 75(Camp Road) / Columbia Street (U)									
WB - Columbia St	Left/Thru/Right	D	C	E	C	F(68.8)	E	NA	NA
SB - Route 75	Left	B	B	B	B	C	C		
Route 20(Southwestern Blvd) / Route 75 (S)									
EB - Route 20	Left	E	E	E	F(86.8)	E	F(86.8)	NA	E
	Thru	D	E	D	E	D	E		E
	Right	B	A	C	B	C	C		C
WB - Route 20	Left	E	E	E	E	E	F		E
	Thru	D	D	D	D	D	D		D
	Right	A	A	A	A	A	A		A
NB - Route 75	Left	D	E	E	D	E	D		E
	Thru	C	B	C	C	C	C		C
	Right	A	A	A	A	A	A		B
SB - Route 75	Left	E	E	E	E	E	E		E
	Thru	D	C	D	C	E	D		D
	Right	B	A	C	B	C	C		C
Overall LOS / Delay in sec/veh		D(37.7)	D(37.3)	D(42.6)	D(41.1)	D(50.2)	D(44.7)		D(42.5)
Route 20(Southwestern Blvd) / Rogers Road (S)									
EB - Route 20	Left	A	A	A	A	A	A	NA	NA
	Thru/Right	A	A	A	A	A	A		
WB - Route 20	Left	A	A	A	A	A	A		
	Thru	A	A	A	A	A	A		
	Right	A	A	A	A	A	A		
NB - Rogers Road	Left	B	B	B	B	B	B		
	Thru/Right	B	A	B	B	B	B		
SB - Rogers Road	Left	C	B	C	C	C	C		
	Thru/Right	B	A	B	B	B	B		
Overall LOS / Delay in sec/veh		A(7.3)	A(6.2)	A(9.1)	A(7.6)	A(9.6)	A(8.3)		
Route 20(Southwestern Blvd) / Sowles Road (S)									
EB - Route 20	Left	A	A	A	A	A	A	NA	NA
	Thru/Right	A	A	A	A	A	A		
WB - Route 20	Left	A	A	A	A	A	A		
	Thru/Right	A	A	A	A	A	A		
NB - Sowles Road	Left	D	D	D	D	D	D		
	Thru/Right	C	C	C	C	B	C		
SB - Sowles Road	Left	C	C	C	C	C	C		
	Thru/Right	C	C	C	C	C	C		
Overall LOS / Delay in sec/veh		B(12.4)	A(9.8)	B(13.2)	B(10.5)	B(13.8)	B(11.7)		

INTERSECTION		EXISTING CONDITIONS		BACKGROUND CONDITIONS		FULL DEVELOPMENT CONDITIONS		FULL DEVELOPMENT - IMPROVEMENTS	
		PM	SAT	PM	SAT	PM	SAT	PM	SAT
Route 20(Southwestern Blvd) / Howard Road (S)									
EB - Route 20	Left	A	A	A	A	A	A	NA	NA
	Thru/Right	A	A	A	A	A	A		
WB - Route 20	Left	A	-	A	-	A	-		
	Thru/Right	A	A	A	A	A	A		
NB - Howard Rd	Left/Thru/Right	C	C	C	C	C	C		
SB - Howard Rd	Left	D	E	D	E	D	E		
	Thru/Right	A	A	A	A	A	A		
Overall LOS / Delay in sec/veh		A(5.6)	A(6.5)	A(5.8)	A(6.7)	A(5.7)	A(6.4)		
Route 20(Southwestern Blvd) / Route 62(South Park) (S)									
EB - Route 20	Left	D	D	E	D	E	D	NA	NA
	Thru/Right	C	C	C	C	C	C		
WB - Route 20	Left	D	D	E	D	E	D		
	Thru/Right	D	C	D	C	D	C		
NB - Route 62	Left	C	B	C	C	C	C		
	Thru/Right	C	C	C	C	C	C		
SB - Route 62	Left	B	B	C	C	C	C		
	Thru/Right	D	C	D	C	D	C		
Overall LOS / Delay in sec/veh		C(34.3)	C(28.8)	D(38.0)	C(31.8)	D(40.3)	C(33.7)		

* Calculated delay exceeds two minutes per vehicle. Drivers are likely to accept shorter gaps in traffic to make left turns when this occurs.

The following intersections operate at level of services (LOS) "E" or better under existing, background, and future conditions and no changes in LOS are anticipated on any of the movements between the background and full development conditions. No improvements are warranted or recommended at these intersections:

- Route 75(Lake Street)/Highland Avenue,
- Route 75/Elmview Avenue,
- Route 20/Sowles Road,
- Route 20/Rogers Road,
- Route 20/Howard Road,
- Route 20/Route 62

The following intersections experienced decreases in levels of service related to borderline conditions as a result of the proposed Hamburg Crossings development. (i.e. the delay was approaching thresholds that define differences in the letter designations for level of service). All movements are projected to operate at LOS "D" or better without any mitigation:

- Route 75/Scranton Road,
- Route 75/Sunset Drive

The remaining intersections are discussed in detail below.

Route 75 / Legion Drive
All movements at the Route 75/Legion Drive intersection operate at average LOS "C" or better under existing, background, and future conditions with the exception of the southbound left turn movement during the SAT peak hour which operates at LOS "D" under full development condition.

The southbound left turn movement is projected to decline from LOS "B" to "D" during the SAT peak hour between background and full development conditions. This LOS change can be mitigated via signal timing adjustments to maintain LOS "C" or better on all approaches.

Route 75 / Sunset Ct/ Deacon Street
All movements at the Route 75/Sunset Ct/Deacon Street intersection operate at average LOS "C" or better under existing, background, and future conditions with the exception of the westbound approach during the SAT peak hour which operates at LOS "E" under full development condition.

The westbound approach is projected to decline from LOS "C" to "E" during the SAT peak hour between background and full development conditions. A preliminary review of the Federal MUTCD Traffic Signal Warrants indicates that it is unlikely that any of the two key warrants (four hour volumes and eight hour volumes) would be met at this intersection. Therefore, no mitigation is recommended at this intersection.

Route 75 / Commerce Place
All movements at the Route 75/Commerce Place intersection operate at average levels of service (LOS "C" or better) with the exception of the eastbound approach which operates at LOS "E" during the PM peak hour under existing and background conditions.

The full development analysis results indicate that the eastbound approach exiting the site driveway (Commerce Place) to Route 75 will operate at LOS "F" at full development with long delays during both peak periods. The failing levels of service and high turning volumes indicate a potential need for a traffic signal at this location. Federal MUTCD Traffic Signal warrants for installation of a traffic signal were evaluated (see section D. below) and all of the volume related warrants are projected to be met at full development of the site as proposed. Therefore, the following mitigation is proposed at this location:

- Install a new traffic signal,
- Provide two exiting and one entering lane at Commerce Place

With the recommended mitigation in place, the intersection is projected to operate at LOS "D" or better on all movements during both peak periods.

Route 75 / Proposed Site Driveway

The capacity analysis results indicate that the eastbound left turn movement exiting the site driveway to Route 75 will operate at LOS "F" at full development with long delays during both peak periods. The failing levels of service and high turning volumes indicate a potential need for a traffic signal at this location. Federal MUTCD signal warrants for installation of a traffic signal were evaluated (see section D. below) and all of the volume related warrants are projected to be met at full development of the site as proposed. Therefore, the following mitigation is proposed at this location:

- Provide an northbound left-turn lane via pavement re-striping,
- Extend the southbound right turn lane at Route 75/proposed site driveway to provide 425' storage (350' deceleration/storage plus 75' taper),
- "No turn on red" signage is recommended on the eastbound approach due to the close proximity to the Thruway on ramp.
- Install a new traffic signal,
- Provide two exiting and one entering lane at the new site driveway

With the recommended mitigation in place, the intersection is projected to operate at LOS "D" or better on all movements during both peak periods.

Route 75 / Dartmouth Street

All movements at the Route 75/Columbia Street intersection operate at LOS "C" or better under existing, background, and future conditions with the exception of the westbound approach under background and full development conditions. The westbound approach is projected to decline from LOS "D" to "E" during the PM peak hour and from LOS "D" to "F" during the SAT peak hour between the background and full development conditions.

A preliminary review of the Federal MUTCD Traffic Signal Warrants indicates that it is unlikely that any of the two key warrants (four hour volumes and eight hour volumes) would be met at this intersection. Therefore, no mitigation is recommended at this intersection.

Route 75 / Columbia Street

All movements at the Route 75/Columbia Street intersection operate at LOS "D" or better under existing, background, and future conditions with the exception of the westbound approach under background and full development conditions. The westbound approach is projected to decline from LOS "E" to "F" during the PM peak hour and from LOS "C" to "E"

during the SAT peak hour between background and full development conditions.

A preliminary review of the Federal MUTCD Traffic Signal Warrants indicates that it is unlikely that any of the two key warrants (four hour volumes and eight hour volumes) would be met at this intersection. Therefore, no mitigation is recommended at this intersection.

Route 75 / Route 20

All movements on Route 75/Route 20 intersection operate at LOS "E" or better under existing, background, and future conditions with the exception of the eastbound left turn movement under background and full development conditions and westbound left turn movement under full development conditions which operate at LOS "F" during the SAT peak hour.

The southbound through movement is projected to decline from LOS "D" to "E" during the PM peak hour and from LOS "C" to "D" during the Saturday peak hour between background and full development conditions. The eastbound and the southbound right turn movements decline from LOS "B" to "C" and the westbound left turn movement declines from LOS "E" to "F" during the Saturday peak hour. These LOS changes can be mitigated via signal timing adjustments to maintain LOS "E" or better on all approaches.

B. *Left-Turn Treatment Warrants*

Volume warrants for a northbound left turn lane at the proposed new site driveway on Route 75 were investigated using the Transportation Research Board's NCHRP Report 279, Intersection Channelization Design Guide, 1985. Provisions for left turn lane facilities should be established where traffic volumes are high enough and safety considerations are sufficient to warrant the additional lane.

The combination of projected volumes turning left into the proposed new site driveway on Route 75 indicate that a northbound left turn lane is warranted during both peak periods under full development conditions.

C. *Sight Distance Investigation*

Sight distances were investigated at the proposed site driveway along Route 75. Sight distance is provided at intersections to allow drivers to perceive the presence of potentially conflicting vehicles. This should occur in sufficient time for a motorist to stop or adjust their speed, as appropriate, to avoid a collision at the intersection. Sight distance is also provided at intersections to allow the drivers of stopped vehicles a sufficient view of the intersecting highway to anticipate and avoid potential incidents. If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have

sufficient sight distance to anticipate and avoid collisions. To enhance traffic operations, intersection sight distances that exceed stopping sight distances are desirable along the major road.

A Policy on Geometric Design of Highways and Streets (AASHTO "Green Book") was used as a reference to establish the required stopping sight distance and desirable intersection sight distance for the proposed site drive.

Required stopping distances and desirable intersection sight distances are based on the design speed for a given section of roadway; generally the design speed is the posted speed limit plus 5 mph. In this case, the posted speed limit along Route 75 in the vicinity of the site is 45 mph. Hence a design speed of 50 mph was used. The required stopping distance and desirable intersection sight distance based on the design speed are shown in Table V.

TABLE V
SIGHT DISTANCE REQUIREMENTS AND MEASUREMENTS

INTERSECTION	Desirable Intersection Sight Distance for Left Turn from Stop (ft)	Required Stopping Sight Distance (ft)	Available Sight Distance (ft) to the:	
			Left	Right
Proposed Site Dr. @ Route 75	555'	425'	>700'	>700'

The available sight distances from the proposed site driveway on Route 75 exceed the minimum intersection sight distance and stopping sight distance at the design speed.

D. Traffic Signal Warrant Investigation

A potential capacity deficiency has been identified at the NYS Route 75/ new site driveway and NYS Route 75/Commerce Place intersections during the PM peak hour under full development condition as noted in the previous section of the report. Traffic signals can mitigate this specific type of deficiency by providing controlled right-of-way to all approaches of the intersection. A detailed signal warrant investigation was performed to determine if threshold values are met

The need for a traffic signal is determined by comprehensive investigation of existing and projected traffic conditions and physical characteristics at the location. The Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) published by the Federal Highway Administration (FHWA) in 2004 has set forth warrants to investigate the need for a traffic control signal. The eight warrants are as follows:

Warrant 1	Eight-Hour vehicular volume
Warrant 2	Four-Hour vehicular volume
Warrant 3	Peak Hour
Warrant 4	Pedestrian Volume
Warrant 5	School Crossing
Warrant 6	Coordinated Signal System
Warrant 7	Crash Experience
Warrant 8	Roadway Network

These warrants and their criteria are fully explained in the MUTCD. The investigation will first focus on all warrants that are based exclusively on traffic volumes.

Warrant 1 is subdivided into Condition A and Condition B. The Minimum Vehicular Volume, Condition A, is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal. The Interruption of Continuous Traffic, Condition B, is intended for application at locations where Condition A is not satisfied and where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or conflict in entering or crossing the major street. These conditions are satisfied when, for each of any eight hours of an average day, anticipated volumes on the artery and side road are in excess of the minimum values presented in Tables 4C-1 in the MUTCD. Hourly traffic volumes expected under full development conditions along Route 75 at the new site driveway and Commerce Place intersections were projected based on the hourly traffic distribution measured by NYSDOT along Route 75 in 2005. Hourly traffic volumes expected to exit the site drive were projected based on the typical hourly distribution of Shopping Center Traffic based on actual data for 7 sites. Based upon these calculations, Warrant 1 is met at the site driveway and Commerce Place intersections. Detailed signal warrant calculations are attached.

Warrant 2, the Four-Hour Vehicular Volume signal warrant conditions, are intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal. This warrant stipulates that for any four hours of a day, minimum threshold volumes are met on the artery and side road. Based on the projected hourly traffic volumes, this warrant will be met at both site driveways under full development conditions.

Based on the traffic signal warrant investigation, both traffic signal warrants that deal strictly with vehicular volumes are met at both the site driveways. Given the projected level of service on the proposed site driveway and Commerce Place and the high turning traffic volumes, signalization of both

site driveways (Route 75/proposed new site driveway and Route 75/Commerce Place) are recommended.

E. Summary of Identified Roadway/Intersection Improvements

The following table summarizes the identified roadway/intersection improvements as described in the previous sections of this report.

TABLE VI: IDENTIFIED IMPROVEMENTS

Intersection	Mitigation
Route 75/Legion Drive	• Signal timing adjustments are recommended to accommodate the projected traffic demand
Route 75/Commerce Place	• Install a new three-color, multi-phase traffic signal, • The proposed site driveway should provide two exiting lanes (one right-turn lane and one left-turn lane) and one entering lane.
Route 75/Proposed Site Drive	• Provide a northbound left-turn lane via pavement re-striping, • Extend the southbound right turn lane at Route 75/proposed site drive to provide 425' storage(350' deceleration/storage plus 75' taper) contingent upon available right of way, • "No turn on red" signage is recommended on the eastbound approach due to the close proximity to the thruway on ramp. • Install a new three-color, multi-phase traffic signal, • The proposed site driveway should provide two exiting lanes (one right-turn lane and one left-turn lane) and one entering lane.
Route 75/Route 20	• Signal timing adjustments are recommended to accommodate the projected traffic demand

VIII. CONCLUSIONS AND RECOMMENDATIONS

This report addresses the traffic impact that can be expected from the proposed Hamburg Crossings development in the Town of Hamburg as described in this report. It has been shown that the transportation network can adequately accommodate the projected traffic volumes and resulting impacts to study area intersections, without significant adverse impacts to traffic operations with the recommended mitigation measures in place.

The following list details specific recommendations to be considered as a result of the proposed Hamburg Crossings development:

1. Signal timing adjustments are recommended at the Route 20 / Legion Drive and Route 20 / Route 75 intersections as a result of the proposed development.

2. Construct both site driveways (proposed new site driveway and Commerce Place) on Route 75 with two exiting lanes (one right-turn lane and one left-turn lane) and one entering lane.

3. Install new three-color, multi-phase traffic signals at the proposed new site driveway and Commerce Place on Route 75. The signals should accommodate a permitted/protected northbound left turn phase and a westbound right turn overlap phase.

4. "No turn on red" signage is recommended on the eastbound approach at proposed new site driveway/Route 75 due to the close proximity to the thruway on ramp.

5. Re-stripe the existing two-way left turn lane to provide a 425' (350' storage and 75' taper) northbound left turn lane on Route 75 at proposed new site driveway.

6. Extend the southbound right turn lane at Route 75/new site driveway to provide 425' storage (350' deceleration/storage plus 75' taper) contingent upon available right of way.

7. Appropriate pedestrian amenities shall be installed as required by NYSDOT.

8. All recommended roadway and intersection improvements on Route 75 are subject to review and approval by NYSDOT.

IX. FIGURES

Figures 1 through 8 are included on the following pages.

FIGURE 1 - SITE LOCATION AND STUDY AREA





Legend

- Site Location
- Study Area
- Existing Intersection
- Proposed driveway

N

0 1,100 2,200 4,400 Feet

Revised - 09/27/07

PROPOSED HAMBURG CROSSINGS
TOWN OF HAMBURG
ERIE COUNTY, NEW YORK

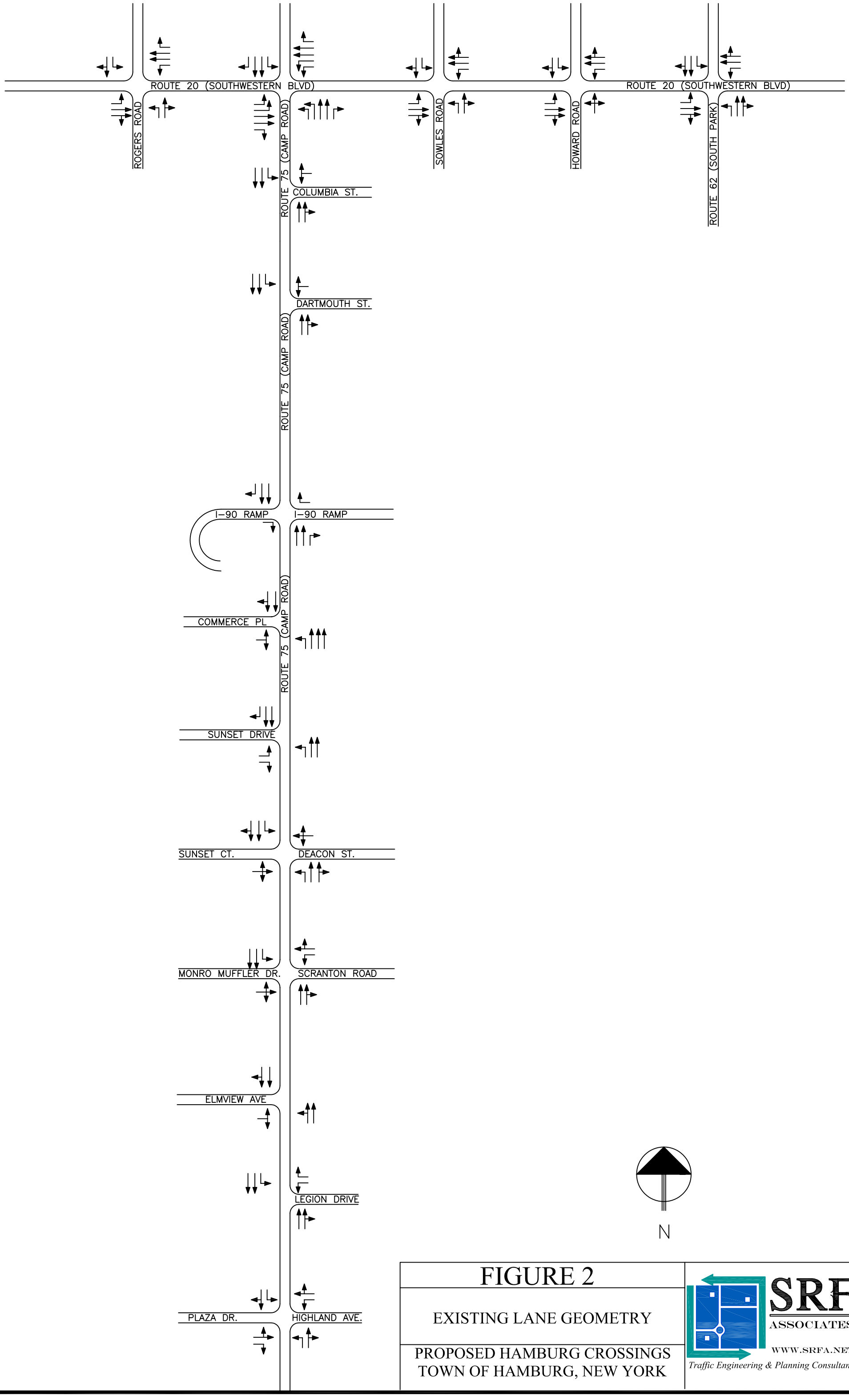


FIGURE 2

EXISTING LANE GEOMETRY

PROPOSED HAMBURG CROSSINGS
TOWN OF HAMBURG, NEW YORK

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Traffic Engineering & Planning Consultants

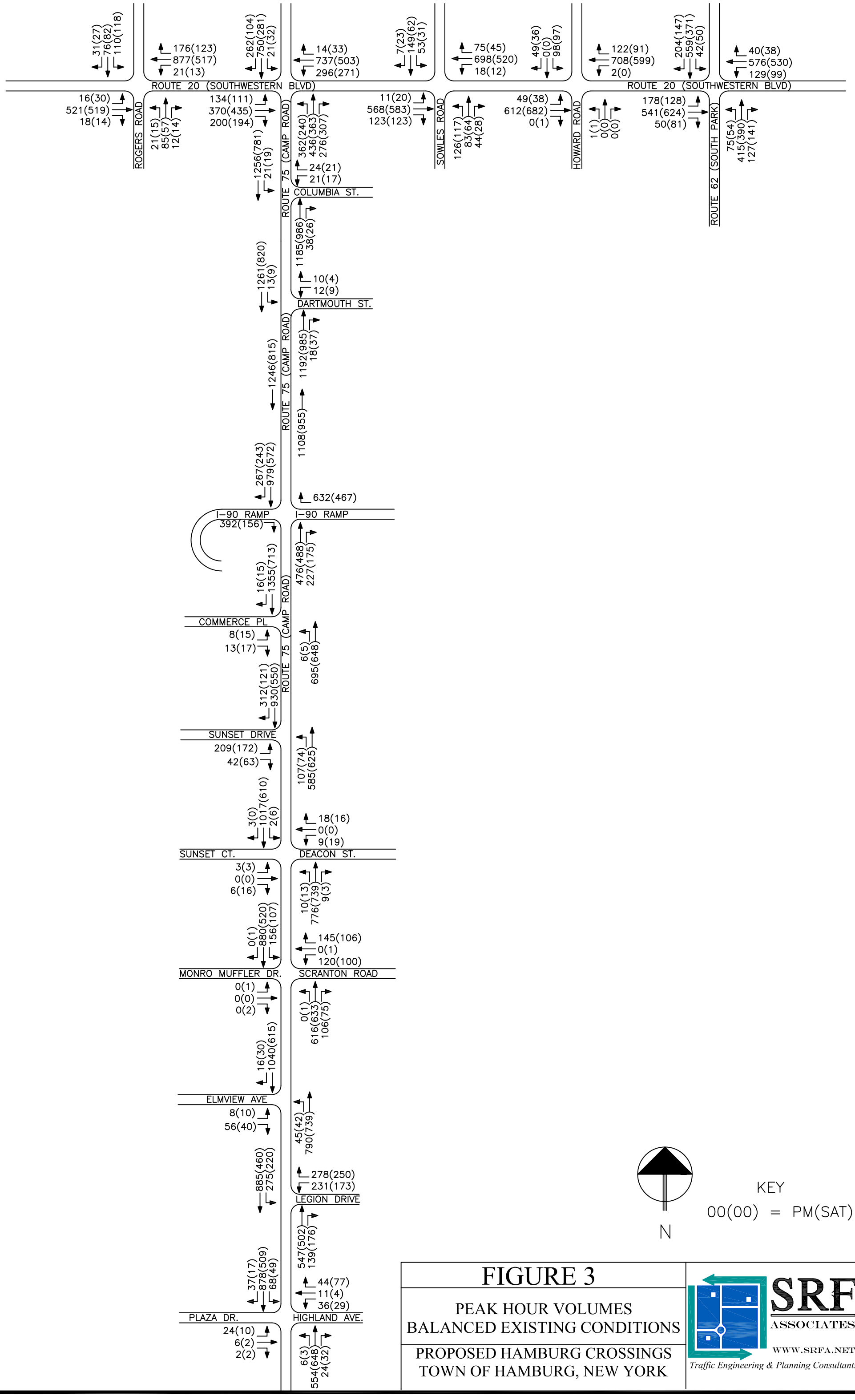


FIGURE 3

PEAK HOUR VOLUMES
BALANCED EXISTING CONDITIONS

PROPOSED HAMBURG CROSSINGS
TOWN OF HAMBURG, NEW YORK

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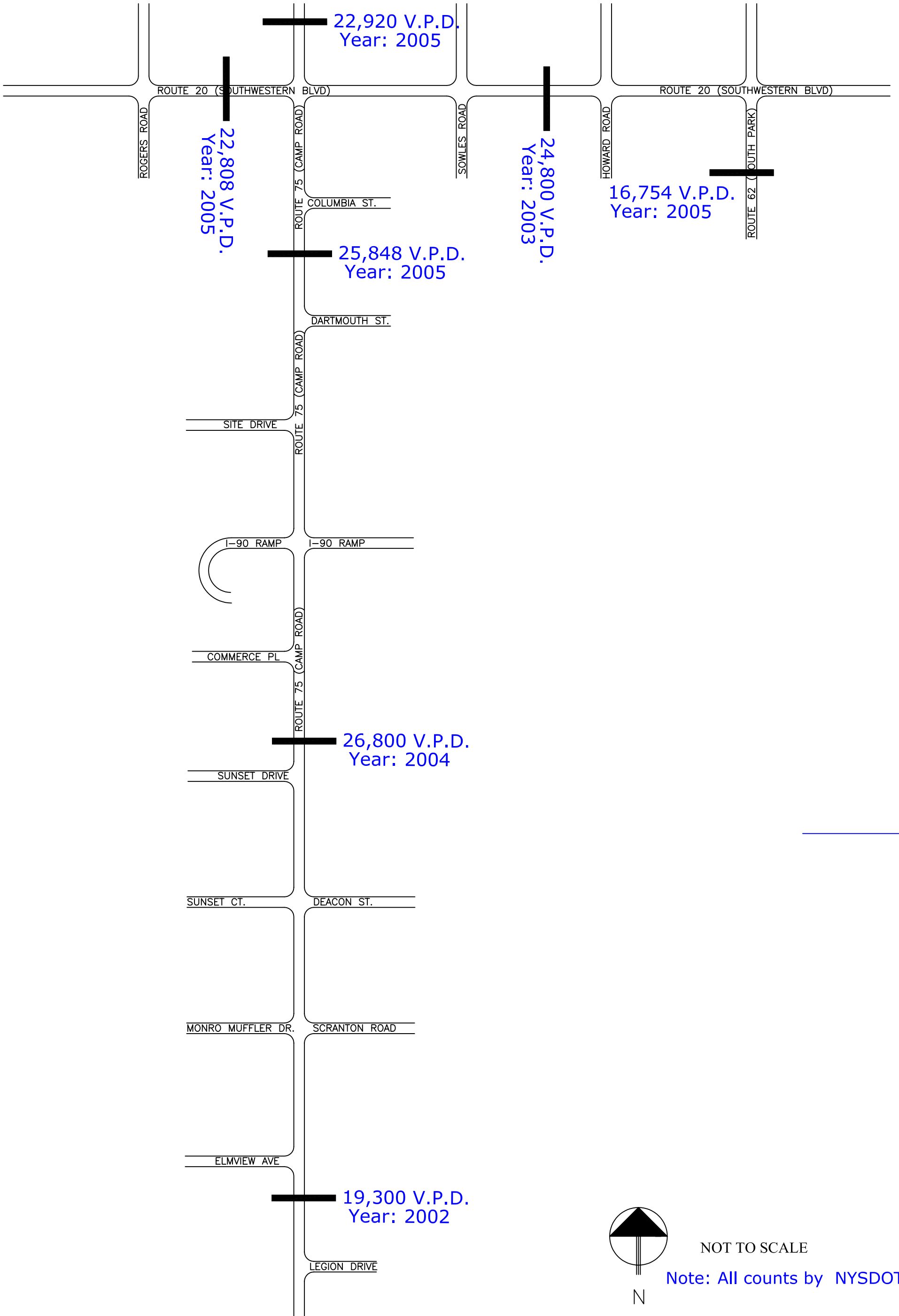


FIGURE 4

AVERAGE DAILY
TRAFFIC VOLUMES

PROPOSED HAMBURG CROSSINGS
TOWN OF HAMBURG, NEW YORK

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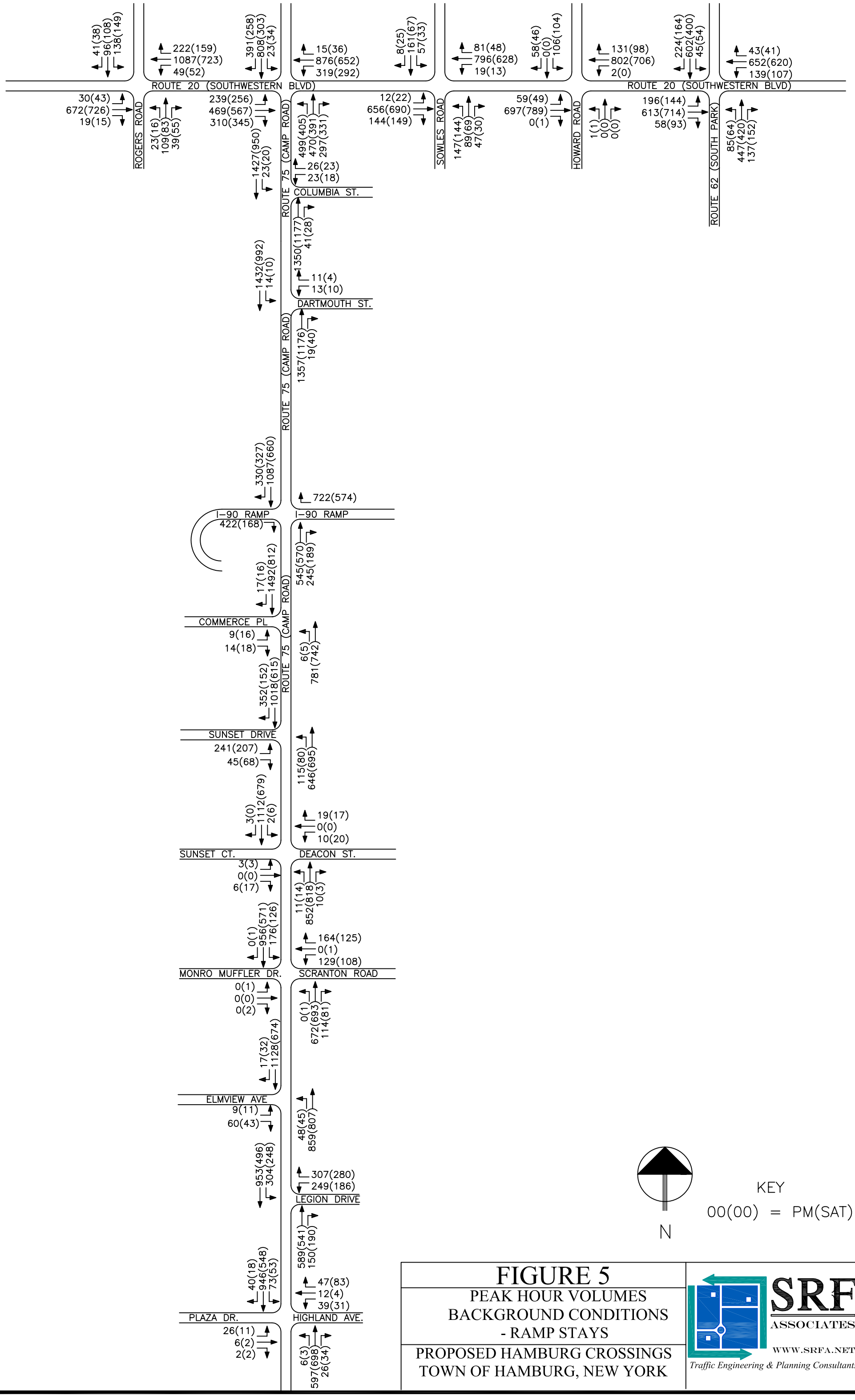


FIGURE 5

PEAK HOUR VOLUMES
BACKGROUND CONDITIONS
- RAMP STAYS

PROPOSED HAMBURG CROSSINGS
TOWN OF HAMBURG, NEW YORK

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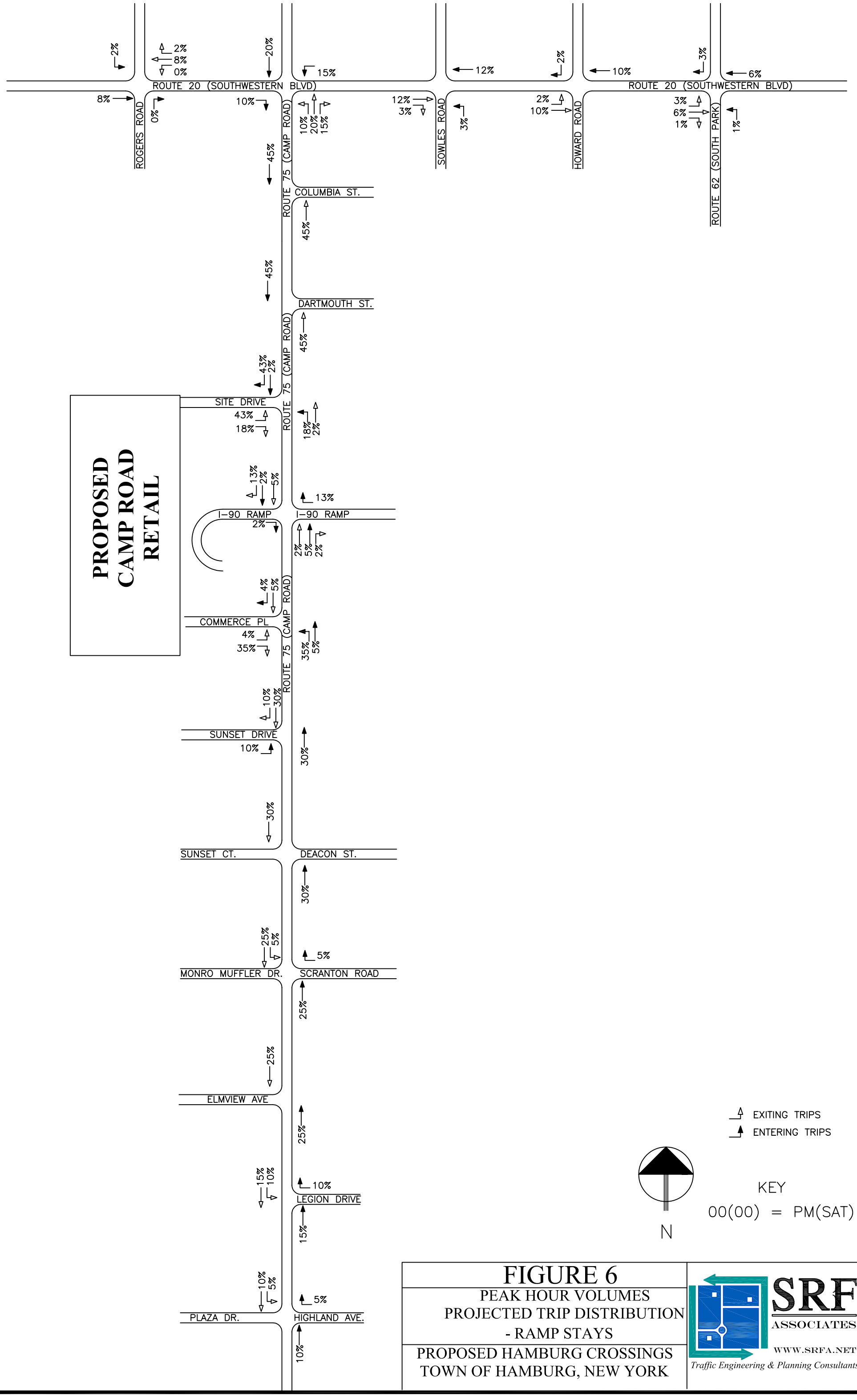


FIGURE 6

PEAK HOUR VOLUMES
PROJECTED TRIP DISTRIBUTION
- RAMP STAYS

PROPOSED HAMBURG CROSSINGS
TOWN OF HAMBURG, NEW YORK

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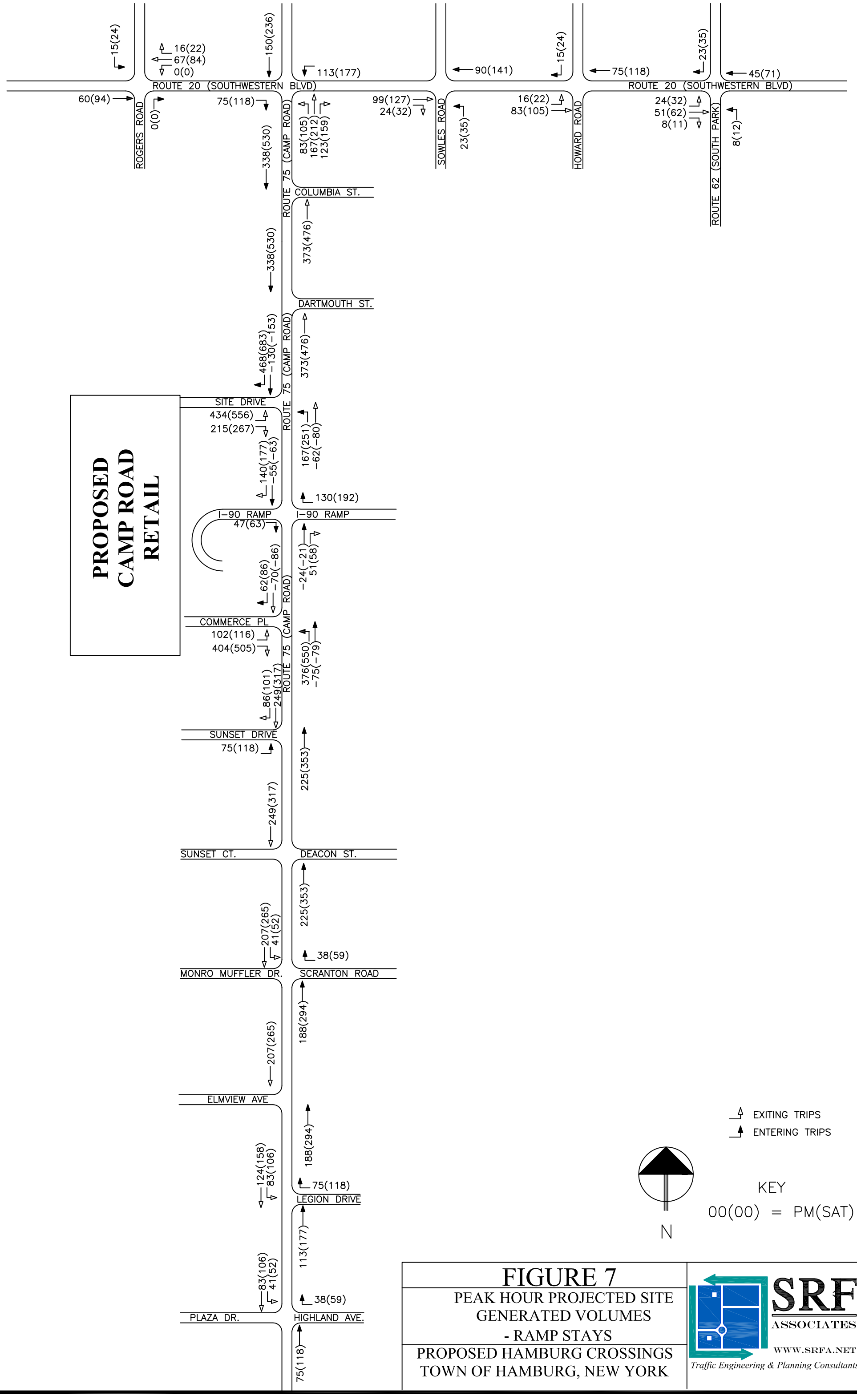


FIGURE 7

PEAK HOUR PROJECTED SITE GENERATED VOLUMES
- RAMP STAYS

PROPOSED HAMBURG CROSSINGS
TOWN OF HAMBURG, NEW YORK

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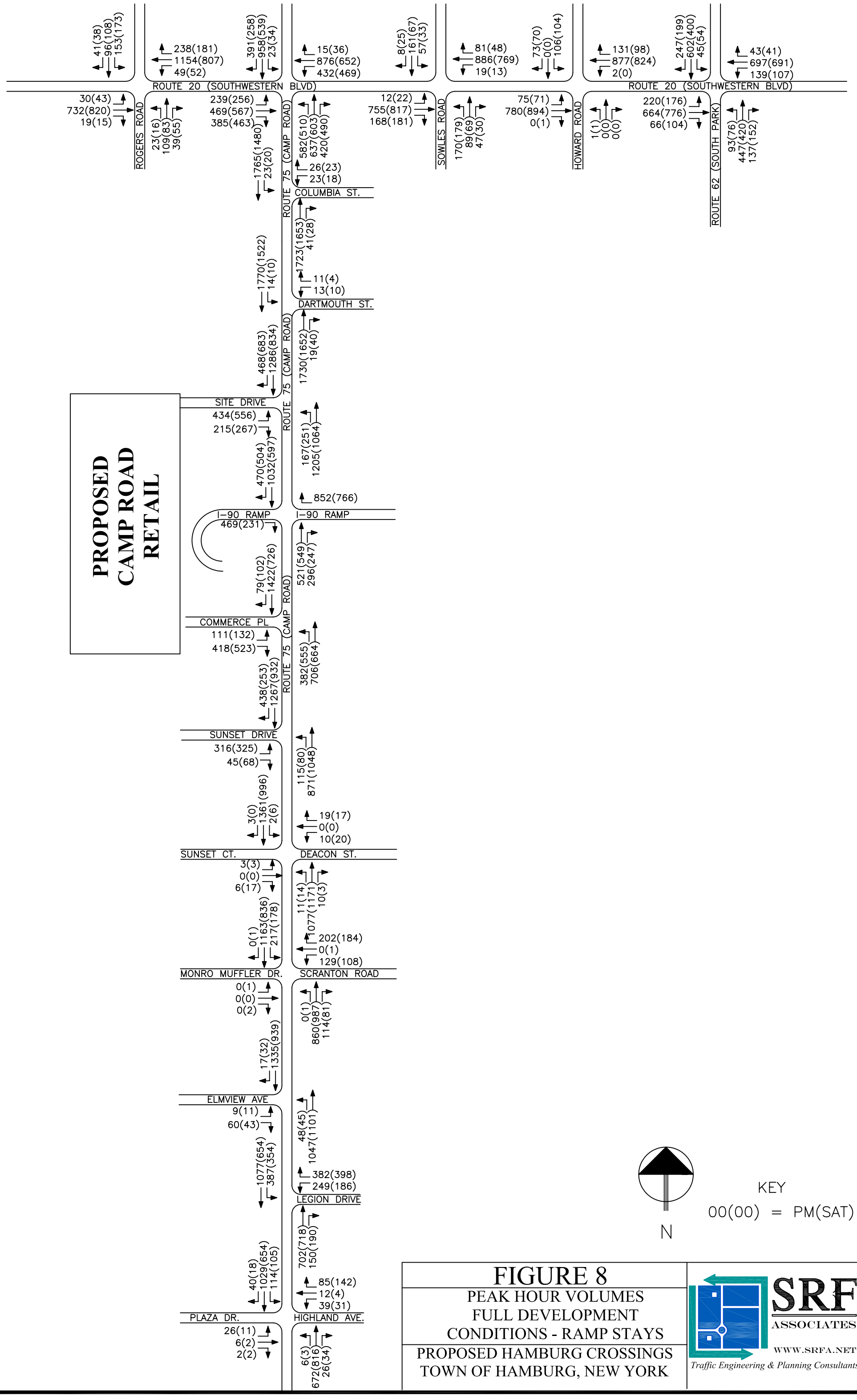


FIGURE 8

PEAK HOUR VOLUMES
FULL DEVELOPMENT
CONDITIONS - RAMP STAYS

PROPOSED HAMBURG CROSSINGS
TOWN OF HAMBURG, NEW YORK

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Traffic Engineering & Planning Consultants

APPENDICES

A1

Collected Traffic Volume Data

SRF & ASSOCIATES
3490 Winton Place, Bldg E, Suite 110
Rochester, NY 14623

File Name : Route75.Highland.PM
Site Code : 11111111
Start Date : 3/2/2007
Page No : 1

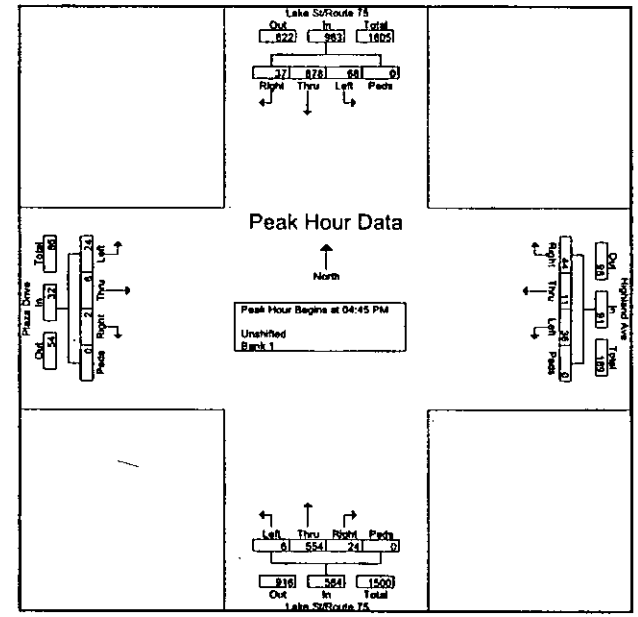
Groups Printed- Unshifted - Bank 1

	Lake St/Route 75 Southbound				Highland Ave Westbound				Lake St/Route 75 Northbound				Plaza Drive Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	7	222	14	0	13	2	6	0	7	168	0	0	0	4	3	0	446
04:15 PM	5	197	17	0	17	5	10	0	7	151	0	0	0	1	2	0	412
04:30 PM	5	193	15	0	19	1	10	0	5	141	0	0	0	0	4	0	393
04:45 PM	11	213	18	0	10	3	9	0	4	130	0	0	0	1	4	0	403
Total	28	825	64	0	59	11	35	0	23	590	0	0	0	6	13	0	1654
05:00 PM	14	245	18	0	8	3	9	0	4	130	4	0	1	0	8	0	444
05:15 PM	8	205	14	0	16	4	8	0	6	139	0	0	1	4	8	0	413
05:30 PM	4	215	18	0	10	1	10	0	10	155	2	0	0	1	4	0	430
05:45 PM	11	192	16	0	5	1	6	0	4	141	0	0	2	1	0	0	379
Total	37	857	66	0	39	9	33	0	24	565	6	0	4	6	20	0	1666
Grand Total	65	1682	130	0	98	20	68	0	47	1155	6	0	4	12	33	0	3320
Apprch %	3.5	89.6	6.9	0	52.7	10.8	36.6	0	3.9	95.6	0.5	0	8.2	24.5	67.3	0	
Total %	2	50.7	3.9	0	3	0.6	2	0	1.4	34.8	0.2	0	0.1	0.4	1	0	
Unshifted	65	1682	130	0	98	20	68	0	47	1155	6	0	4	12	33	0	3320
% Unshifted	100	100	100	0	100	100	100	0	100	100	100	0	100	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF & ASSOCIATES
3490 Winton Place, Bldg E, Suite 110
Rochester, NY 14623

File Name : Route75.Highland.PM
Site Code : 11111111
Start Date : 3/2/2007
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	Lake St/Route 75 Southbound					Highland Ave Westbound					Lake St/Route 75 Northbound					Plaza Drive Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	11	213	18	0	242	10	3	9	0	22	4	130	0	0	134	0	1	4	0	5	403
05:00 PM	14	245	18	0	277	8	3	9	0	20	4	130	4	0	138	1	0	8	0	9	444
05:15 PM	8	205	14	0	227	16	4	8	0	28	6	139	0	0	145	1	4	8	0	13	413
05:30 PM	4	215	18	0	237	10	1	10	0	21	10	155	2	0	167	0	1	4	0	5	430
Total Volume	37	878	68	0	983	44	11	36	0	91	24	554	6	0	584	2	6	24	0	32	1690
% App. Total	3.8	89.3	6.9	0		48.4	12.1	39.6	0		4.1	94.9	1	0		6.2	18.8	75	0		
PHF	.841	.896	.944	.000	.887	.688	.688	.900	.000	.813	.600	.894	.375	.000	.874	.500	.375	.750	.000	.615	.952



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File Name : Route75.Highland.SAT
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Groups Printed- Unshifted - Bank 1

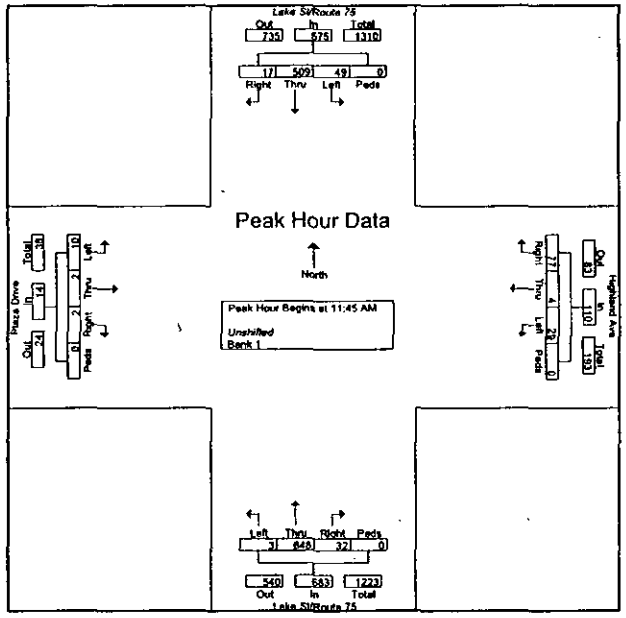
	Lake St/Route 75 Southbound				Highland Ave Westbound				Lake St/Route 75 Northbound				Plaza Drive Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
11:30 AM	4	134	4	0	19	0	3	0	3	139	0	0	1	0	4	0	311
11:45 AM	7	118	18	0	18	3	5	0	11	188	0	0	0	1	2	0	371
Total	11	252	22	0	37	3	8	0	14	327	0	0	1	1	6	0	682
12:00 PM	9	125	17	0	21	1	12	0	8	148	1	0	1	1	4	0	348
12:15 PM	1	142	6	0	22	0	4	0	7	156	0	0	1	0	2	0	341
12:30 PM	0	124	8	0	16	0	8	0	6	156	2	0	0	0	2	0	322
12:45 PM	2	110	13	0	13	0	8	0	5	123	0	0	0	1	2	0	277
Total	12	501	44	0	72	1	32	0	26	583	3	0	2	2	10	0	1288
01:00 PM	4	117	11	0	7	0	8	0	2	123	0	0	0	0	3	0	275
01:15 PM	5	108	6	0	13	2	7	0	5	97	0	0	0	0	7	0	250
Grand Total	32	978	83	0	129	6	55	0	47	1130	3	0	3	3	26	0	2495
Apprch %	2.9	89.5	7.6	0	67.9	3.2	28.9	0	4	95.8	0.3	0	9.4	9.4	81.2	0	
Total %	1.3	39.2	3.3	0	5.2	0.2	2.2	0	1.9	45.3	0.1	0	0.1	0.1	1	0	
Unshifted	32	978	83	0	129	6	55	0	47	1130	3	0	3	3	26	0	2495
% Unshifted	100	100	100	0	100	100	100	0	100	100	100	0	100	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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	Lake St/Route 75 Southbound					Highland Ave Westbound					Lake St/Route 75 Northbound					Plaza Drive Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	7	118	18	0	143	18	3	5	0	26	11	188	0	0	199	0	1	2	0	3	371
12:00 PM	9	125	17	0	151	21	1	12	0	34	8	148	1	0	157	1	1	4	0	6	348
12:15 PM	1	142	6	0	149	22	0	4	0	26	7	156	0	0	163	1	0	2	0	3	341
12:30 PM	0	124	8	0	132	16	0	8	0	24	6	156	2	0	164	0	0	2	0	2	322
Total Volume	17	509	49	0	575	77	4	29	0	110	32	648	3	0	683	2	2	10	0	14	1382
% App. Total	3	88.5	8.5	0		70	3.6	26.4	0		4.7	94.9	0.4	0		14.3	14.3	71.4	0		
PHF	.472	.896	.681	.000	.952	.875	.333	.604	.000	.809	.727	.862	.375	.000	.858	.500	.500	.625	.000	.583	.931



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File Name : Route75.Legion.PM
Site Code : 11111111
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Groups Printed- Unshifted - Bank 1

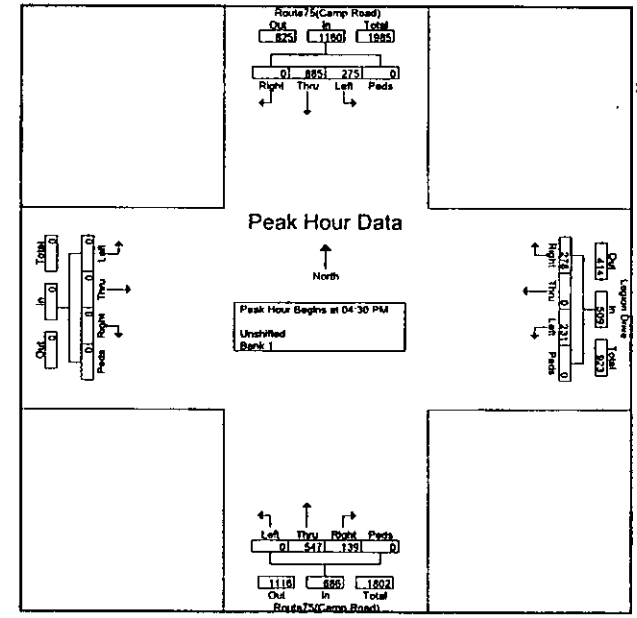
	Route75(Camp Road) Southbound				Legion Drive Westbound				Route75(Camp Road) Northbound				Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	227	83	0	63	0	58	0	26	134	0	0	0	0	0	0	591
04:15 PM	0	210	71	0	73	0	52	0	26	106	0	0	0	0	0	0	538
04:30 PM	0	214	68	0	62	0	60	0	31	131	0	0	0	0	0	0	566
04:45 PM	0	195	59	0	67	0	44	0	36	138	0	0	0	0	0	0	539
Total	0	846	281	0	265	0	214	0	119	509	0	0	0	0	0	0	2234
05:00 PM	0	230	82	0	87	0	64	0	36	144	0	0	0	0	0	0	643
05:15 PM	0	246	66	0	62	0	63	0	36	134	0	0	0	0	0	0	607
05:30 PM	0	216	66	0	58	0	43	0	38	134	0	0	0	0	0	0	555
05:45 PM	0	194	72	0	51	0	54	0	37	111	0	0	0	0	0	0	519
Total	0	886	286	0	258	0	224	0	147	523	0	0	0	0	0	0	2324
Grand Total	0	1732	567	0	523	0	438	0	266	1032	0	0	0	0	0	0	4558
Apprch %	0	75.3	24.7	0	54.4	0	45.6	0	20.5	79.5	0	0	0	0	0	0	
Total %	0	38	12.4	0	11.5	0	9.6	0	5.8	22.6	0	0	0	0	0	0	
Unshifted	0	1732	567	0	523	0	438	0	266	1032	0	0	0	0	0	0	4558
% Unshifted	0	100	100	0	100	0	100	0	100	100	0	0	0	0	0	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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	Route75(Camp Road) Southbound					Legion Drive Westbound					Route75(Camp Road) Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	214	68	0	282	62	0	60	0	122	31	131	0	0	162	0	0	0	0	0	566
04:45 PM	0	195	59	0	254	67	0	44	0	111	36	138	0	0	174	0	0	0	0	0	539
05:00 PM	0	230	82	0	312	87	0	64	0	151	36	144	0	0	180	0	0	0	0	0	643
05:15 PM	0	246	66	0	312	62	0	63	0	125	36	134	0	0	170	0	0	0	0	0	607
Total Volume	0	885	275	0	1160	278	0	231	0	509	139	547	0	0	686	0	0	0	0	0	2355
% App. Total	0	76.3	23.7	0		54.6	0	45.4	0		20.3	79.7	0	0		0	0	0	0		
PHF	.000	.899	.838	.000	.929	.799	.000	.902	.000	.843	.965	.950	.000	.000	.951	.000	.000	.000	.000	.000	.916



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File Name : Route75.Legion.SAT
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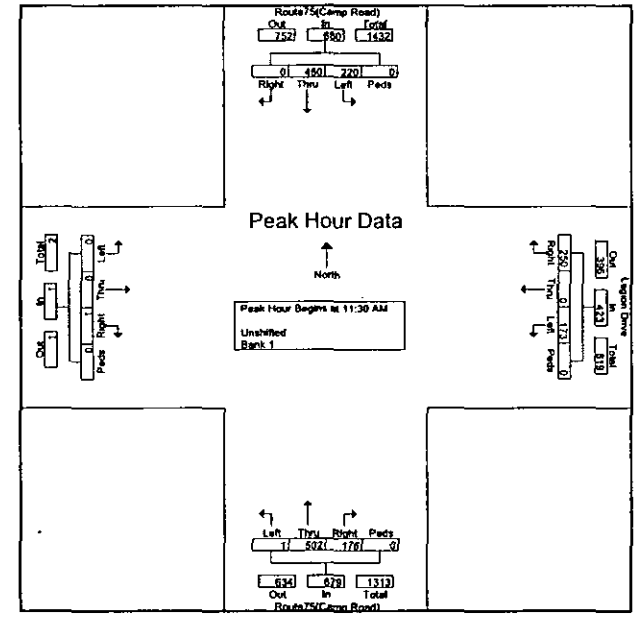
Groups Printed- Unshifted - Bank 1

	Route75(Camp Road) Southbound				Legion Drive Westbound				Route75(Camp Road) Northbound				Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
11:30 AM	0	124	48	0	57	0	49	0	42	151	0	0	1	0	0	0	472
11:45 AM	0	127	55	0	66	0	45	0	45	129	1	0	0	0	0	0	468
Total	0	251	103	0	123	0	94	0	87	280	1	0	1	0	0	0	940
12:00 PM	0	110	52	0	63	0	42	0	38	93	0	0	0	0	0	0	398
12:15 PM	0	99	65	0	64	0	37	0	51	129	0	0	0	0	0	0	445
12:30 PM	0	108	54	0	51	0	45	0	33	107	0	0	0	0	0	0	398
12:45 PM	0	129	55	0	45	0	44	0	47	104	0	0	0	0	0	0	424
Total	0	446	226	0	223	0	168	0	169	433	0	0	0	0	0	0	1665
01:00 PM	0	118	49	0	55	0	38	0	51	139	0	0	0	0	0	0	450
01:15 PM	0	126	50	0	62	0	36	0	33	135	0	0	0	0	0	0	442
Grand Total	0	941	428	0	463	0	336	0	340	987	1	0	1	0	0	0	3497
Apprch %	0	68.7	31.3	0	57.9	0	42.1	0	25.6	74.3	0.1	0	100	0	0	0	
Total %	0	26.9	12.2	0	13.2	0	9.6	0	9.7	28.2	0	0	0	0	0	0	
Unshifted	0	941	428	0	463	0	336	0	340	987	1	0	1	0	0	0	3497
% Unshifted	0	100	100	0	100	0	100	0	100	100	100	0	100	0	0	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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File Name : Route75.Legion.SAT
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	Route75(Camp Road) Southbound					Legion Drive Westbound					Route75(Camp Road) Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:30 AM																					
11:30 AM	0	124	48	0	172	57	0	49	0	106	42	151	0	0	193	1	0	0	0	1	472
11:45 AM	0	127	55	0	182	66	0	45	0	111	45	129	1	0	175	0	0	0	0	0	468
12:00 PM	0	110	52	0	162	63	0	42	0	105	38	93	0	0	131	0	0	0	0	0	398
12:15 PM	0	99	65	0	164	64	0	37	0	101	51	129	0	0	180	0	0	0	0	0	445
Total Volume	0	460	220	0	680	250	0	173	0	423	176	502	1	0	679	1	0	0	0	1	1783
% App. Total	0	67.6	32.4	0		59.1	0	40.9	0		25.9	73.9	0.1	0		100	0	0	0		
PHF	.000	.906	.846	.000	.934	.947	.000	.883	.000	.953	.863	.831	.250	.000	.840	.250	.000	.000	.000	.250	.944



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File Name : Route75.Scranton.PM
Site Code : 18888888
Start Date : 1/5/2007
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Groups Printed- Unshifted

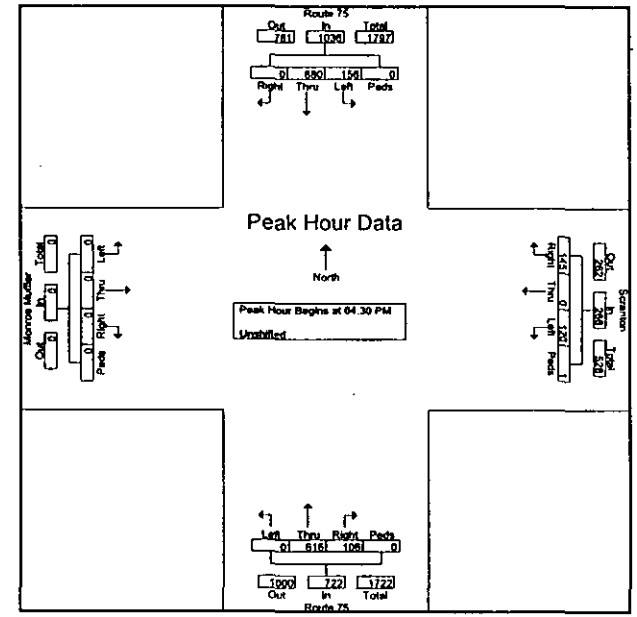
	Route 75 Southbound				Scranton Westbound				Route 75 Northbound				Monroe Muffler Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	178	46	0	34	0	32	0	25	181	0	1	0	0	0	0	497
04:15 PM	0	162	34	0	23	0	37	0	27	161	0	0	0	0	0	0	444
04:30 PM	0	221	32	0	35	0	16	1	20	156	0	0	0	0	0	0	481
04:45 PM	0	229	43	0	35	0	42	0	24	140	0	0	0	0	0	0	513
Total	0	790	155	0	127	0	127	1	96	638	0	1	0	0	0	0	1935
05:00 PM	0	224	40	0	34	0	29	0	29	166	0	0	0	0	0	0	522
05:15 PM	0	206	41	0	41	0	33	0	33	154	0	0	0	0	0	0	508
05:30 PM	0	189	37	0	35	0	28	0	11	158	0	0	0	0	0	0	458
05:45 PM	0	202	38	0	34	0	27	0	22	126	0	0	0	0	0	0	449
Total	0	821	156	0	144	0	117	0	95	604	0	0	0	0	0	0	1937
Grand Total	0	1611	311	0	271	0	244	1	191	1242	0	1	0	0	0	0	3872
Apprch %	0	83.8	16.2	0	52.5	0	47.3	0.2	13.3	86.6	0	0.1	0	0	0	0	
Total %	0	41.6	8	0	7	0	6.3	0	4.9	32.1	0	0	0	0	0	0	

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File Name : Route75.Scranton.PM
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	Route 75 Southbound					Scranton Westbound					Route 75 Northbound					Monroe Muffler Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	221	32	0	253	35	0	16	1	52	20	156	0	0	176	0	0	0	0	0	481
04:45 PM	0	229	43	0	272	35	0	42	0	77	24	140	0	0	164	0	0	0	0	0	513
05:00 PM	0	224	40	0	264	34	0	29	0	63	29	166	0	0	195	0	0	0	0	0	522
05:15 PM	0	206	41	0	247	41	0	33	0	74	33	154	0	0	187	0	0	0	0	0	508
Total Volume	0	880	156	0	1036	145	0	120	1	266	106	616	0	0	722	0	0	0	0	0	2024
% App. Total	0	84.9	15.1	0		54.5	0	45.1	0.4		14.7	85.3	0	0		0	0	0	0		
PHF	.000	.960	.907	.000	.952	.884	.000	.714	.250	.864	.803	.928	.000	.000	.926	.000	.000	.000	.000	.000	.969



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File Name : Route75.Scranton.SAT
Site Code : 28888888
Start Date : 1/6/2007
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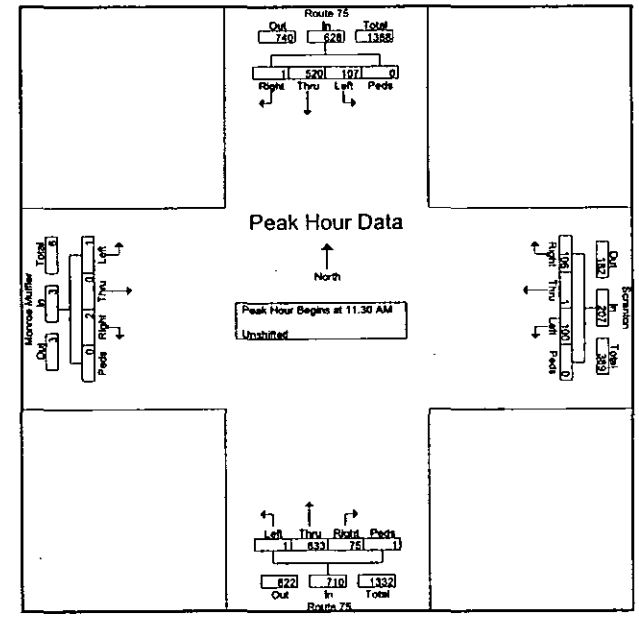
Groups Printed- Unshifted

	Route 75 Southbound				Scranton Westbound				Route 75 Northbound				Monroe Muffler Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
11:30 AM	0	137	28	0	26	1	32	0	18	165	0	0	1	0	0	0	408
11:45 AM	0	132	27	0	33	0	24	0	17	166	0	0	0	0	0	0	399
Total	0	269	55	0	59	1	56	0	35	331	0	0	1	0	0	0	807
12:00 PM	0	112	30	0	22	0	20	0	18	145	1	0	1	0	1	0	350
12:15 PM	1	139	22	0	25	0	24	0	22	157	0	1	0	0	0	0	391
12:30 PM	1	120	35	0	34	0	22	0	16	136	4	0	2	0	0	0	370
12:45 PM	2	129	34	0	31	0	15	0	23	131	0	0	2	0	1	0	368
Total	4	500	121	0	112	0	81	0	79	569	5	1	5	0	2	0	1479
01:00 PM	1	140	32	0	19	0	27	0	17	136	0	0	1	0	0	0	373
01:15 PM	0	145	25	0	26	0	14	0	20	140	0	0	0	0	0	0	370
Grand Total	5	1054	233	0	216	1	178	0	151	1176	5	1	7	0	2	0	3029
Apprch %	0.4	81.6	18	0	54.7	0.3	45.1	0	11.3	88.2	0.4	0.1	77.8	0	22.2	0	
Total %	0.2	34.8	7.7	0	7.1	0	5.9	0	5	38.8	0.2	0	0.2	0	0.1	0	

3495 Winton Place
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File Name : Route75.Scranton.SAT
Site Code : 28888888
Start Date : 1/6/2007
Page No : 2

	Route 75 Southbound					Scranton Westbound					Route 75 Northbound					Monroe Muffler Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:30 AM																					
11:30 AM	0	137	28	0	165	26	1	32	0	59	18	165	0	0	183	1	0	0	0	1	408
11:45 AM	0	132	27	0	159	33	0	24	0	57	17	166	0	0	183	0	0	0	0	0	399
12:00 PM	0	112	30	0	142	22	0	20	0	42	18	145	1	0	164	1	0	1	0	2	350
12:15 PM	1	139	22	0	162	25	0	24	0	49	22	157	0	1	180	0	0	0	0	0	391
Total Volume	1	520	107	0	628	106	1	100	0	207	75	633	1	1	710	2	0	1	0	3	1548
% App. Total	0.2	82.8	17	0		51.2	0.5	48.3	0		10.6	89.2	0.1	0.1		66.7	0	33.3	0		
PHF	.250	.935	.891	.000	.952	.803	.250	.781	.000	.877	.852	.953	.250	.250	.970	.500	.000	.250	.000	.375	.949



3495 Winton Place
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File Name : Route75.Sunset.PM
Site Code : 17777777
Start Date : 1/5/2007
Page No : 1

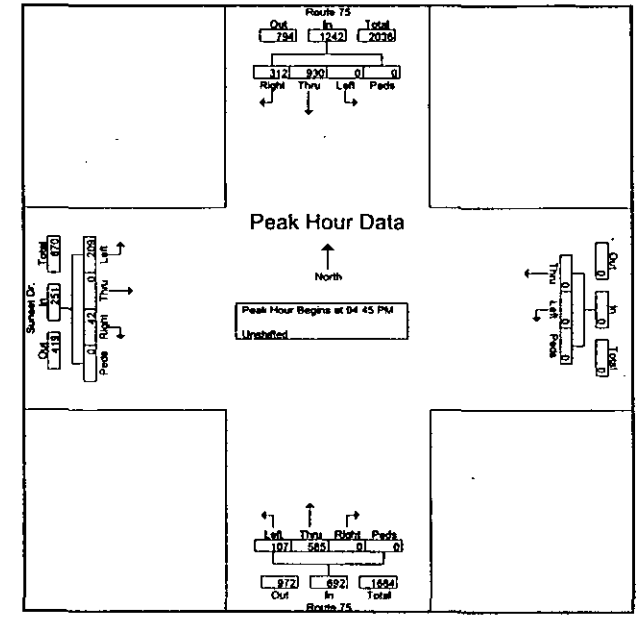
Groups Printed- Unshifted

	Route 75 Southbound				Westbound			Route 75 Northbound				Sunset Dr. Eastbound				
Start Time	Right	Thru	Left	Peds	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	70	202	0	0	0	0	0	0	147	41	0	13	0	49	0	522
04:15 PM	53	195	0	0	0	0	0	0	141	26	0	13	0	57	0	485
04:30 PM	61	218	0	0	0	0	0	0	135	26	0	13	0	40	0	493
04:45 PM	89	254	0	0	0	0	0	0	138	22	0	6	0	48	0	557
Total	273	869	0	0	0	0	0	0	561	115	0	45	0	194	0	2057
05:00 PM	87	245	0	0	0	0	0	0	150	25	0	16	0	51	0	574
05:15 PM	69	215	0	0	0	0	0	0	154	27	0	10	0	53	0	528
05:30 PM	67	216	0	0	0	0	0	0	143	33	0	10	0	57	0	526
05:45 PM	70	230	0	0	0	0	0	0	136	19	0	14	0	51	0	520
Total	293	906	0	0	0	0	0	0	583	104	0	50	0	212	0	2148
Grand Total	566	1775	0	0	0	0	0	0	1144	219	0	95	0	406	0	4205
Apprch %	24.2	75.8	0	0	0	0	0	0	83.9	16.1	0	19	0	81	0	
Total %	13.5	42.2	0	0	0	0	0	0	27.2	5.2	0	2.3	0	9.7	0	

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File Name : Route75.Sunset.PM
Site Code : 17777777
Start Date : 1/5/2007
Page No : 2

	Route 75 Southbound					Westbound				Route 75 Northbound					Sunset Dr. Eastbound					
Start Time	Right	Thru	Left	Peds	App Total	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 04:45 PM																				
04:45 PM	89	254	0	0	343	0	0	0	0	0	138	22	0	160	6	0	48	0	54	557
05:00 PM	87	245	0	0	332	0	0	0	0	0	150	25	0	175	16	0	51	0	67	574
05:15 PM	69	215	0	0	284	0	0	0	0	0	154	27	0	181	10	0	53	0	63	528
05:30 PM	67	216	0	0	283	0	0	0	0	0	143	33	0	176	10	0	57	0	67	526
Total Volume	312	930	0	0	1242	0	0	0	0	0	585	107	0	692	42	0	209	0	251	2185
% App. Total	25.1	74.9	0	0		0	0	0		0	84.5	15.5	0		16.7	0	83.3	0		
PHF	.876	.915	.000	.000	.905	.000	.000	.000	.000	.000	.950	.811	.000	.956	.656	.000	.917	.000	.937	.952



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File Name : Route75.Sunset.SAT
Site Code : 27777777
Start Date : 1/6/2007
Page No : 1

Groups Printed- Unshifted

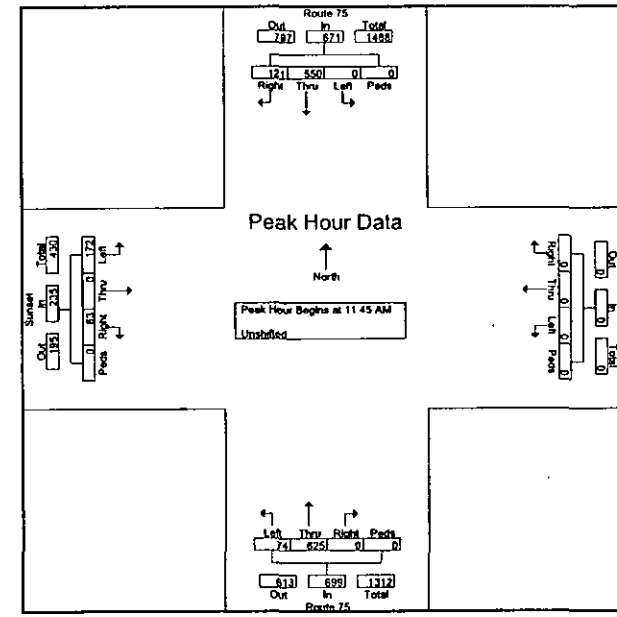
	Route 75 Southbound				Westbound				Route 75 Northbound				Sunset Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
11:30 AM	33	143	0	0	0	0	0	0	0	158	18	0	14	0	37	0	403
11:45 AM	27	142	0	0	0	0	0	0	0	157	22	0	16	0	43	0	407
Total	60	285	0	0	0	0	0	0	0	315	40	0	30	0	80	0	810
12:00 PM	27	137	0	0	0	0	0	0	0	151	19	0	15	0	44	0	393
12:15 PM	39	129	0	0	0	0	0	0	0	162	14	0	16	0	39	0	399
12:30 PM	28	142	0	0	0	0	0	0	0	155	19	0	16	0	46	0	406
12:45 PM	31	120	0	0	0	0	0	0	0	130	19	0	20	0	27	0	347
Total	125	528	0	0	0	0	0	0	0	598	71	0	67	0	156	0	1545
01:00 PM	42	142	0	0	0	0	0	0	0	144	18	0	15	0	34	0	395
01:15 PM	31	136	0	0	0	0	0	0	0	133	20	0	22	0	22	0	364
Grand Total	258	1091	0	0	0	0	0	0	0	1190	149	0	134	0	292	0	3114
Apprch %	19.1	80.9	0	0	0	0	0	0	0	88.9	11.1	0	31.5	0	68.5	0	
Total %	8.3	35	0	0	0	0	0	0	0	38.2	4.8	0	4.3	0	9.4	0	

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File Name : Route75.Sunset.SAT
Site Code : 27777777
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	Route 75 Southbound					Westbound					Route 75 Northbound					Sunset Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	27	142	0	0	169	0	0	0	0	0	0	157	22	0	179	16	0	43	0	59	407
12:00 PM	27	137	0	0	164	0	0	0	0	0	0	151	19	0	170	15	0	44	0	59	393
12:15 PM	39	129	0	0	168	0	0	0	0	0	0	162	14	0	176	16	0	39	0	55	399
12:30 PM	28	142	0	0	170	0	0	0	0	0	0	155	19	0	174	16	0	46	0	62	406
Total Volume	121	550	0	0	671	0	0	0	0	0	0	625	74	0	699	63	0	172	0	235	1605
% App. Total	18	82	0	0		0	0	0	0		0	89.4	10.6	0		26.8	0	73.2	0		
PHF	.776	.968	.000	.000	.987	.000	.000	.000	.000	.000	.000	.965	.841	.000	.976	.984	.000	.935	.000	.948	.986



3495 Winton Place
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File Name : Route75.CommercePlace.PM
Site Code : 10101010
Start Date : 1/5/2007
Page No : 1

Groups Printed- Unshifted

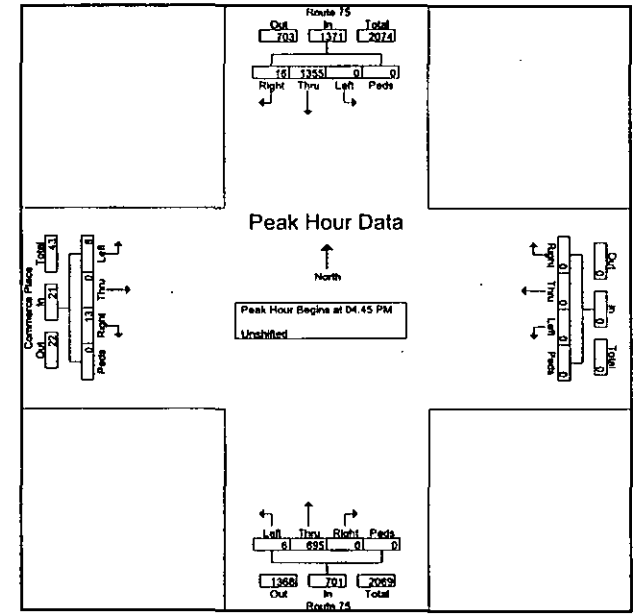
	Route 75 Southbound				Westbound				Route 75 Northbound				Commerce Place Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	2	289	0	0	0	0	0	0	0	203	0	0	3	0	4	0	501
04:15 PM	2	262	0	0	0	0	0	0	0	169	0	0	1	0	1	0	435
04:30 PM	0	298	0	0	0	0	0	0	0	156	1	0	3	0	5	0	463
04:45 PM	2	378	0	0	0	0	0	0	0	175	1	0	2	0	2	0	560
Total	6	1227	0	0	0	0	0	0	0	703	2	0	9	0	12	0	1959
05:00 PM	8	341	0	0	0	0	0	0	0	162	4	0	7	0	0	0	522
05:15 PM	5	324	0	0	0	0	0	0	0	176	0	0	2	0	5	0	512
05:30 PM	1	312	0	0	0	0	0	0	0	182	1	0	2	0	1	0	499
05:45 PM	3	299	0	0	0	0	0	0	0	160	2	0	3	0	1	0	468
Total	17	1276	0	0	0	0	0	0	0	680	7	0	14	0	7	0	2001
Grand Total	23	2503	0	0	0	0	0	0	0	1383	9	0	23	0	19	0	3960
Apprch %	0.9	99.1	0	0	0	0	0	0	0	99.4	0.6	0	54.8	0	45.2	0	
Total %	0.6	63.2	0	0	0	0	0	0	0	34.9	0.2	0	0.6	0	0.5	0	

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File Name : Route75.CommercePlace.PM
Site Code : 10101010
Start Date : 1/5/2007
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	Route 75 Southbound					Westbound					Route 75 Northbound					Commerce Place Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	2	378	0	0	380	0	0	0	0	0	0	175	1	0	176	2	0	2	0	4	560
05:00 PM	8	341	0	0	349	0	0	0	0	0	0	162	4	0	166	7	0	0	0	7	522
05:15 PM	5	324	0	0	329	0	0	0	0	0	0	176	0	0	176	2	0	5	0	7	512
05:30 PM	1	312	0	0	313	0	0	0	0	0	0	182	1	0	183	2	0	1	0	3	499
Total Volume	16	1355	0	0	1371	0	0	0	0	0	0	695	6	0	701	13	0	8	0	21	2093
% App. Total	1.2	98.8	0	0		0	0	0	0		0	99.1	0.9	0		61.9	0	38.1	0		
PHF	.500	.896	.000	.000	.902	.000	.000	.000	.000	.000	.000	.955	.375	.000	.958	.464	.000	.400	.000	.750	.934



3495 Winton Place
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File Name : Route75.CommercePlace.SAT
Site Code : 10101010
Start Date : 1/6/2007
Page No : 1

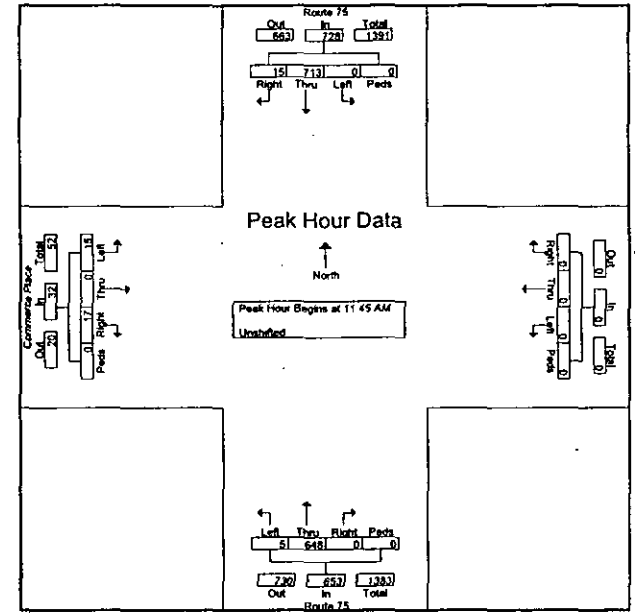
Groups Printed- Unshifted

	Route 75 Southbound				Westbound				Route 75 Northbound				Commerce Place Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
11:30 AM	2	161	0	0	0	0	0	0	0	154	1	0	2	0	3	0	323
11:45 AM	7	172	0	0	0	0	0	0	0	168	2	0	6	0	5	0	360
Total	9	333	0	0	0	0	0	0	0	322	3	0	8	0	8	0	683
12:00 PM	2	191	0	0	0	0	0	0	0	164	1	0	4	0	4	0	366
12:15 PM	3	170	0	0	0	0	0	0	0	148	0	0	3	0	3	0	327
12:30 PM	3	180	0	0	0	0	0	0	0	168	2	0	4	0	3	0	360
12:45 PM	4	161	0	0	0	0	0	0	0	145	1	0	2	0	7	0	320
Total	12	702	0	0	0	0	0	0	0	625	4	0	13	0	17	0	1373
01:00 PM	5	162	0	0	0	0	0	0	0	147	1	0	2	0	2	0	319
01:15 PM	2	172	0	0	0	0	0	0	0	134	1	0	1	0	3	0	313
Grand Total	28	1369	0	0	0	0	0	0	0	1228	9	0	24	0	30	0	2688
Apprch %	2	98	0	0	0	0	0	0	0	99.3	0.7	0	44.4	0	55.6	0	
Total %	1	50.9	0	0	0	0	0	0	0	45.7	0.3	0	0.9	0	1.1	0	

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File Name : Route75.CommercePlace.SAT
Site Code : 10101010
Start Date : 1/6/2007
Page No : 2

	Route 75 Southbound					Westbound					Route 75 Northbound					Commerce Place Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	7	172	0	0	179	0	0	0	0	0	0	168	2	0	170	6	0	5	0	11	360
12:00 PM	2	191	0	0	193	0	0	0	0	0	0	164	1	0	165	4	0	4	0	8	366
12:15 PM	3	170	0	0	173	0	0	0	0	0	0	148	0	0	148	3	0	3	0	6	327
12:30 PM	3	180	0	0	183	0	0	0	0	0	0	168	2	0	170	4	0	3	0	7	360
Total Volume	15	713	0	0	728	0	0	0	0	0	0	648	5	0	653	17	0	15	0	32	1413
% App. Total	2.1	97.9	0	0		0	0	0	0		0	99.2	0.8	0		53.1	0	46.9	0		
PHF	.536	.933	.000	.000	.943	.000	.000	.000	.000	.000	.000	.964	.625	.000	.960	.708	.000	.750	.000	.727	.965



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WB Right = to Rt 75 NB
WB thru = to Rt 75 SB
EB thru = Rt 75 SB to Thruway
EB Right = Rt 75 NB to Thruway

File Name : Rt75.Thruway.Ramps.PM
Site Code : 16666666
Start Date : 1/5/2007
Page No : 1

Groups Printed- Unshifted

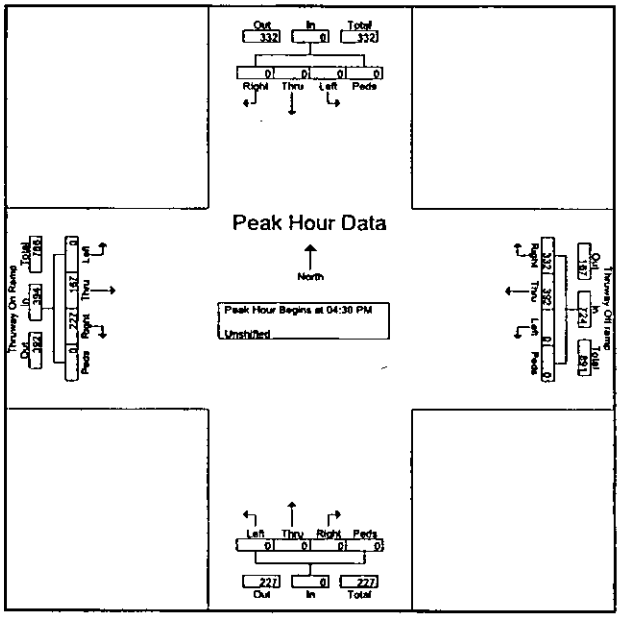
	Southbound				Thruway Off ramp Westbound				Northbound				Thruway On Ramp Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	65	77	0	0	0	0	0	0	78	50	0	0	270
04:15 PM	0	0	0	0	73	92	0	0	0	0	0	0	47	37	0	0	249
04:30 PM	0	0	0	0	86	82	0	0	0	0	0	0	62	44	0	0	274
04:45 PM	0	0	0	0	70	125	0	0	0	0	0	0	42	47	0	0	284
Total	0	0	0	0	294	376	0	0	0	0	0	0	229	178	0	0	1077
05:00 PM	0	0	0	0	70	100	0	0	0	0	0	0	78	40	0	0	288
05:15 PM	0	0	0	0	106	85	0	0	0	0	0	0	45	36	0	0	272
05:30 PM	0	0	0	0	78	74	0	0	0	0	0	0	52	22	0	0	226
05:45 PM	0	0	0	0	74	69	0	0	0	0	0	0	39	36	0	0	218
Total	0	0	0	0	328	328	0	0	0	0	0	0	214	134	0	0	1004
Grand Total	0	0	0	0	622	704	0	0	0	0	0	0	443	312	0	0	2081
Apprch %	0	0	0	0	46.9	53.1	0	0	0	0	0	0	58.7	41.3	0	0	
Total %	0	0	0	0	29.9	33.8	0	0	0	0	0	0	21.3	15	0	0	

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WB Right = to Rt 75 NB
WB thru = to Rt 75 SB
EB thru = Rt 75 SB to Thruway
EB Right = Rt 75 NB to Thruway

File Name : Rt75.Thruway.Ramps.PM
Site Code : 16666666
Start Date : 1/5/2007
Page No : 2

	Southbound					Thruway Off ramp Westbound					Northbound					Thruway On Ramp Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	0	0	86	82	0	0	168	0	0	0	0	0	62	44	0	0	106	274
04:45 PM	0	0	0	0	0	70	125	0	0	195	0	0	0	0	0	42	47	0	0	89	284
05:00 PM	0	0	0	0	0	70	100	0	0	170	0	0	0	0	0	78	40	0	0	118	288
05:15 PM	0	0	0	0	0	106	85	0	0	191	0	0	0	0	0	45	36	0	0	81	272
Total Volume	0	0	0	0	0	332	392	0	0	724	0	0	0	0	0	227	167	0	0	394	1118
% App. Total	0	0	0	0		45.9	54.1	0	0		0	0	0	0		57.6	42.4	0	0		
PHF	.000	.000	.000	.000	.000	.783	.784	.000	.000	.928	.000	.000	.000	.000	.000	.728	.886	.000	.000	.835	.970



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WB Right = to 75 north
WB thru = to 75 south
EB thru = 75 SB to Thruway
EB Right = 75 NB to Thruway

File Name : Rt75.Thruway.Ramps.SAT
Site Code : 26666666
Start Date : 1/6/2007
Page No : 1

Groups Printed- Unshifted

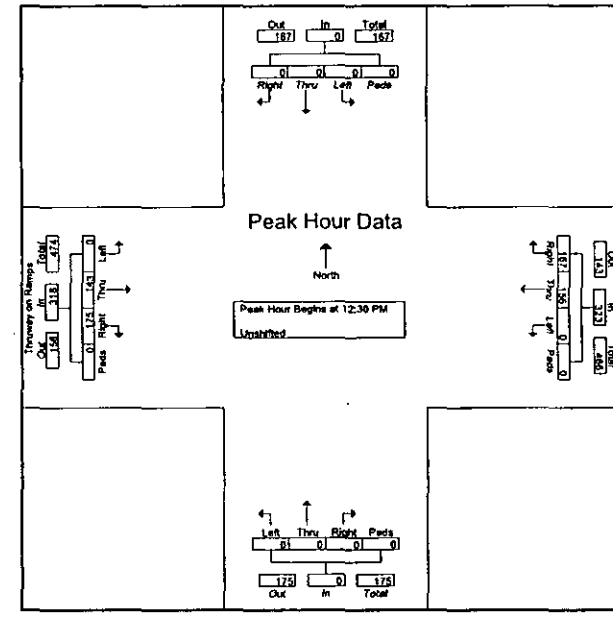
	Southbound				Thruway Off ramps Westbound				Northbound				Thruway on Ramps Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
11:30 AM	0	0	0	0	28	36	0	0	0	0	0	0	48	31	0	0	143
11:45 AM	0	0	0	0	31	39	0	0	0	0	0	0	57	36	0	0	163
Total	0	0	0	0	59	75	0	0	0	0	0	0	105	67	0	0	306
12:00 PM	0	0	0	0	35	36	0	0	0	0	0	0	55	31	1	0	158
12:15 PM	0	0	0	0	31	37	0	0	0	0	0	0	55	38	0	0	161
12:30 PM	0	0	0	0	36	48	0	0	0	0	0	0	34	25	0	0	143
12:45 PM	0	0	0	0	50	26	0	0	0	0	0	0	36	41	0	0	153
Total	0	0	0	0	152	147	0	0	0	0	0	0	180	135	1	0	615
01:00 PM	0	0	0	0	48	40	0	0	0	0	0	0	56	37	0	0	181
01:15 PM	0	0	0	0	33	42	0	0	0	0	0	0	49	40	0	0	164
Grand Total	0	0	0	0	292	304	0	0	0	0	0	0	390	279	1	0	1266
Apprch %	0	0	0	0	49	51	0	0	0	0	0	0	58.2	41.6	0.1	0	
Total %	0	0	0	0	23.1	24	0	0	0	0	0	0	30.8	22	0.1	0	

3495 Winton Place
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WB Right = to 75 north
WB thru = to 75 south
EB thru = 75 SB to Thruway
EB Right = 75 NB to Thruway

File Name : Rt75.Thruway.Ramps.SAT
Site Code : 26666666
Start Date : 1/6/2007
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	Southbound					Thruway Off ramps Westbound					Northbound					Thruway on Ramps Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30 PM																					
12:30 PM	0	0	0	0	0	36	48	0	0	84	0	0	0	0	0	34	25	0	0	59	143
12:45 PM	0	0	0	0	0	50	26	0	0	76	0	0	0	0	0	36	41	0	0	77	153
01:00 PM	0	0	0	0	0	48	40	0	0	88	0	0	0	0	0	56	37	0	0	93	181
01:15 PM	0	0	0	0	0	33	42	0	0	75	0	0	0	0	0	49	40	0	0	89	164
Total Volume	0	0	0	0	0	167	156	0	0	323	0	0	0	0	0	175	143	0	0	318	641
% App. Total	0	0	0	0		51.7	48.3	0	0		0	0	0	0		55	45	0	0		
PHF	.000	.000	.000	.000	.000	.835	.813	.000	.000	.918	.000	.000	.000	.000	.000	.781	.872	.000	.000	.855	.885



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File Name : Route75.Route20.PM
Site Code : 11111111
Start Date : 1/5/2007
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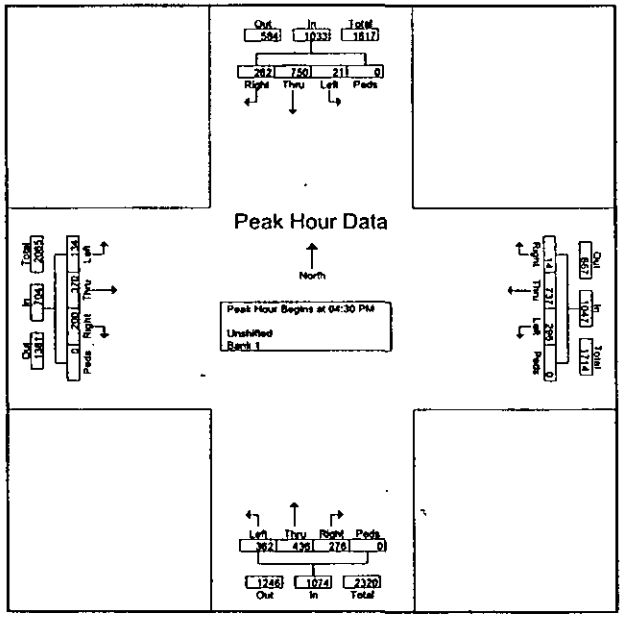
Groups Printed- Unshifted - Bank 1

	Southbound				Westbound				Northbound				Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	82	166	17	0	7	143	75	0	58	120	69	0	33	122	40	0	932
04:15 PM	59	143	6	0	3	149	52	0	53	108	90	0	52	106	25	0	846
04:30 PM	61	181	9	0	7	162	55	0	76	109	90	0	59	100	32	0	941
04:45 PM	64	201	3	0	0	209	52	0	57	115	89	0	45	93	27	0	955
Total	266	691	35	0	17	663	234	0	244	452	338	0	189	421	124	0	3674
05:00 PM	70	189	4	0	5	177	103	0	71	98	96	0	52	94	26	0	985
05:15 PM	67	179	5	0	2	189	86	0	72	114	87	0	44	83	49	0	977
05:30 PM	62	159	6	0	2	163	49	0	62	110	91	0	45	105	26	0	880
05:45 PM	74	191	7	0	2	135	45	0	79	120	103	0	46	89	27	0	918
Total	273	718	22	0	11	664	283	0	284	442	377	0	187	371	128	0	3760
Grand Total	539	1409	57	0	28	1327	517	0	528	894	715	0	376	792	252	0	7434
Apprch %	26.9	70.3	2.8	0	1.5	70.9	27.6	0	24.7	41.8	33.5	0	26.5	55.8	17.7	0	
Total %	7.3	19	0.8	0	0.4	17.9	7	0	7.1	12	9.6	0	5.1	10.7	3.4	0	
Unshifted	539	1409	57	0	28	1327	517	0	528	894	715	0	376	792	252	0	7434
% Unshifted	100	100	100	0	100	100	100	0	100	100	100	0	100	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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File Name : Route75.Route20.PM
Site Code : 11111111
Start Date : 1/5/2007
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	Southbound					Westbound					Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	61	181	9	0	251	7	162	55	0	224	76	109	90	0	275	59	100	32	0	191	941
04:45 PM	64	201	3	0	268	0	209	52	0	261	57	115	89	0	261	45	93	27	0	165	955
05:00 PM	70	189	4	0	263	5	177	103	0	285	71	98	96	0	265	52	94	26	0	172	985
05:15 PM	67	179	5	0	251	2	189	86	0	277	72	114	87	0	273	44	83	49	0	176	977
Total Volume	262	750	21	0	1033	14	737	296	0	1047	276	436	362	0	1074	200	370	134	0	704	3858
% App. Total	25.4	72.6	2	0		1.3	70.4	28.3	0		25.7	40.6	33.7	0		28.4	52.6	19	0		
PHF	.936	.933	.583	.000	.964	.500	.882	.718	.000	.916	.908	.948	.943	.000	.978	.847	.925	.684	.000	.921	.979



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File Name : Route75.Route20.SAT
Site Code : 77777777
Start Date : 1/6/2007
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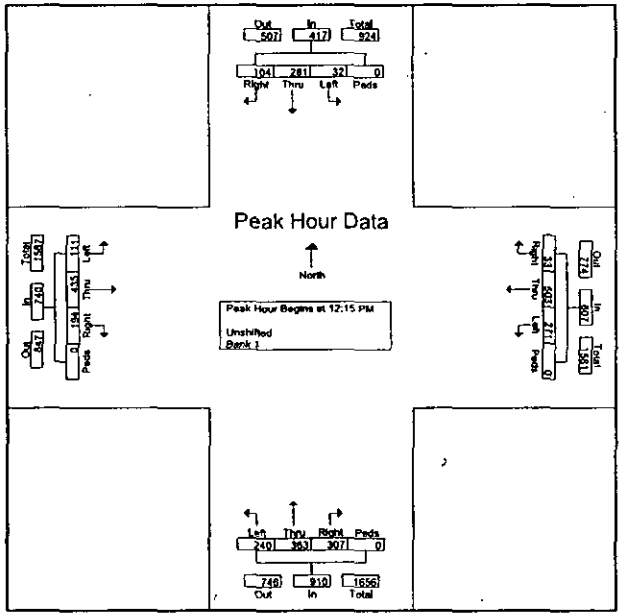
Groups Printed- Unshifted - Bank 1

Start Time	Southbound				Westbound				Northbound				Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
11:30 AM	29	74	10	0	4	93	65	0	81	90	44	0	62	97	38	0	687
11:45 AM	28	100	4	0	3	105	70	0	73	100	37	0	45	105	18	0	688
Total	57	174	14	0	7	198	135	0	154	190	81	0	107	202	56	0	1375
12:00 PM	31	85	8	0	1	99	51	0	74	81	68	0	35	96	28	0	657
12:15 PM	24	66	9	0	3	125	64	0	82	90	69	0	54	97	25	0	708
12:30 PM	27	75	7	0	15	127	71	0	72	80	62	0	48	100	30	0	714
12:45 PM	24	70	12	0	8	126	79	0	77	96	54	0	45	133	25	0	749
Total	106	296	36	0	27	477	265	0	305	347	253	0	182	426	108	0	2828
01:00 PM	29	70	4	0	7	125	57	0	76	97	55	0	47	105	31	0	703
01:15 PM	21	78	5	0	5	106	67	0	60	80	56	0	57	106	19	0	660
Grand Total	213	618	59	0	46	906	524	0	595	714	445	0	393	839	214	0	5566
Apprch %	23.9	69.4	6.6	0	3.1	61.4	35.5	0	33.9	40.7	25.4	0	27.2	58	14.8	0	
Total %	3.8	11.1	1.1	0	0.8	16.3	9.4	0	10.7	12.8	8	0	7.1	15.1	3.8	0	
Unshifted	213	618	59	0	46	906	524	0	595	714	445	0	393	839	214	0	5566
% Unshifted	100	100	100	0	100	100	100	0	100	100	100	0	100	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF & ASSOCIATES
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Rochester, NY 14623

File Name : Route75.Route20.SAT
Site Code : 77777777
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Start Time	Southbound					Westbound					Northbound					Eastbound					
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:15 PM																					
12:15 PM	24	66	9	0	99	3	125	64	0	192	82	90	69	0	241	54	97	25	0	176	708
12:30 PM	27	75	7	0	109	15	127	71	0	213	72	80	62	0	214	48	100	30	0	178	714
12:45 PM	24	70	12	0	106	8	126	79	0	213	77	96	54	0	227	45	133	25	0	203	749
01:00 PM	29	70	4	0	103	7	125	57	0	189	76	97	55	0	228	47	105	31	0	183	703
Total Volume	104	281	32	0	417	33	503	271	0	807	307	363	240	0	910	194	435	111	0	740	2874
% App. Total	24.9	67.4	7.7	0		4.1	62.3	33.6	0		33.7	39.9	26.4	0		26.2	58.8	15	0		
PHF	.897	.937	.667	.000	.956	.550	.990	.858	.000	.947	.936	.936	.870	.000	.944	.898	.818	.895	.000	.911	.959



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File Name : Route20.Rogers.PM
Site Code : 12222222
Start Date : 1/12/2007
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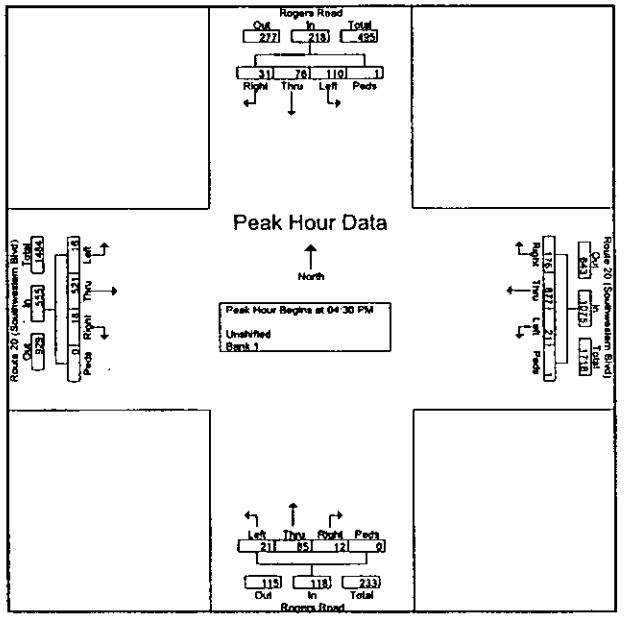
Groups Printed- Unshifted - Bank 1

	Rogers Road Southbound				Route 20 (Southwestern Blvd) Westbound				Rogers Road Northbound				Route 20 (Southwestern Blvd) Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	9	27	21	0	39	157	2	0	4	18	5	1	3	129	7	0	422
04:15 PM	6	26	24	0	35	190	4	1	2	19	5	0	3	132	7	0	454
04:30 PM	13	23	31	0	45	210	4	0	4	21	7	0	5	130	4	0	497
04:45 PM	4	10	29	0	35	220	4	1	3	15	4	0	6	142	5	0	478
Total	32	86	105	0	154	777	14	2	13	73	21	1	17	533	23	0	1851
05:00 PM	9	22	15	0	51	237	8	0	2	22	6	0	4	144	2	0	522
05:15 PM	5	21	35	1	45	210	5	0	3	27	4	0	3	105	5	0	469
05:30 PM	8	17	20	0	34	200	6	0	3	24	7	0	6	113	7	0	445
05:45 PM	9	17	23	0	68	179	6	2	5	21	7	0	5	127	2	0	471
Total	31	77	93	1	198	826	25	2	13	94	24	0	18	489	16	0	1907
Grand Total	63	163	198	1	352	1603	39	4	26	167	45	1	35	1022	39	0	3758
Apprch %	14.8	38.4	46.6	0.2	17.6	80.2	2	0.2	10.9	69.9	18.8	0.4	3.2	93.2	3.6	0	
Total %	1.7	4.3	5.3	0	9.4	42.7	1	0.1	0.7	4.4	1.2	0	0.9	27.2	1	0	
Unshifted	63	163	198	1	352	1603	39	4	26	167	45	1	35	1022	39	0	3758
% Unshifted	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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File Name : Route20.Rogers.PM
Site Code : 12222222
Start Date : 1/12/2007
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	Rogers Road Southbound					Route 20 (Southwestern Blvd) Westbound					Rogers Road Northbound					Route 20 (Southwestern Blvd) Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	13	23	31	0	67	45	210	4	0	259	4	21	7	0	32	5	130	4	0	139	497
04:45 PM	4	10	29	0	43	35	220	4	1	260	3	15	4	0	22	6	142	5	0	153	478
05:00 PM	9	22	15	0	46	51	237	8	0	296	2	22	6	0	30	4	144	2	0	150	522
05:15 PM	5	21	35	1	62	45	210	5	0	260	3	27	4	0	34	3	105	5	0	113	469
Total Volume	31	76	110	1	218	176	877	21	1	1075	12	85	21	0	118	18	521	16	0	555	1966
% App. Total	14.2	34.9	50.5	0.5		16.4	81.6	2	0.1		10.2	72	17.8	0		3.2	93.9	2.9	0		
PHF	.596	.826	.786	.250	.813	.863	.925	.656	.250	.908	.750	.787	.750	.000	.868	.750	.905	.800	.000	.907	.942



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File Name : Route20.Rogers.SAT
Site Code : 22222222
Start Date : 1/13/2007
Page No : 1

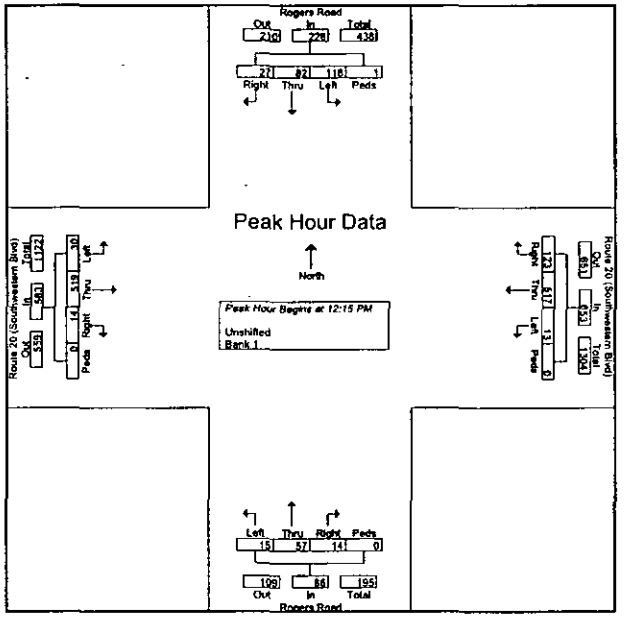
Groups Printed- Unshifted - Bank 1

	Rogers Road Southbound				Route 20 (Southwestern Blvd) Westbound				Rogers Road Northbound				Route 20 (Southwestern Blvd) Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
11:30 AM	4	22	31	0	20	124	2	0	2	17	3	0	7	138	3	0	373
11:45 AM	5	19	22	0	18	100	7	0	4	19	2	0	1	130	7	0	334
Total	9	41	53	0	38	224	9	0	6	36	5	0	8	268	10	0	707
12:00 PM	7	14	17	0	28	142	2	0	4	18	1	0	2	115	7	0	352
12:15 PM	8	15	28	0	39	123	2	0	1	14	3	0	4	131	7	0	375
12:30 PM	8	19	34	1	25	134	5	0	9	11	4	0	7	116	16	0	389
12:45 PM	7	25	21	0	31	130	1	0	2	16	2	0	1	138	3	0	377
Total	30	73	100	1	123	529	10	0	16	59	10	0	14	500	28	0	1493
01:00 PM	4	23	35	0	28	130	5	0	2	16	6	0	2	134	4	0	389
01:15 PM	4	6	30	0	22	134	1	0	3	12	1	0	3	129	3	0	348
Grand Total	47	143	218	1	211	1017	25	0	27	123	22	0	27	1031	45	0	2937
Apprch %	11.5	35	53.3	0.2	16.8	81.2	2	0	15.7	71.5	12.8	0	2.4	93.5	4.1	0	
Total %	1.6	4.9	7.4	0	7.2	34.6	0.9	0	0.9	4.2	0.7	0	0.9	35.1	1.5	0	
Unshifted	47	143	218	1	211	1017	25	0	27	123	22	0	27	1031	45	0	2937
% Unshifted	100	100	100	100	100	100	100	0	100	100	100	0	100	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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File Name : Route20.Rogers.SAT
Site Code : 22222222
Start Date : 1/13/2007
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	Rogers Road Southbound					Route 20 (Southwestern Blvd) Westbound					Rogers Road Northbound					Route 20 (Southwestern Blvd) Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:15 PM																					
12:15 PM	8	15	28	0	51	39	123	2	0	164	1	14	3	0	18	4	131	7	0	142	375
12:30 PM	8	19	34	1	62	25	134	5	0	164	9	11	4	0	24	7	116	16	0	139	389
12:45 PM	7	25	21	0	53	31	130	1	0	162	2	16	2	0	20	1	138	3	0	142	377
01:00 PM	4	23	35	0	62	28	130	5	0	163	2	16	6	0	24	2	134	4	0	140	389
Total Volume	27	82	118	1	228	123	517	13	0	653	14	57	15	0	86	14	519	30	0	563	1530
% App. Total	11.8	36	51.8	0.4		18.8	79.2	2	0		16.3	66.3	17.4	0		2.5	92.2	5.3	0		
PHF	.844	.820	.843	.250	.919	.788	.965	.650	.000	.995	.389	.891	.625	.000	.896	.500	.940	.469	.000	.991	.983



3495 Winton Place
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File Name : Route20.Sowles.PM
Site Code : 00000000
Start Date : 1/5/2007
Page No : 1

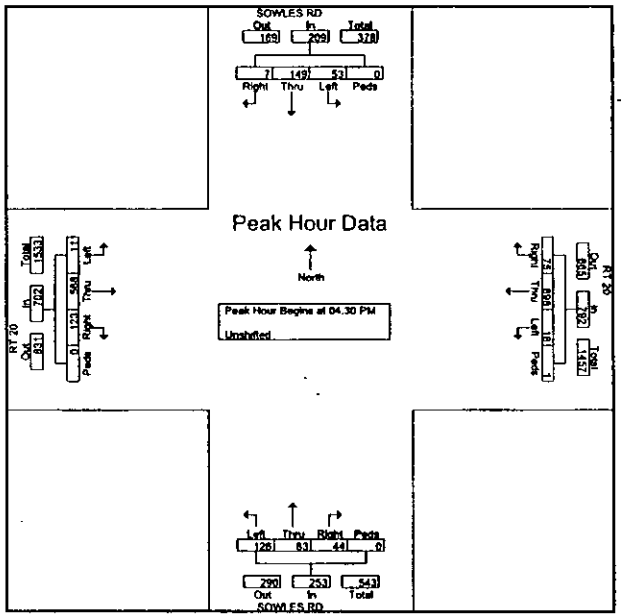
Groups Printed- Unshifted

	SOWLES RD Southbound				RT 20 Westbound				SOWLES RD Northbound				RT 20 Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	33	21	0	7	156	10	0	11	18	38	0	31	179	1	0	505
04:15 PM	2	28	7	0	9	149	4	0	7	21	27	0	25	125	5	0	409
04:30 PM	2	25	17	0	15	177	6	1	8	26	35	0	27	157	4	0	500
04:45 PM	0	38	10	0	10	176	4	0	17	23	34	0	30	129	3	0	474
Total	4	124	55	0	41	658	24	1	43	88	134	0	113	590	13	0	1888
05:00 PM	3	50	13	0	12	192	5	0	13	16	23	0	27	150	1	0	505
05:15 PM	2	36	13	0	38	153	3	0	6	18	34	0	39	132	3	0	477
05:30 PM	0	42	10	0	11	123	7	0	4	24	26	0	29	138	1	0	415
05:45 PM	2	24	12	0	9	138	2	0	8	16	23	0	31	145	1	0	411
Total	7	152	48	0	70	606	17	0	31	74	106	0	126	565	6	0	1808
Grand Total	11	276	103	0	111	1264	41	1	74	162	240	0	239	1155	19	0	3696
Apprch %	2.8	70.8	26.4	0	7.8	89.2	2.9	0.1	15.5	34	50.4	0	16.9	81.7	1.3	0	
Total %	0.3	7.5	2.8	0	3	34.2	1.1	0	2	4.4	6.5	0	6.5	31.2	0.5	0	

3495 Winton Place
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File Name : Route20.Sowles.PM
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	SOWLES RD Southbound					RT 20 Westbound					SOWLES RD Northbound					RT 20 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	2	25	17	0	44	15	177	6	1	199	8	26	35	0	69	27	157	4	0	188	500
04:45 PM	0	38	10	0	48	10	176	4	0	190	17	23	34	0	74	30	129	3	0	162	474
05:00 PM	3	50	13	0	66	12	192	5	0	209	13	16	23	0	52	27	150	1	0	178	505
05:15 PM	2	36	13	0	51	38	153	3	0	194	6	18	34	0	58	39	132	3	0	174	477
Total Volume	7	149	53	0	209	75	698	18	1	792	44	83	126	0	253	123	568	11	0	702	1956
% App. Total	3.3	71.3	25.4	0		9.5	88.1	2.3	0.1		17.4	32.8	49.8	0		17.5	80.9	1.6	0		
PHF	.583	.745	.779	.000	.792	.493	.909	.750	.250	.947	.647	.798	.900	.000	.855	.788	.904	.688	.000	.934	.968



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File Name : Route20.Sowles.SAT
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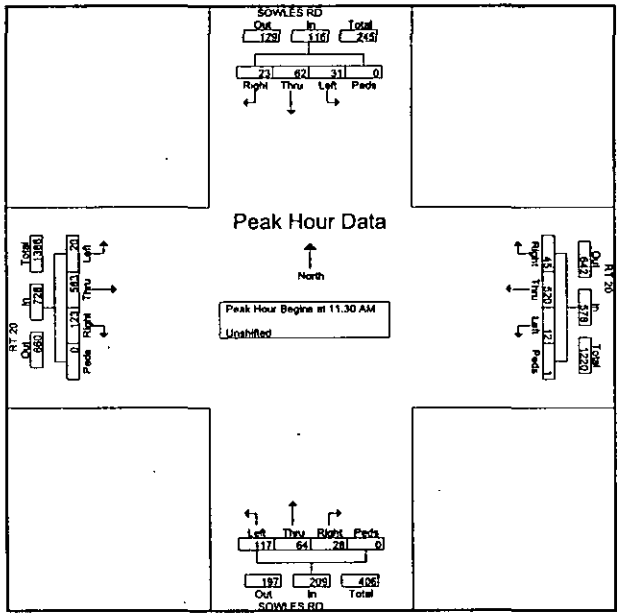
Groups Printed- Unshifted

	SOWLES RD Southbound				RT 20 Westbound				SOWLES RD Northbound				RT 20 Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
11:30 AM	5	16	11	0	13	125	4	0	5	24	29	0	32	134	5	0	403
11:45 AM	4	16	8	0	10	133	2	0	10	18	34	0	27	156	5	0	423
Total	9	32	19	0	23	258	6	0	15	42	63	0	59	290	10	0	826
12:00 PM	6	15	6	0	9	123	2	0	9	11	35	0	32	158	4	0	410
12:15 PM	8	15	6	0	13	139	4	1	4	11	19	0	32	135	6	0	393
12:30 PM	6	18	8	0	17	119	6	0	5	8	35	0	22	136	3	0	383
12:45 PM	6	13	4	0	12	137	4	0	4	16	23	0	36	156	4	0	415
Total	26	61	24	0	51	518	16	1	22	46	112	0	122	585	17	0	1601
01:00 PM	5	18	13	0	18	132	6	0	3	22	24	0	32	136	1	0	410
01:15 PM	2	13	8	0	11	132	3	3	4	16	24	0	34	144	5	0	399
Grand Total	42	124	64	0	103	1040	31	4	44	126	223	0	247	1155	33	0	3236
Apprch %	18.3	53.9	27.8	0	8.7	88.3	2.6	0.3	11.2	32.1	56.7	0	17.2	80.5	2.3	0	
Total %	1.3	3.8	2	0	3.2	32.1	1	0.1	1.4	3.9	6.9	0	7.6	35.7	1	0	

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	SOWLES RD Southbound					RT 20 Westbound					SOWLES RD Northbound					RT 20 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:30 AM																					
11:30 AM	5	16	11	0	32	13	125	4	0	142	5	24	29	0	58	32	134	5	0	171	403
11:45 AM	4	16	8	0	28	10	133	2	0	145	10	18	34	0	62	27	156	5	0	188	423
12:00 PM	6	15	6	0	27	9	123	2	0	134	9	11	35	0	55	32	158	4	0	194	410
12:15 PM	8	15	6	0	29	13	139	4	1	157	4	11	19	0	34	32	135	6	0	173	393
Total Volume	23	62	31	0	116	45	520	12	1	578	28	64	117	0	209	123	583	20	0	726	1629
% App. Total	19.8	53.4	26.7	0		7.8	90	2.1	0.2		13.4	30.6	56	0		16.9	80.3	2.8	0		
PHF	.719	.969	.705	.000	.906	.865	.935	.750	.250	.920	.700	.667	.836	.000	.843	.961	.922	.833	.000	.936	.963



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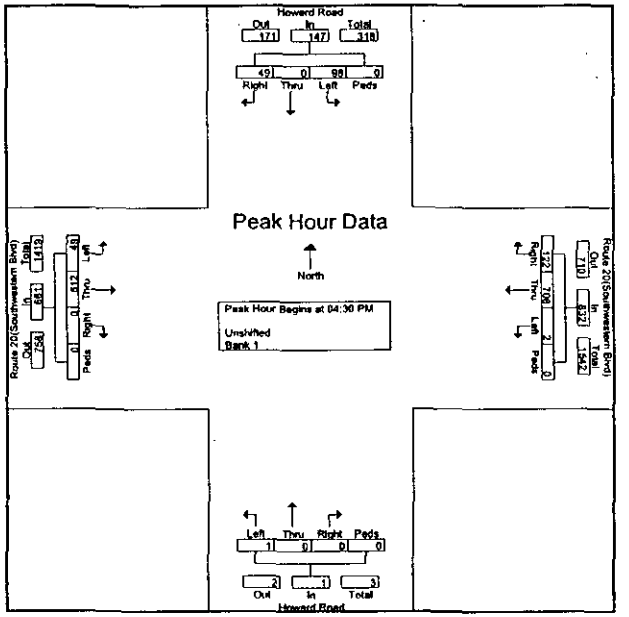
Groups Printed- Unshifted - Bank 1

	Howard Road Southbound				Route 20(Southwestern Blvd) Westbound				Howard Road Northbound				Route 20(Southwestern Blvd) Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	13	0	25	0	29	172	0	0	0	0	0	0	0	154	13	0	406
04:15 PM	16	0	32	0	28	152	0	0	0	0	0	0	0	134	11	0	373
04:30 PM	13	0	22	0	28	151	1	0	0	0	1	0	0	160	14	0	390
04:45 PM	9	0	22	0	34	187	0	0	0	0	0	0	0	154	7	0	413
Total	51	0	101	0	119	662	1	0	0	0	1	0	0	602	45	0	1582
05:00 PM	12	0	30	0	24	176	0	0	0	0	0	0	0	161	16	0	419
05:15 PM	15	0	24	0	36	194	1	0	0	0	0	0	0	137	12	0	419
05:30 PM	11	0	27	0	42	177	0	0	0	0	1	0	0	119	11	0	388
05:45 PM	12	0	35	0	29	148	0	0	0	0	0	0	0	144	11	0	379
Total	50	0	116	0	131	695	1	0	0	0	1	0	0	561	50	0	1605
Grand Total	101	0	217	0	250	1357	2	0	0	0	2	0	0	1163	95	0	3187
Apprch %	31.8	0	68.2	0	15.5	84.3	0.1	0	0	0	100	0	0	92.4	7.6	0	
Total %	3.2	0	6.8	0	7.8	42.6	0.1	0	0	0	0.1	0	0	36.5	3	0	
Unshifted	101	0	217	0	250	1357	2	0	0	0	2	0	0	1163	95	0	3187
% Unshifted	100	0	100	0	100	100	100	0	0	0	100	0	0	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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	Howard Road Southbound					Route 20(Southwestern Blvd) Westbound					Howard Road Northbound					Route 20(Southwestern Blvd) Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	13	0	22	0	35	28	151	1	0	180	0	0	1	0	1	0	160	14	0	174	390
04:45 PM	9	0	22	0	31	34	187	0	0	221	0	0	0	0	0	0	154	7	0	161	413
05:00 PM	12	0	30	0	42	24	176	0	0	200	0	0	0	0	0	0	161	16	0	177	419
05:15 PM	15	0	24	0	39	36	194	1	0	231	0	0	0	0	0	0	137	12	0	149	419
Total Volume	49	0	98	0	147	122	708	2	0	832	0	0	1	0	1	0	612	49	0	661	1641
% App. Total	33.3	0	66.7	0		14.7	85.1	0.2	0		0	0	100	0		0	92.6	7.4	0		
PHF	.817	.000	.817	.000	.875	.847	.912	.500	.000	.900	.000	.000	.250	.000	.250	.000	.950	.766	.000	.934	.979



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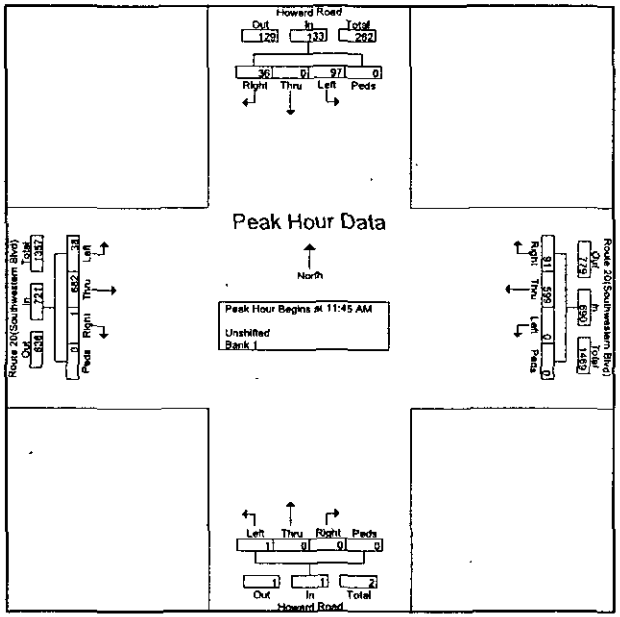
Groups Printed- Unshifted - Bank 1

	Howard Road Southbound				Route 20(Southwestern Blvd) Westbound				Howard Road Northbound				Route 20(Southwestern Blvd) Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
11:30 AM	8	0	19	0	22	125	0	0	0	0	0	0	0	165	6	0	345
11:45 AM	9	0	32	0	19	142	0	0	0	0	1	0	1	194	8	0	406
Total	17	0	51	0	41	267	0	0	0	0	1	0	1	359	14	0	751
12:00 PM	11	0	19	0	17	142	0	0	0	0	0	0	0	147	6	0	342
12:15 PM	6	0	30	0	30	152	0	0	0	0	0	0	0	167	12	0	397
12:30 PM	10	0	16	0	25	163	0	0	0	0	0	0	0	174	12	0	400
12:45 PM	8	0	19	0	20	166	0	0	0	0	0	0	0	151	11	0	375
Total	35	0	84	0	92	623	0	0	0	0	0	0	0	639	41	0	1514
01:00 PM	12	0	17	0	17	121	0	0	0	0	0	0	0	160	9	0	336
01:15 PM	8	0	18	0	30	160	0	0	0	0	0	0	1	170	11	0	398
Grand Total	72	0	170	0	180	1171	0	0	0	0	1	0	2	1328	75	0	2999
Apprch %	29.8	0	70.2	0	13.3	86.7	0	0	0	0	100	0	0.1	94.5	5.3	0	
Total %	2.4	0	5.7	0	6	39	0	0	0	0	0	0	0.1	44.3	2.5	0	
Unshifted	72	0	170	0	180	1171	0	0	0	0	1	0	2	1328	75	0	2999
% Unshifted	100	0	100	0	100	100	0	0	0	0	100	0	100	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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File Name : Rt20.Howard.SAT
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	Howard Road Southbound					Route 20(Southwestern Blvd) Westbound					Howard Road Northbound					Route 20(Southwestern Blvd) Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	9	0	32	0	41	19	142	0	0	161	0	0	1	0	1	1	194	8	0	203	406
12:00 PM	11	0	19	0	30	17	142	0	0	159	0	0	0	0	0	0	147	6	0	153	342
12:15 PM	6	0	30	0	36	30	152	0	0	182	0	0	0	0	0	0	167	12	0	179	397
12:30 PM	10	0	16	0	26	25	163	0	0	188	0	0	0	0	0	0	174	12	0	186	400
Total Volume	36	0	97	0	133	91	599	0	0	690	0	0	1	0	1	1	682	38	0	721	1545
% App. Total	27.1	0	72.9	0		13.2	86.8	0	0		0	0	100	0		0.1	94.6	5.3	0		
PHF	.818	.000	.758	.000	.811	.758	.919	.000	.000	.918	.000	.000	.250	.000	.250	.250	.879	.792	.000	.888	.951



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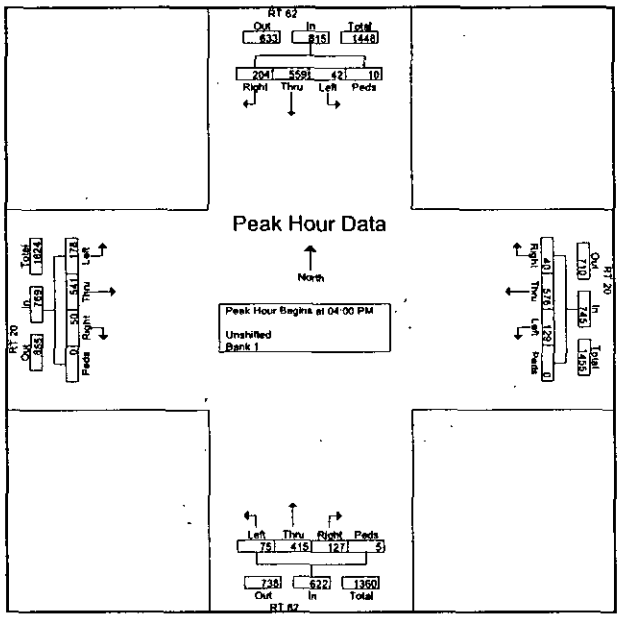
Groups Printed- Unshifted - Bank 1

	RT 62 Southbound				RT 20 Westbound				RT 62 Northbound				RT 20 Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	45	162	18	0	14	127	29	0	34	126	18	0	10	140	43	0	766
04:15 PM	45	127	11	0	8	144	25	0	29	101	17	5	9	121	42	0	684
04:30 PM	52	129	7	0	10	158	32	0	30	108	16	0	17	139	51	0	749
04:45 PM	62	141	6	10	8	147	43	0	34	80	24	0	14	141	42	0	752
Total	204	559	42	10	40	576	129	0	127	415	75	5	50	541	178	0	2951
05:00 PM	44	139	9	0	13	151	29	0	28	111	8	0	13	129	41	0	715
05:15 PM	46	154	6	0	3	153	47	0	28	114	16	0	18	107	38	1	731
05:30 PM	59	151	8	0	8	155	35	0	32	104	14	0	8	117	35	0	726
05:45 PM	49	105	9	0	9	138	27	0	38	117	12	0	19	110	56	0	689
Total	198	549	32	0	33	597	138	0	126	446	50	0	58	463	170	1	2861
Grand Total	402	1108	74	10	73	1173	267	0	253	861	125	5	108	1004	348	1	5812
Apprch %	25.2	69.5	4.6	0.6	4.8	77.5	17.6	0	20.3	69.2	10	0.4	7.4	68.7	23.8	0.1	
Total %	6.9	19.1	1.3	0.2	1.3	20.2	4.6	0	4.4	14.8	2.2	0.1	1.9	17.3	6	0	
Unshifted	402	1108	74	10	73	1173	267	0	253	861	125	5	108	1004	348	1	5812
% Unshifted	100	100	100	100	100	100	100	0	100	100	100	100	100	100	100	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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File Name : RT20.RT62.PM
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	RT 62 Southbound					RT 20 Westbound					RT 62 Northbound					RT 20 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	45	162	18	0	225	14	127	29	0	170	34	126	18	0	178	10	140	43	0	193	766
04:15 PM	45	127	11	0	183	8	144	25	0	177	29	101	17	5	152	9	121	42	0	172	684
04:30 PM	52	129	7	0	188	10	158	32	0	200	30	108	16	0	154	17	139	51	0	207	749
04:45 PM	62	141	6	10	219	8	147	43	0	198	34	80	24	0	138	14	141	42	0	197	752
Total Volume	204	559	42	10	815	40	576	129	0	745	127	415	75	5	622	50	541	178	0	769	2951
% App. Total	25	68.6	5.2	1.2		5.4	77.3	17.3	0		20.4	66.7	12.1	0.8		6.5	70.4	23.1	0		
PHF	.823	.863	.583	.250	.906	.714	.911	.750	.000	.931	.934	.823	.781	.250	.874	.735	.959	.873	.000	.929	.963



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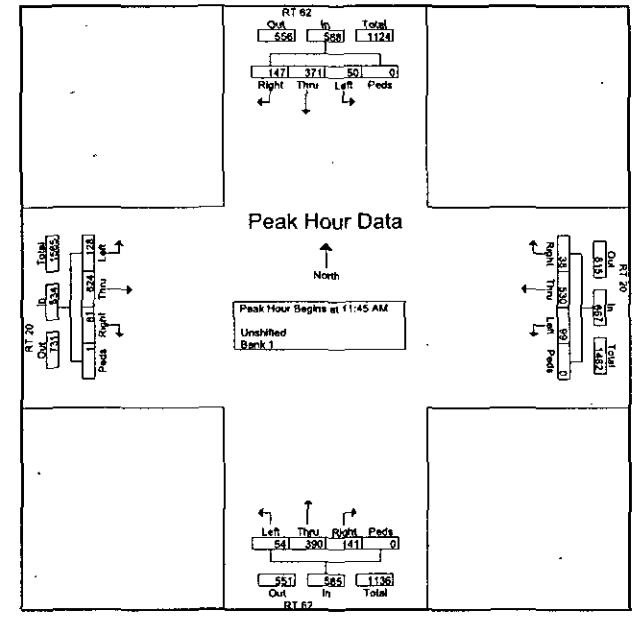
Groups Printed- Unshifted - Bank 1

	RT 62 Southbound				RT 20 Westbound				RT 62 Northbound				RT 20 Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
11:30 AM	42	90	4	0	4	135	28	0	38	110	12	0	21	137	38	0	639
11:45 AM	31	105	12	0	8	125	19	0	33	87	15	0	12	185	40	0	672
Total	73	195	16	0	12	240	47	0	71	197	27	0	33	322	78	0	1311
12:00 PM	38	92	10	0	15	128	35	0	32	103	9	0	33	146	17	1	659
12:15 PM	40	98	15	0	5	132	31	0	42	81	17	0	18	140	36	0	655
12:30 PM	38	76	13	0	10	145	14	0	34	119	13	0	18	153	35	0	668
12:45 PM	39	91	12	0	9	146	24	0	49	89	12	0	14	120	32	0	637
Total	155	357	50	0	39	551	104	0	157	392	51	0	83	559	120	1	2619
01:00 PM	28	59	6	0	2	126	40	0	48	85	9	0	18	167	37	0	625
01:15 PM	33	94	7	0	9	158	24	0	48	88	10	0	15	138	46	0	670
Grand Total	289	705	79	0	62	1075	215	0	324	762	97	0	149	1186	281	1	5225
Apprch %	26.9	65.7	7.4	0	4.6	79.5	15.9	0	27.4	64.4	8.2	0	9.2	73.3	17.4	0.1	
Total %	5.5	13.5	1.5	0	1.2	20.6	4.1	0	6.2	14.6	1.9	0	2.9	22.7	5.4	0	
Unshifted	289	705	79	0	62	1075	215	0	324	762	97	0	149	1186	281	1	5225
% Unshifted	100	100	100	0	100	100	100	0	100	100	100	0	100	100	100	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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	RT 62 Southbound					RT 20 Westbound					RT 62 Northbound					RT 20 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	31	105	12	0	148	8	125	19	0	152	33	87	15	0	135	12	185	40	0	237	672
12:00 PM	38	92	10	0	140	15	128	35	0	178	32	103	9	0	144	33	146	17	1	197	659
12:15 PM	40	98	15	0	153	5	132	31	0	168	42	81	17	0	140	18	140	36	0	194	655
12:30 PM	38	76	13	0	127	10	145	14	0	169	34	119	13	0	166	18	153	35	0	206	668
Total Volume	147	371	50	0	568	38	530	99	0	667	141	390	54	0	585	81	624	128	1	834	2654
% App. Total	25.9	65.3	8.8	0		5.7	79.5	14.8	0		24.1	66.7	9.2	0		9.7	74.8	15.3	0.1		
PHF	.919	.883	.833	.000	.928	.633	.914	.707	.000	.937	.839	.819	.794	.000	.881	.614	.843	.800	.250	.880	.987



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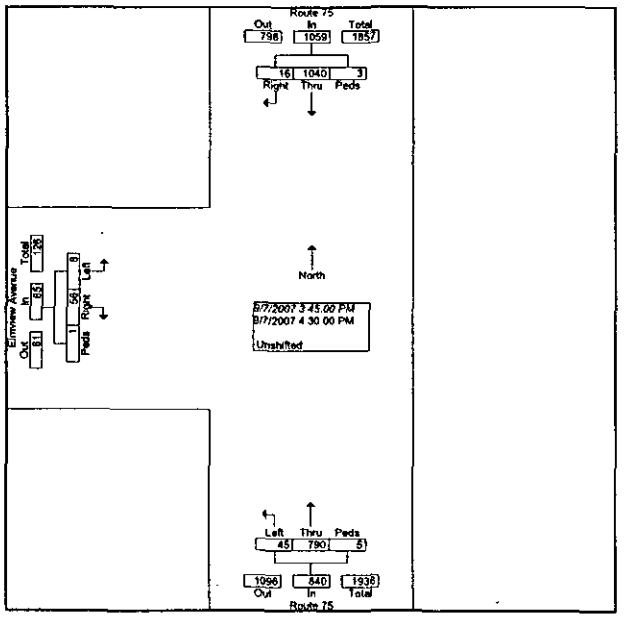
	Route 75 Southbound				Westbound				Route 75 Northbound				Elmview Avenue Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:45 PM	4	287	0	0	0	0	0	0	0	188	9	0	16	0	3	0	507
Total	4	287	0	0	0	0	0	0	0	188	9	0	16	0	3	0	507
04:00 PM	4	217	0	2	0	0	0	0	0	232	15	1	10	0	3	0	484
04:15 PM	5	246	0	1	0	0	0	0	0	179	11	3	15	0	1	0	461
04:30 PM	3	290	0	0	0	0	0	0	0	191	10	1	15	0	1	1	512
04:45 PM	7	276	0	2	0	0	0	0	0	184	11	0	9	0	0	1	490
Total	19	1029	0	5	0	0	0	0	0	786	47	5	49	0	5	2	1947
05:00 PM	2	281	0	0	0	0	0	0	0	188	10	0	18	0	4	0	483
05:15 PM	4	265	0	0	0	0	0	0	0	175	9	1	9	0	2	0	465
05:30 PM	5	243	0	2	0	0	0	0	0	194	11	0	12	0	4	0	471
Grand Total	34	2085	0	7	0	0	0	0	0	1531	86	6	104	0	18	2	3873
Apprch %	1.6	98.1	0.0	0.3	0.0	0.0	0.0	0.0	0.0	94.3	5.3	0.4	83.9	0.0	14.5	1.6	
Total %	0.9	53.8	0.0	0.2	0.0	0.0	0.0	0.0	0.0	39.5	2.2	0.2	2.7	0.0	0.5	0.1	

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	Route 75 Southbound					Westbound					Route 75 Northbound					Elmview Avenue Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 03:45 PM to 05:30 PM - Peak 1 of 1																					
Intersection	03:45 PM																				
Volume	16	1040	0	3	1059	0	0	0	0	0	0	790	45	5	840	56	0	8	1	65	1964
Percent	1.5	98.2	0.0	0.3		0.0	0.0	0.0	0.0		0.0	94.0	5.4	0.6		86.2	0.0	12.3	1.5		
04:30 Volume	3	290	0	0	293	0	0	0	0	0	0	191	10	1	202	15	0	1	1	17	512
Peak Factor																					0.959
High Int.	04:30 PM					3:30:00 PM					04:00 PM					03:45 PM					
Volume	3	290	0	0	293	0	0	0	0	0	0	232	15	1	248	16	0	3	0	19	
Peak Factor					0.90 4										0.84 7					0.85 5	



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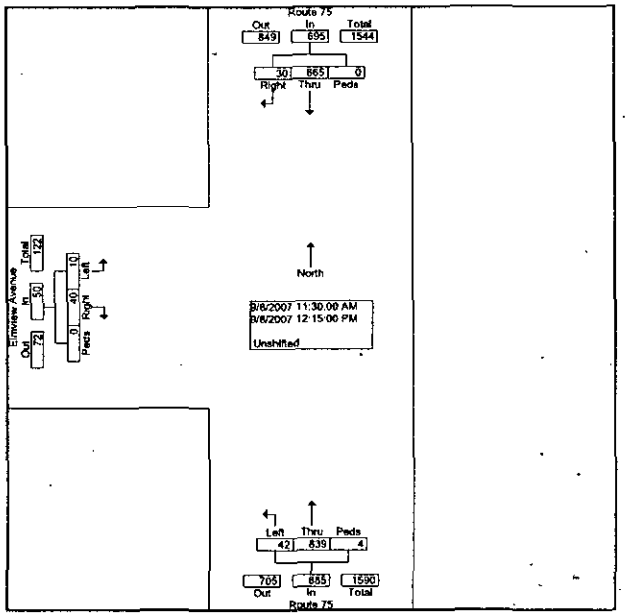
Groups Printed- Unshifted

Start Time	Route 75 Southbound				Westbound				Route 75 Northbound				Elmview Avenue Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
11:30 AM	9	167	0	0	0	0	0	0	0	205	18	1	9	0	4	0	413
11:45 AM	7	178	0	0	0	0	0	0	0	215	12	1	19	0	4	0	436
Total	16	345	0	0	0	0	0	0	0	420	30	2	28	0	8	0	849
12:00 PM	12	160	0	0	0	0	0	0	0	224	6	0	8	0	0	0	410
12:15 PM	2	160	0	0	0	0	0	0	0	195	6	2	4	0	2	0	371
12:30 PM	4	173	0	0	0	0	0	0	0	174	11	1	4	0	0	0	367
12:45 PM	6	171	0	1	0	0	0	0	0	166	12	0	9	0	3	1	369
Total	24	664	0	1	0	0	0	0	0	759	35	3	25	0	5	1	1517
01:00 PM	4	156	0	0	0	0	0	0	0	157	6	0	10	0	4	0	337
01:15 PM	5	161	0	2	0	0	0	0	0	171	8	0	5	0	4	0	356
Grand Total	49	1326	0	3	0	0	0	0	0	1507	79	5	68	0	21	1	3059
Apprch %	3.6	96.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	94.7	5.0	0.3	75.6	0.0	23.3	1.1	
Total %	1.6	43.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	49.3	2.6	0.2	2.2	0.0	0.7	0.0	

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Start Time	Route 75 Southbound					Westbound					Route 75 Northbound					Elmview Avenue Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Intersection	11:30 AM																				
Volume	30	665	0	0	695	0	0	0	0	0	0	839	42	4	885	40	0	10	0	50	1630
Percent	4.3	95.7	0.0	0.0		0.0	0.0	0.0	0.0		0.0	94.8	4.7	0.5		80.0	0.0	20.0	0.0		
11:45 Volume	7	178	0	0	185	0	0	0	0	0	0	215	12	1	228	19	0	4	0	23	436
Peak Factor																					0.935
High Int.	11:45 AM					11:15:00 AM					12:00 PM					11:45 AM					
Volume	7	178	0	0	185	0	0	0	0	0	0	224	6	0	230	19	0	4	0	23	
Peak Factor					0.93										0.96					0.54	
					9										2					3	



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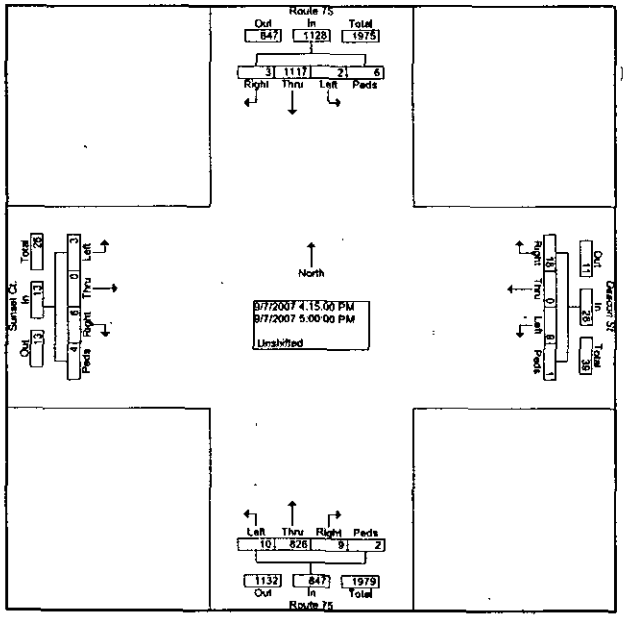
Groups Printed- Unshifted

	Route 75 Southbound				Deacon St. Westbound				Route 75 Northbound				Sunset Ct. Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:45 PM	0	282	0	1	1	0	5	0	0	204	3	0	3	0	1	0	500
Total	0	282	0	1	1	0	5	0	0	204	3	0	3	0	1	0	500
04:00 PM	1	258	1	0	3	0	0	0	0	231	3	0	3	0	1	0	501
04:15 PM	0	262	0	1	6	0	3	0	0	207	1	2	4	0	0	1	487
04:30 PM	0	283	0	3	3	0	1	1	3	210	2	0	0	0	0	3	509
04:45 PM	3	292	1	0	4	0	2	0	2	202	4	0	2	0	2	0	514
Total	4	1095	2	4	16	0	6	1	5	850	10	2	9	0	3	4	2011
05:00 PM	0	280	1	2	5	0	3	0	4	207	3	0	0	0	1	0	506
05:15 PM	1	274	2	1	6	0	3	0	1	193	1	1	3	0	0	0	486
05:30 PM	1	254	1	0	4	1	4	0	2	215	4	0	3	0	1	0	490
Grand Total	6	2185	6	8	32	1	21	1	12	1669	21	3	18	0	6	4	3993
Apprch %	0.3	99.1	0.3	0.4	58.2	1.8	38.2	1.8	0.7	97.9	1.2	0.2	64.3	0.0	21.4	14.3	
Total %	0.2	54.7	0.2	0.2	0.8	0.0	0.5	0.0	0.3	41.8	0.5	0.1	0.5	0.0	0.2	0.1	

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	Route 75 Southbound					Deacon St. Westbound					Route 75 Northbound					Sunset Ct. Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 03:45 PM to 05:30 PM - Peak 1 of 1																					
Intersection	04:15 PM																				
Volume	3	1117	2	6	1128	18	0	9	1	28	9	826	10	2	847	6	0	3	4	13	2016
Percent	0.3	99.0	0.2	0.5		64.3	0.0	32.1	3.6		1.1	97.5	1.2	0.2		46.2	0.0	23.1	30.8		
04:45 Volume	3	292	1	0	296	4	0	2	0	6	2	202	4	0	208	2	0	2	0	4	514
Peak Factor																					0.981
High Int.	04:45 PM					04:15 PM					04:30 PM					04:15 PM					
Volume	3	292	1	0	296	6	0	3	0	9	3	210	2	0	215	4	0	0	1	5	
Peak Factor					0.95					0.77					0.98					0.65	
					3					8					5					0	



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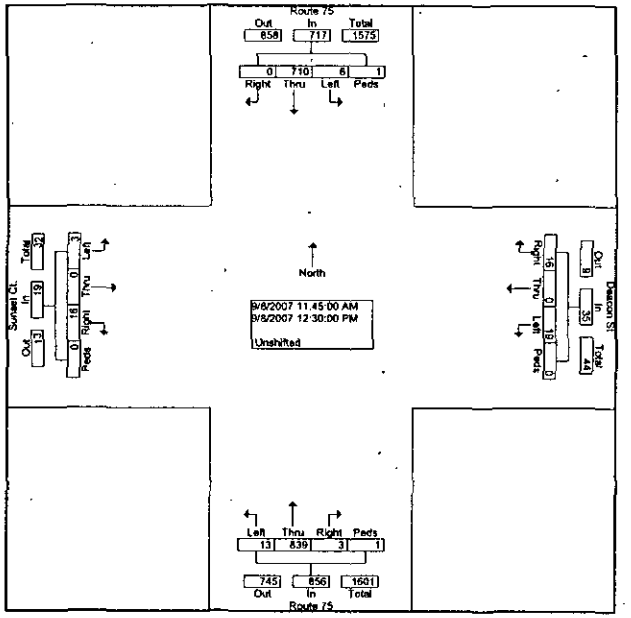
Groups Printed- Unshifted

	Route 75 Southbound				Deacon St. Westbound				Route 75 Northbound				Sunset Ct. Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
11:30 AM	0	177	1	0	0	0	6	0	2	201	3	1	4	0	2	0	397
11:45 AM	0	203	2	0	7	0	5	0	1	211	2	1	2	0	1	0	435
Total	0	380	3	0	7	0	11	0	3	412	5	2	6	0	3	0	832
12:00 PM	0	161	0	0	4	0	0	0	1	244	5	0	6	0	1	0	422
12:15 PM	0	155	2	1	3	0	8	0	1	195	2	0	2	0	1	0	370
12:30 PM	0	191	2	0	2	0	6	0	0	189	4	0	6	0	0	0	400
12:45 PM	0	169	1	1	2	0	8	0	2	181	3	2	4	0	0	0	373
Total	0	676	5	2	11	0	22	0	4	809	14	2	18	0	2	0	1565
01:00 PM	0	145	0	0	7	0	3	0	4	155	3	0	8	0	2	0	327
01:15 PM	1	176	0	2	2	0	6	0	0	156	4	0	0	0	2	0	349
Grand Total	1	1377	8	4	27	0	42	0	11	1532	26	4	32	0	9	0	3073
Apprch %	0.1	99.1	0.6	0.3	39.1	0.0	60.9	0.0	0.7	97.4	1.7	0.3	78.0	0.0	22.0	0.0	
Total %	0.0	44.8	0.3	0.1	0.9	0.0	1.4	0.0	0.4	49.9	0.8	0.1	1.0	0.0	0.3	0.0	

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	Route 75 Southbound					Deacon St. Westbound					Route 75 Northbound					Sunset Ct. Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Intersection	11:45 AM																				
Volume	0	710	6	1	717	16	0	19	0	35	3	839	13	1	856	16	0	3	0	19	1627
Percent	0.0	99.0	0.8	0.1		45.7	0.0	54.3	0.0		0.4	98.0	1.5	0.1		84.2	0.0	15.8	0.0		
11:45 Volume	0	203	2	0	205	7	0	5	0	12	1	211	2	1	215	2	0	1	0	3	435
Peak Factor																					0.935
High Int.	11:45 AM					11:45 AM					12:00 PM					12:00 PM					
Volume	0	203	2	0	205	7	0	5	0	12	1	244	5	0	250	6	0	1	0	7	
Peak Factor					0.87					0.72					0.85					0.67	
					4					9					6					9	



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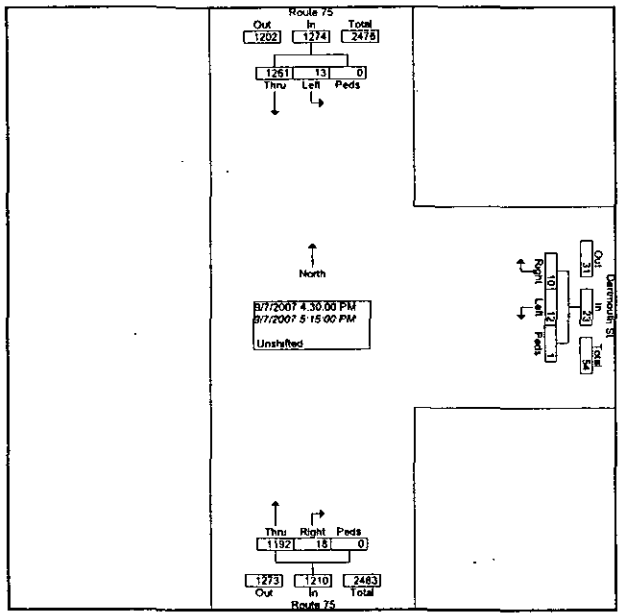
Groups Printed- Unshifted

	Route 75 Southbound				Dartmouth St. Westbound				Route 75 Northbound				Dartmouth St. Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:45 PM	0	301	1	0	1	0	5	0	12	264	0	0	0	0	0	0	584
Total	0	301	1	0	1	0	5	0	12	264	0	0	0	0	0	0	584
04:00 PM	0	240	1	1	3	0	5	0	11	265	0	1	0	0	0	0	527
04:15 PM	0	280	4	0	4	0	0	0	4	285	0	0	0	0	0	0	577
04:30 PM	0	347	3	0	3	0	2	1	8	286	0	0	0	0	0	0	650
04:45 PM	0	282	4	0	2	0	5	0	5	289	0	0	0	0	0	0	587
Total	0	1149	12	1	12	0	12	1	28	1125	0	1	0	0	0	0	2341
05:00 PM	0	322	2	0	5	0	4	0	1	312	0	0	0	0	0	0	646
05:15 PM	0	310	4	0	0	0	1	0	4	305	0	0	0	0	0	0	624
05:30 PM	0	283	3	0	4	0	4	0	4	290	0	2	0	0	0	0	590
Grand Total	0	2365	22	1	22	0	26	1	49	2296	0	3	0	0	0	0	4785
Apprch %	0.0	99.0	0.9	0.0	44.9	0.0	53.1	2.0	2.1	97.8	0.0	0.1	0.0	0.0	0.0	0.0	
Total %	0.0	49.4	0.5	0.0	0.5	0.0	0.5	0.0	1.0	48.0	0.0	0.1	0.0	0.0	0.0	0.0	

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	Route 75 Southbound					Dartmouth St. Westbound					Route 75 Northbound					Dartmouth St. Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 03:45 PM to 05:30 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	0	1281	13	0	1274	10	0	12	1	23	18	1192	0	0	1210	0	0	0	0	0	2507
Percent	0.0	99.0	1.0	0.0		43.5	0.0	52.2	4.3		1.5	98.5	0.0	0.0		0.0	0.0	0.0	0.0		
04:30 Volume	0	347	3	0	350	3	0	2	1	6	8	286	0	0	294	0	0	0	0	0	650
Peak Factor																					0.964
High Int.	04:30 PM					05:00 PM					05:00 PM					3:30:00 PM					
Volume	0	347	3	0	350	5	0	4	0	9	1	312	0	0	313						
Peak Factor					0.91					0.63					0.96						
					0					9					6						



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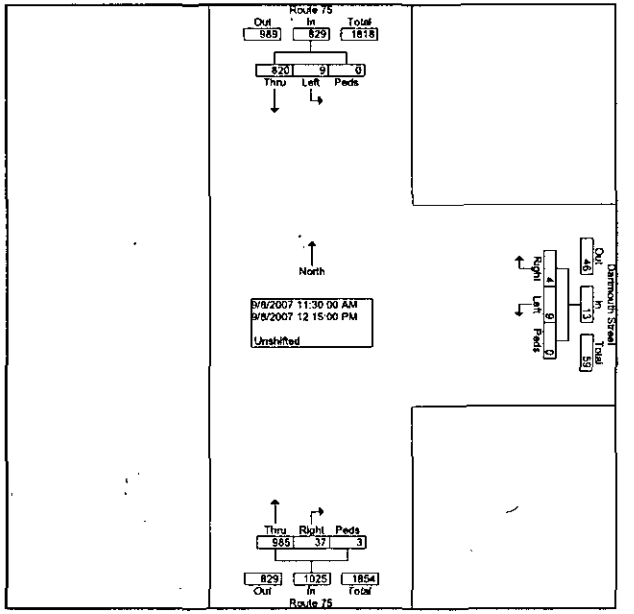
Groups Printed- Unshifted

Start Time	Route 75 Southbound Right	Thru	Left	Peds	Dartmouth Street Westbound Right	Thru	Left	Peds	Route 75 Northbound Right	Thru	Left	Peds	Eastbound Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
11:30 AM	0	218	3	0	0	0	2	0	16	229	0	2	0	0	0	0	470
11:45 AM	0	223	4	0	1	0	3	0	9	274	0	1	0	0	0	0	515
Total	0	441	7	0	1	0	5	0	25	503	0	3	0	0	0	0	985
12:00 PM	0	194	1	0	0	0	1	0	7	244	0	0	0	0	0	0	447
12:15 PM	0	185	1	0	3	0	3	0	5	238	0	0	0	0	0	0	435
12:30 PM	0	219	1	0	1	0	2	0	7	237	0	0	0	0	0	0	467
12:45 PM	0	185	4	0	2	0	5	0	10	201	0	0	0	0	0	0	407
Total	0	783	7	0	6	0	11	0	29	920	0	0	0	0	0	0	1756
01:00 PM	0	164	5	1	5	0	7	0	5	196	0	2	0	0	0	0	385
01:15 PM	0	193	5	0	4	0	1	0	9	202	1	1	0	0	0	0	416
Grand Total	0	1581	24	1	16	0	24	0	68	1821	1	6	0	0	0	0	3542
Apprch %	0.0	98.4	1.5	0.1	40.0	0.0	60.0	0.0	3.6	96.0	0.1	0.3	0.0	0.0	0.0	0.0	
Total %	0.0	44.6	0.7	0.0	0.5	0.0	0.7	0.0	1.9	51.4	0.0	0.2	0.0	0.0	0.0	0.0	

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Rochester, NY 14623

File Name : Route75.Dartmouth.SAT
Site Code : 02607722
Start Date : 9/8/2007
Page No : 2

Start Time	Route 75 Southbound Right	Thru	Left	Peds	App. Total	Dartmouth Street Westbound Right	Thru	Left	Peds	App. Total	Route 75 Northbound Right	Thru	Left	Peds	App. Total	Eastbound Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Intersection	11:30 AM																				
Volume	0	820	9	0	829	4	0	9	0	13	37	985	0	3	1025	0	0	0	0	0	1867
Percent	0.0	98.9	1.1	0.0		30.8	0.0	69.2	0.0		3.6	96.1	0.0	0.3		0.0	0.0	0.0	0.0		
11:45 Volume	0	223	4	0	227	1	0	3	0	4	9	274	0	1	284	0	0	0	0	0	515
Peak Factor																					0.906
High Int.	11:45 AM					12:15 PM					11:45 AM					11:15:00 AM					
Volume	0	223	4	0	227	3	0	3	0	6	9	274	0	1	284						
Peak Factor					0.91					0.54					0.90						
					3					2					2						



SRF & Associates
3495 Winton Place, E-110
Rochester, NY 14623

File Name : Route75.Columbia.PM
Site Code : 02607711
Start Date : 9/7/2007
Page No : 1

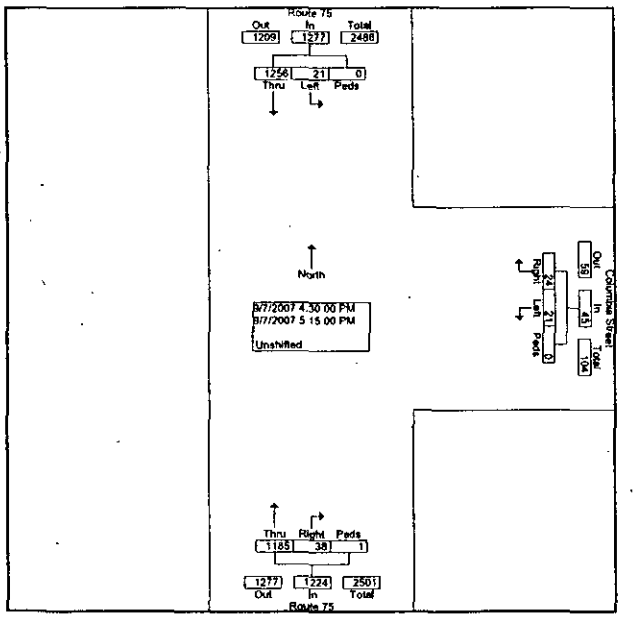
Groups Printed- Unshifted

	Route 75 Southbound				Columbia Street Westbound				Route 75 Northbound				Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:45 PM	0	298	4	0	1	0	3	0	4	254	0	0	0	0	0	0	564
Total	0	298	4	0	1	0	3	0	4	254	0	0	0	0	0	0	564
04:00 PM	0	242	4	1	7	0	7	0	5	262	0	1	0	0	0	0	529
04:15 PM	0	265	1	0	5	0	2	0	8	257	0	0	0	0	0	0	538
04:30 PM	0	348	7	0	6	0	3	0	8	284	0	1	0	0	0	0	657
04:45 PM	0	278	5	0	6	0	10	0	8	281	0	0	0	0	0	0	588
Total	0	1133	17	1	24	0	22	0	29	1084	0	2	0	0	0	0	2312
05:00 PM	0	322	6	0	4	0	4	0	10	314	0	0	0	0	0	0	660
05:15 PM	0	308	3	0	8	0	4	0	12	306	0	0	0	0	0	0	641
05:30 PM	0	289	11	0	8	0	2	0	10	287	0	2	0	0	0	0	609
Grand Total	0	2350	41	1	45	0	35	0	65	2245	0	4	0	0	0	0	4786
Apprch %	0.0	98.2	1.7	0.0	56.3	0.0	43.8	0.0	2.8	97.0	0.0	0.2	0.0	0.0	0.0	0.0	
Total %	0.0	49.1	0.9	0.0	0.9	0.0	0.7	0.0	1.4	46.9	0.0	0.1	0.0	0.0	0.0	0.0	

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Rochester, NY 14623

File Name : Route75.Columbia.PM
Site Code : 02607711
Start Date : 9/7/2007
Page No : 2

	Route 75 Southbound					Columbia Street Westbound					Route 75 Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 03:45 PM to 05:30 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	0	1256	21	0	1277	24	0	21	0	45	38	1185	0	1	1224	0	0	0	0	0	2546
Percent	0.0	98.4	1.6	0.0		53.3	0.0	46.7	0.0		3.1	96.8	0.0	0.1		0.0	0.0	0.0	0.0		
05:00 Volume	0	322	6	0	328	4	0	4	0	8	10	314	0	0	324	0	0	0	0	0	660
Peak Factor																					0.964
High Int.	04:30 PM					04:45 PM					05:00 PM					3:30:00 PM					
Volume	0	348	7	0	355	6	0	10	0	16	10	314	0	0	324						
Peak Factor					0.69					0.70					0.94						
					9					3					4						



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File Name : Route75.Columbia.SAT
Site Code : 02607712
Start Date : 9/8/2007
Page No : 1

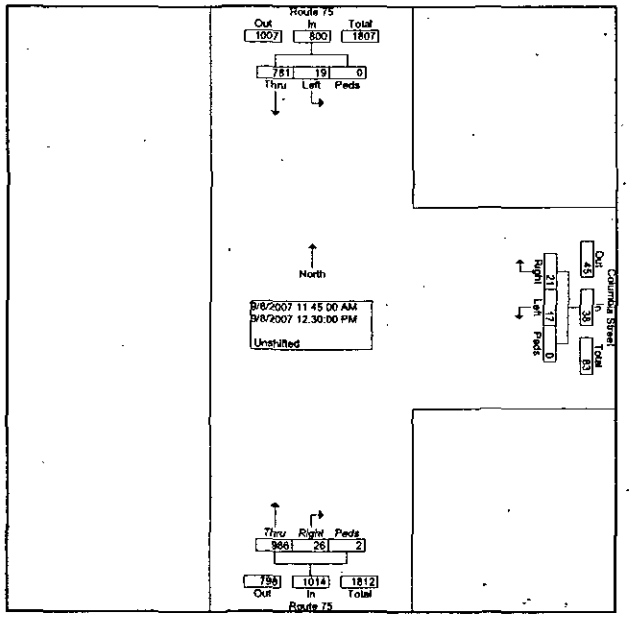
Groups Printed- Unshifted

	Route 75 Southbound				Columbia Street Westbound				Route 75 Northbound				Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
11:30 AM	0	219	4	0	6	0	3	0	11	216	0	2	0	0	0	0	461
11:45 AM	0	208	1	0	4	0	6	0	9	267	0	1	0	0	0	0	496
Total	0	427	5	0	10	0	9	0	20	483	0	3	0	0	0	0	957
12:00 PM	0	184	7	0	7	0	1	0	2	245	0	0	0	0	0	0	446
12:15 PM	0	175	7	0	5	0	5	0	10	234	0	1	0	0	0	0	437
12:30 PM	0	214	4	0	5	0	5	0	5	240	0	0	0	0	0	0	473
12:45 PM	0	182	7	0	7	0	10	0	17	192	0	0	0	0	0	0	415
Total	0	755	25	0	24	0	21	0	34	911	0	1	0	0	0	0	1771
01:00 PM	0	165	9	1	18	0	6	0	6	207	0	4	0	0	0	0	416
01:15 PM	1	195	8	0	8	0	9	0	11	186	0	1	0	0	0	0	419
Grand Total	1	1542	47	1	60	0	45	0	71	1787	0	9	0	0	0	0	3563
Apprch %	0.1	96.9	3.0	0.1	57.1	0.0	42.9	0.0	3.8	95.7	0.0	0.5	0.0	0.0	0.0	0.0	
Total %	0.0	43.3	1.3	0.0	1.7	0.0	1.3	0.0	2.0	50.2	0.0	0.3	0.0	0.0	0.0	0.0	

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Rochester, NY 14623

File Name : Route75.Columbia.SAT
Site Code : 02607712
Start Date : 9/8/2007
Page No : 2

	Route 75 Southbound					Columbia Street Westbound					Route 75 Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Intersection	11:45 AM																				
Volume	0	781	19	0	800	21	0	17	0	38	26	986	0	2	1014	0	0	0	0	0	1852
Percent	0.0	97.6	2.4	0.0		55.3	0.0	44.7	0.0		2.6	97.2	0.0	0.2		0.0	0.0	0.0	0.0		
11:45 Volume	0	208	1	0	209	4	0	6	0	10	9	267	0	1	277	0	0	0	0	0	496
Peak Factor																					0.933
High Int.	12:30 PM					11:45 AM					11:45 AM					11:15:00 AM					
Volume	0	214	4	0	218	4	0	6	0	10	9	267	0	1	277						
Peak Factor					0.91					0.95					0.91						
					7					0					5						



A2

Miscellaneous Traffic Data and Calculations

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Proposed Camp Road Retail, Town of Hamburg

Documentation of Ambient Traffic Volume Growth

Roadway	Segment ends at	1991	1992	1993	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Annual Growth
NYS Route 75	CR 134 Legion Drive					15,100			17,000			19,300				4.17%
NYS Route 75	ACC Rt 901 NYS TWY		12,500	14,600		15,100					15,200			26,800		6.56%
NYS Route 75	Rt. 20 Southwestern Blvd.		22,200			18,900			25,100		23,300				25,848	1.18%
NYS Route 75	Rt. 5 Athol Spring End 75		19,700		15,500	19,600						21,400				0.83%
NYS Route 20	CR 122 Amsdell Road	12,200			13,500						10,600			13,000		0.49%
NYS Route 20	Rt. 75 Acc Rt. 90 I				19,800	20,300	21,300	20,300	20,900			23,300			22,808	1.42%
NYS Route 20	Rt. 62 SO Park Ave		17,400				19,900	20,400			21,200		24,800			3.27%
															Average	1.50%

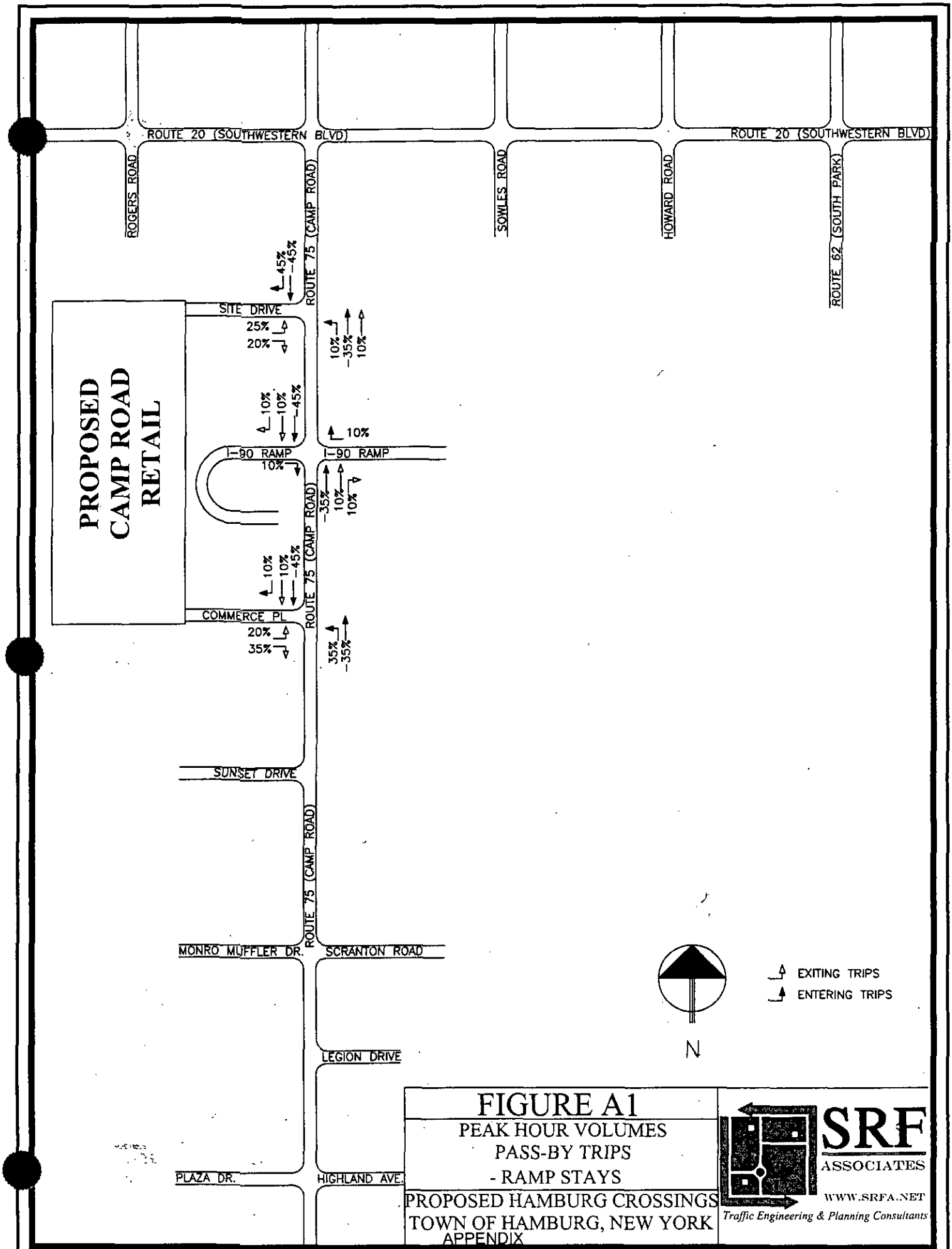


FIGURE A1

PEAK HOUR VOLUMES
PASS-BY TRIPS
- RAMP STAYS

PROPOSED HAMBURG CROSSINGS
TOWN OF HAMBURG, NEW YORK

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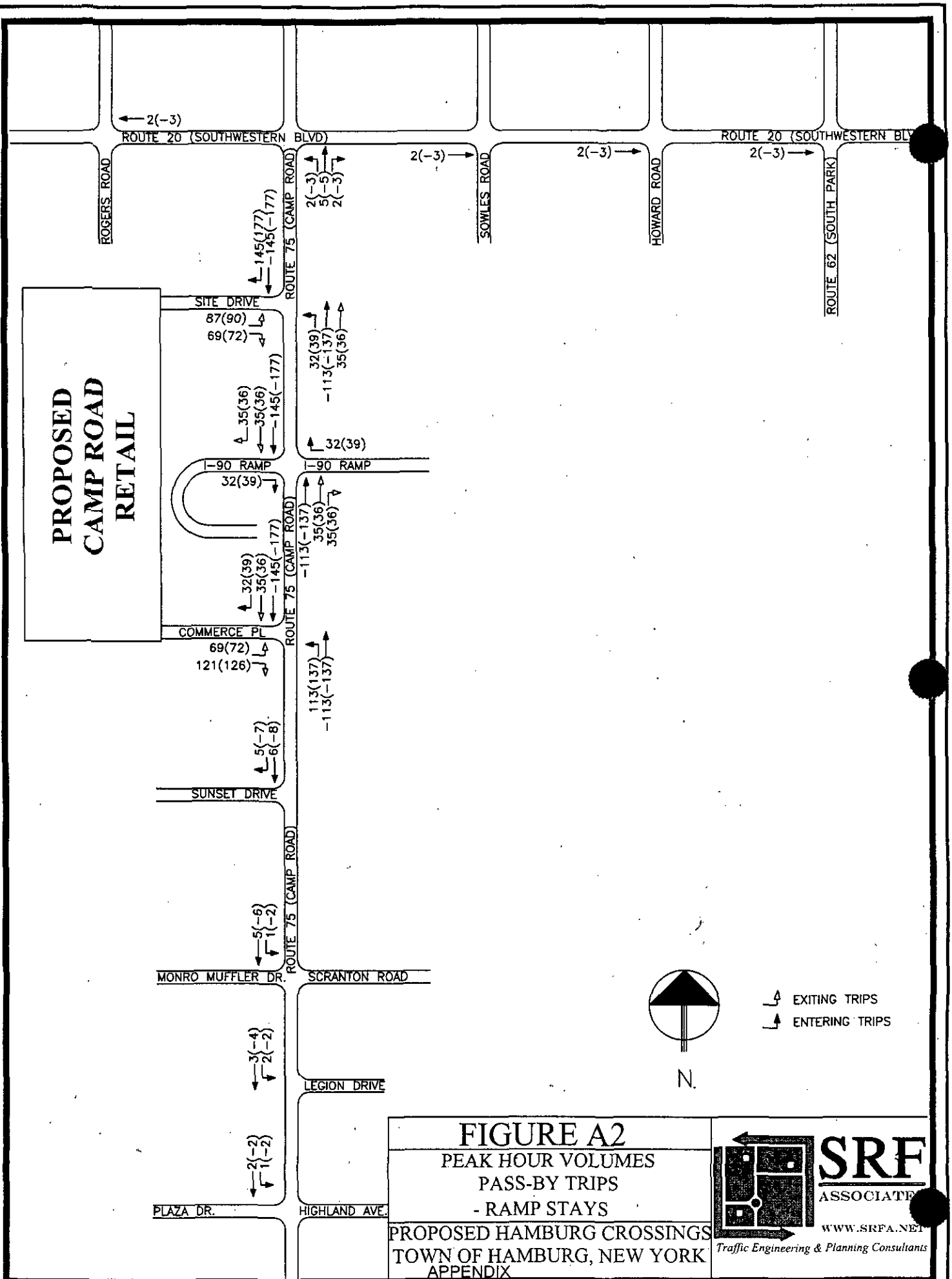


FIGURE A2

PEAK HOUR VOLUMES
PASS-BY TRIPS
- RAMP STAYS

PROPOSED HAMBURG CROSSINGS
TOWN OF HAMBURG, NEW YORK

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Summary of Trip Generation Calculation
For 115 Rooms of Hotel
May 23, 2007

	Average Rate	Standard Deviation	Adjustment Factor	Driveway Volume
Avg. Weekday 2-Way Volume	8.17	3.38	1.00	940
7-9 AM Peak Hour Enter	0.34	0.00	1.00	39
7-9 AM Peak Hour Exit	0.22	0.00	1.00	25
7-9 AM Peak Hour Total	0.56	0.78	1.00	64
4-6 PM Peak Hour Enter	0.31	0.00	1.00	36
4-6 PM Peak Hour Exit	0.28	0.00	1.00	32
4-6 PM Peak Hour Total	0.59	0.80	1.00	68
Saturday 2-Way Volume	8.19	3.13	1.00	942
Saturday Peak Hour Enter	0.40	0.00	1.00	46
Saturday Peak Hour Exit	0.32	0.00	1.00	37
Saturday Peak Hour Total	0.72	0.87	1.00	83

Note: A zero indicates no data available.
Source: Institute of Transportation Engineers
Trip Generation, 7th Edition, 2003.

TRIP GENERATION BY MICROTRANS

Summary of Trip Generation Calculation
For 652.813 T.G.L.A. of Shopping Center
May 23, 2007

	Average Rate	Standard Deviation	Adjustment Factor	Driveway Volume
Avg. Weekday 2-Way Volume	35.22	0.00	1.00	22991
7-9 AM Peak Hour Enter	0.45	0.00	1.00	294
7-9 AM Peak Hour Exit	0.29	0.00	1.00	188
7-9 AM Peak Hour Total	0.74	0.00	1.00	482
4-6 PM Peak Hour Enter	1.59	0.00	1.00	1037
4-6 PM Peak Hour Exit	1.72	0.00	1.00	1123
4-6 PM Peak Hour Total	3.31	0.00	1.00	2160
Saturday 2-Way Volume	46.15	0.00	1.00	30128
Saturday Peak Hour Enter	2.33	0.00	1.00	1524
Saturday Peak Hour Exit	2.15	0.00	1.00	1407
Saturday Peak Hour Total	4.49	0.00	1.00	2930

Note: A zero indicates no data available.
The above rates were calculated from these equations:

24-Hr. 2-Way Volume:	LN(T) = .65LN(X) + 5.83, R^2 = 0.78
7-9 AM Peak Hr. Total:	LN(T) = .6LN(X) + 2.29
	R^2 = 0.52 , 0.61 Enter, 0.39 Exit
4-6 PM Peak Hr. Total:	LN(T) = .66LN(X) + 3.4
	R^2 = 0.81 , 0.48 Enter, 0.52 Exit
AM Gen Pk Hr. Total:	0
	R^2 = 0 , 0 Enter, 0 Exit
PM Gen Pk Hr. Total:	0
	R^2 = 0 , 0 Enter, 0 Exit
Sat. 2-Way Volume:	LN(T) = .63LN(X) + 6.23, R^2 = 0.82
Sat. Pk Hr. Total:	LN(T) = .65LN(X) + 3.77
	R^2 = 0.84 , 0.52 Enter, 0.48 Exit
Sun. 2-Way Volume:	T = 15.63(X) + 4214.46, R^2 = 0.52
Sun. Pk Hr. Total:	0
	R^2 = 0 , 0 Enter, 0 Exit

Source: Institute of Transportation Engineers
Trip Generation, 7th Edition, 2003.

TRIP GENERATION BY MICROTRANS

PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
PM PEAK

Total Trips	1073	1155
Pass BY	30%	30%
Pass BY Trips	322	347

Num of yrs: 5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision		Woodstream Subdivision		Walmart Hamburg		Total Trips	Bkgd Volume	Pass-By Trips					Proposed Camp Road Retail - Opt A				Total Site Trips	Full Build Volumes
												Enter Dist. %	Exit Dist. %	Trips IN 322	Trips OUT 347	Total Pass-By	Enter Dist. %	Exit Dist. %	Trips IN 751	Trips OUT 809		
1	Route 75(Lake Street)/Highland Avenue																					
	SR	37	40								40											40
	ST	878	946								946					2		10%		81	83	1029
	SL	68	73								73					1		5%		40	41	114
	WR	44	47								47						5%		38		38	85
	WT	11	12								12											12
	WL	36	39								39											39
	NR	24	26								26											26
	NT	554	597								597						10%		75		75	672
	NL	6	6								6											6
	ER	2	2								2											2
	ET	6	6								6											6
	EL	24	26								26											26
2	Route 75(Camp Road)/Legion Drive																					
	SR																					
	ST	885	953								953					3		15%		121	124	1077
	SL	275	296						8	8	304					2		10%		81	83	387
	WR	278	299					8		8	307						10%		75		75	382
	WT																					
	WL	231	249								249											249
	NR	139	150								150											150
	NT	547	589								589						15%		113		113	702
	NL																					
	ER																					
	ET																					
	EL																					

PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
PM PEAK

Total Trips	1073	1155
Pass BY	30%	30%
Pass BY Trips	322	347

Num of yrs: 5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision	Woodstream Subdivision	Walmart Hamburg	Total Trips	Bkgd Volume	Pass-By Trips: Enter Dist. %	Exit Dist. %	Trips IN 322	Trips OUT 347	Total Pass-By	Proposed Camp Road Retail - Opt A: Enter Dist. %	Exit Dist. %	Trips IN 751	Trips OUT 809	Total Site Trips	Full Build Volumes
3	**Route 75(Camp Road)/Elmview Avenue**																		
	SR	16	17					17											17
	ST	1040	1120				8	1128					5		25%		202	207	1335
	SL																		
	WR																		
	WT																		
	WL																		
	NR																		
	NT	790	851			8	8	859						25%		188		188	1047
	NL	45	48					48											48
	ER	56	60					60											60
	ET																		
	EL	8	9					9											9
4	**Route 75(Camp Road)/Scranton Road**																		
	SR	0																	
	ST	880	948				8	956					5		25%		202	207	1163
	SL	156	168				8	176					1		5%		40	41	217
	WR	145	156			8	8	164						5%		38		38	202
	WT	0																	
	WL	120	129					129											129
	NR	106	114					114											114
	NT	616	664			8	8	672						25%		188		188	860
	NL	0																	
	ER	0																	
	ET	0																	
	EL	0																	
5	**Route 75(Camp Road)/Sunset Ct./Deacon St.**																		
	SR	3	3					3											3
	ST	1017	1096				16	1112					6		30%		243	249	1361
	SL	2	2					2											2
	WR	18	19					19											19
	WT																		
	WL	9	10					10											10
	NR	9	10					10											10
	NT	776	836			16	16	852						30%		225		225	1077
	NL	10	11					11											11
	ER	6	6					6											6
	ET																		
	EL	3	3					3											3

SRF ASSOCIATES

PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
PM PEAK

Total Trips	1073	1155
Pass BY	30%	30%
Pass BY Trips	322	347

Num of yrs
5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision	Woodstream Subdivision	Walmart Hamburg		Total Trips	Bkgd Volume	Pass-By Trips Enter Dist. %	Exit Dist. %	Trips IN 322	Trips OUT 347	Total Pass-By	Proposed Camp Road Retail - Opt A Enter Dist. %	Exit Dist. %	Trips IN 751	Trips OUT 809	Total Site Trips	Full Build Volumes
6	Route 75(Camp Road)/Sunset Drive																			
	SR	312	336					16	16	352					5		10%		81	86	438
	ST	930	1002					16	16	1018					6		30%		243	249	1267
	SL																				
	WR																				
	WT																				
	WL																				
	NR																				
	NT	585	630				16		16	646					30%		225		225	871
	NL	107	115							115										115
	ER	42	45							45										45
	ET																			
	EL	209	225				16		16	241					10%		75		75	316
7	Route 75(Camp Road)/Commerce Place																			
	SR	16	17							17	10%		32		4%		30		62	79
	ST	1355	1460				32		32	1492	-45%	10%	-145	35		5%		40	-70	1422
	SL																			
	WR																			
	WT																			
	WL																			
	NR																			
	NT	695	749				32		32	781	-35%		-113		5%		38		-75	706
	NL	6	6							6	35%		113		35%		263		376	382
	ER	13	14							14		35%		121		35%		283	404	418
	ET																			
	EL	8	9							9		20%		69		4%		32	102	111
8	Route 75(Camp Road)/Thruway Drive																			
	SR	267	288				42		42	330		10%		35		13%		105	140	470
	ST	979	1055				32		32	1087	-45%	10%	-145	35	2%	5%	15	40	-55	1032
	SL																			
	WR	632	681			41			41	722	10%		32		13%		98		130	852
	WT																			
	WL																			
	NR	227	245							245		10%		35		2%		16	51	296
	NT	476	513			32			32	545	-35%	10%	-113	35	5%	2%	38	16	-24	521
	NL																			
	ER	392	422							422	10%		32		2%		15		47	469
	ET																			
	EL																			

SRF

1/8/2008

PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
PM PEAK

Total Trips	1073	1155
Pass BY	30%	30%
Pass BY Trips	322	347

Num of yrs: 5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision	Woodstream Subdivision	Walmart Hamburg	Total Trips	Bkgd Volume	Pass-By Trips: Enter Dist. %	Exit Dist. %	Trips IN 322	Trips OUT 347	Total Pass-By	Proposed Camp Road Retail - Opt A: Enter Dist. %	Exit Dist. %	Trips IN 751	Trips OUT 809	Total Site Trips	Full Build Volumes
9	Route 75(Camp Road)/Proposed Site Drive																		
	SR								45%		145		145	43%		323		468	468
	ST	1246	1342				74	74	-45%		-145		-145	2%		15		-130	1286
	SL																		
	WR																		
	WT																		
	WL																		
	NR																		
	NT	1108	1194			73	73	1267	-35%	10%	-113	35	-78		2%		16	-62	1205
	NL								10%		32		32	18%		135		167	167
	ER									20%		69	69		18%		146	215	215
	ET																		
	EL									25%		87	87		43%		348	434	434
10	Route 75(Camp Road)/Dartmouth St																		
	SR																		
	ST	1261	1358				74	74						45%		338		338	1770
	SL	13	14																14
	WR	10	11																11
	WT																		
	WL	121	13					13											13
	NR	18	19					19											19
	NT	1192	1284			73	73	1357					9		45%		364	373	1730
	NL																		
	ER																		
	ET																		
	EL																		
11	Route 75(Camp Road)/Columbia St																		
	SR																		
	ST	1256	1353				74	74						45%		338		338	1765
	SL	21	23					23											23
	WR	24	26					26											26
	WT																		
	WL	21	23					23											23
	NR	38	41					41											41
	NT	1185	1277			73	73	1350					9		45%		364	373	1723
	NL																		
	ER																		
	ET																		
	EL																		

PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
PM PEAK

Total Trips	1073	1155
Pass BY	30%	30%
Pass BY Trips	322	347

Num of yrs
5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision		Woodstream Subdivision		Walmart Hamburg		Total Trips	Bkgd Volume	Pass-By Trips					Proposed Camp Road Retail - Opt A				Total Site Trips	Full Build Volumes
												Enter Dist. %	Exit Dist. %	Trips IN 322	Trips OUT 347	Total Pass-By	Enter Dist. %	Exit Dist. %	Trips IN 751	Trips OUT 809		
12	Route 75(Camp Road)/Route 20(Southwestern Blvd)																					
	SR	262	282	24		12		73		109	391											391
	ST	750	808								808						20%		150		150	958
	SL	21	23								23											23
	WR	14	15								15											15
	WT	737	794	18		9		55		82	876											876
	WL	296	319								319						15%		113		113	432
	NR	276	297								297					2		15%		121	123	420
	NT	436	470								470					5		20%		162	167	637
	NL	362	390	24		12		73		109	499					2		10%		81	83	582
	ER	200	215		14		7		74	95	310						10%		75		75	385
	ET	370	399		10		5		55	70	469											469
	EL	134	144		14		7		74	95	239											239
13	Route 20(Southwestern Blvd)/Rogers Road																					
	SR	31	33				8			8	41											41
	ST	76	82				3		11	14	96											96
	SL	110	119				19			19	138						2%		15		15	153
	WR	176	190			32				32	222							2%		16	16	238
	WT	877	945	66					76	142	1087					2		8%		65	67	1154
	WL	21	23						26	26	49											49
	NR	12	13					26		26	39											39
	NT	85	92			6		11		17	109											109
	NL	21	23								23											23
	ER	18	19								19											19
	ET	521	561		38			73		111	672						8%		60		60	732
	EL	16	17			13				13	30											30
14	Route 20(Southwestern Blvd)/Sowles Road																					
	SR	7	8								8											8
	ST	149	161								161											161
	SL	53	57								57											57
	WR	75	81								81											81
	WT	698	752					44		44	796						12%		90		90	886
	WL	18	19								19											19
	NR	44	47								47											47
	NT	83	89								89											89
	NL	126	136					11		11	147						3%		23		23	170
	ER	123	133						11	11	144							3%		24	24	168
	ET	568	612						44	44	656					2		12%		97	99	755
	EL	11	12								12											12

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PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
PM PEAK

Total Trips	1073	1155
Pass BY	30%	30%
Pass BY Trips	322	347

Num of yrs
5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision		Woodstream Subdivision		Walmart Hamburg		Total Trips	Bkgd Volume	Pass-By Trips Enter Dist. %	Exit Dist. %	Trips IN 322	Trips OUT 347	Total Pass-By	Proposed Camp Road Retail - Opt A Enter Dist. %	Exit Dist. %	Trips IN 751	Trips OUT 809	Total Site Trips	Full Build Volumes
15	Route 20(Southwestern Blvd)/Howard Road																					
	SR	49	53					5		5	58						2%		15		15	73
	ST	0																				
	SL	98	106								106											106
	WR	122	131								131											131
	WT	708	763					39		39	802						10%		75		75	877
	WL	2	2								2											2
	NR	0																				
	NT	0																				
	NL	1	1								1											1
	ER	0																				
	ET	612	659						38	38	697					2		10%		81	83	780
	EL	49	53						6	6	59							2%		16	16	75
16	Route 20(Southwestern Blvd)/Route 65 (South Park)																					
	SR	204	220					4		4	224						3%		23		23	247
	ST	559	602								602											602
	SL	42	45								45											45
	WR	40	43								43											43
	WT	576	621					31		31	652						6%		45		45	697
	WL	129	139								139											139
	NR	127	137								137											137
	NT	415	447								447											447
	NL	75	81					4		4	85						1%		8		8	93
	ER	50	54						4	4	58							1%		8	8	66
	ET	541	583						30	30	613					2		6%		49	51	664
	EL	178	192						4	4	196					1		3%		24	24	220

PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
SAT PEAK

Total Trips	1570	1444
Pass BY	25%	25%
Pass BY Trips	393	361

Num of yrs
5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision		Woodstream Subdivision		Walmart Hamburg		Total Trips	Bkgd Volume	Pass-By Trips					Proposed Camp Road Retail - Opt A				Total Site Trips	Full Build Volumes
												Enter Dist. %	Exit Dist. %	Trips IN 393	Trips OUT 361	Total Pass-By	Enter Dist. %	Exit Dist. %	Trips IN 1178	Trips OUT 1083		
1	Route 75(Lake Street)/Highland Avenue																					
	SR	17	18								18											18
	ST	509	548								548					-2		10%		108	106	654
	SL	49	53								53					-2		5%		54	52	105
	WR	77	83								83						5%		59		59	142
	WT	4	4								4											4
	WL	29	31								31											31
	NR	32	34								34											34
	NT	648	698								698						10%		118		118	816
	NL	3	3								3											3
	ER	2	2								2											2
	ET	2	2								2											2
	EL	10	11								11											11
2	Route 75(Camp Road)/Legion Drive																					
	SR																					
	ST	460	496								496					-4		15%		162	158	654
	SL	220	237						11	11	248					-2		10%		108	106	354
	WR	250	269					11		11	280						10%		118		118	398
	WT																					
	WL	173	186								186											186
	NR	176	190								190											190
	NT	502	541								541						15%		177		177	718
	NL																					
	ER																					
	ET																					
	EL																					

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PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
SAT PEAK

Total Trips	1570	1444
Pass BY	25%	25%
Pass BY Trips	393	361

Num of yrs
5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision		Woodstream Subdivision		Walmart Hamburg		Total Trips	Bkgd Volume	Pass-By Trips					Proposed Camp Road Retail - Opt A				Total Site Trips	Full Build Volumes
												Enter Dist. %	Exit Dist. %	Trips IN 393	Trips OUT 361	Total Pass-By	Enter Dist. %	Exit Dist. %	Trips IN 1178	Trips OUT 1083		
3	Route 75(Camp Road)/Elmview Avenue																					
	SR	30	32								32											32
	ST	615	663						11	11	674					-6		25%		271	265	939
	SL																					
	WR																					
	WT																					
	WL																					
	NR																					
	NT	739	796					11		11	807						25%		294		294	1101
	NL	42	45								45											45
	ER	40	43								43											43
	ET																					
	EL	10	11								11											11
4	Route 75(Camp Road)/Scranton Road																					
	SR	1	1								1											1
	ST	520	560						11	11	571					-6		25%		271	265	836
	SL	107	115						11	11	126					-2		5%		54	52	178
	WR	106	114					11		11	125						5%		59		59	184
	WT	1	1								1											1
	WL	100	108								108											108
	NR	75	81								81											81
	NT	633	682					11		11	693						25%		294		294	987
	NL	1	1								1											1
	ER	2	2								2											2
	ET	0																				
	EL	1	1								1											1
5	Route 75(Camp Road)/Sunset Ct./Deacon St.																					
	SR																					
	ST	610	657						22	22	679					-8		30%		325	317	996
	SL	6	6								6											6
	WR	16	17								17											17
	WT																					
	WL	19	20								20											20
	NR	3	3								3											3
	NT	739	796					22		22	818						30%		353		353	1171
	NL	13	14								14											14
	ER	16	17								17											17
	ET																					
	EL	3	3								3											3

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PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
SAT PEAK

Total Trips	1570	1444
Pass BY	25%	25%
Pass BY Trips	393	361

Num of yrs
5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision		Woodstream Subdivision		Walmart Hamburg		Total Trips	Bkgd Volume	Pass-By Trips					Proposed Camp Road Retail - Opt A				Total Site Trips	Full Build Volumes
												Enter Dist. %	Exit Dist. %	Trips IN 393	Trips OUT 361	Total Pass-By	Enter Dist. %	Exit Dist. %	Trips IN 1178	Trips OUT 1083		
6	Route 75(Camp Road)/Sunset Drive																					
	SR	121	130						22	22	152					-7		10%		108	101	253
	ST	550	593						22	22	615					-8		30%		325	317	932
	SL																					
	WR																					
	WT																					
	WL																					
	NR																					
	NT	625	673					22		22	695						30%		353		353	1048
	NL	74	80								80											80
	ER	63	68								68											68
	ET																					
	EL	172	185					22		22	207						10%		118		118	325
7	Route 75(Camp Road)/Commerce Place																					
	SR	15	16								16	10%		39		39	4%		47		86	102
	ST	713	768						44	44	812	-45%	10%	-177	36	-141		5%		54	-86	726
	SL																					
	WR																					
	WT																					
	WL																					
	NR																					
	NT	648	698					44		44	742	-35%		-137		-137	5%		59		-79	664
	NL	5	5								5	35%		137		137	35%		412		550	555
	ER	17	18								18		35%		126	126		35%		379	505	523
	ET																					
	EL	15	16								16		20%		72	72		4%		43	116	132
8	Route 75(Camp Road)/Thruway Drive																					
	SR	243	262						65	65	327		10%		36	36		13%		141	177	504
	ST	572	616						44	44	660	-45%	10%	-177	36	-141	2%	5%	24	54	-63	597
	SL																					
	WR	467	503					71		71	574	10%		39		39	13%		153		192	766
	WT																					
	WL																					
	NR	175	189								189		10%		36	36		2%		22	58	247
	NT	488	526					44		44	570	-35%	10%	-137	36	-101	5%	2%	59	22	-21	549
	NL																					
	ER	156	168								168	10%		39		39	2%		24		63	231
	ET																					
	EL																					

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PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
SAT PEAK

Total Trips	*1570*	*1444*
Pass BY	25%	25%
Pass BY Trips	393	361

Num of yrs: 5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision		Woodstream Subdivision		Walmart Hamburg		Total Trips	Bkgd Volume	Pass-By Trips					Proposed Camp Road Retail - Opt A				Total Site Trips	Full Build Volumes
												Enter Dist. %	Exit Dist. %	Trips IN 393	Trips OUT 361	Total Pass-By	Enter Dist. %	Exit Dist. %	Trips IN 1178	Trips OUT 1083		
9	Route 75(Camp Road)/Proposed Site Drive																					
	SR											45%		177		177	43%		506		683	683
	ST	815	878						109	109	987	-45%		-177		-177	2%		24		-153	834
	SL																					
	WR																					
	WT																					
	WL																					
	NR																					
	NT	955	1029					115		115	1144	-35%	10%	-137	36	-101		2%		22	-80	1064
	NL											10%		39		39	18%		212		251	251
	ER												20%		72	72		18%		195	267	267
	ET																					
	EL												25%		90	90		43%		466	556	556
10	Route 75(Camp Road)/Dartmouth St																					
	SR																					
	ST	820	883						109	109	992						45%		530		530	1522
	SL	9	10								10											10
	WR	4	4								4											4
	WT																					
	WL	9	10								10											10
	NR	37	40								40											40
	NT	985	1061					115		115	1176					-11		45%		487	476	1652
	NL																					
	ER																					
	ET																					
	EL																					
11	Route 75(Camp Road)/Columbia St																					
	SR																					
	ST	781	841						109	109	950						45%		530		530	1480
	SL	19	20								20											20
	WR	21	23								23											23
	WT																					
	WL	17	18								18											18
	NR	26	28								28											28
	NT	986	1062					115		115	1177					-11		45%		487	476	1653
	NL																					
	ER																					
	ET																					
	EL																					

PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
SAT PEAK

Total Trips	1570	1444
Pass BY	25%	25%
Pass BY Trips	393	361

Num of yrs
5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision		Woodstream Subdivision		Walmart Hamburg		Total Trips	Bkgd Volume	Pass-By Trips					Proposed Camp Road Retail - Opt A				Total Site Trips	Full Build Volumes
												Enter Dist. %	Exit Dist. %	Trips IN 393	Trips OUT 361	Total Pass-By	Enter Dist. %	Exit Dist. %	Trips IN 1178	Trips OUT 1083		
12	Route 75(Camp Road)/Route 20(Southwestern Blvd)																					
	SR	104	112	22		9		115		146	258											258
	ST	281	303								303						20%		236		236	539
	SL	32	34								34											34
	WR	33	36								36											36
	WT	503	542	17		7		86		110	652											652
	WL	271	292								292						15%		177		177	469
	NR	307	331								331					-3		15%		162	159	490
	NT	363	391								391					-5		20%		217	212	603
	NL	240	259	22		9		115		146	405					-3		10%		108	105	510
	ER	194	209		19		8		109	136	345						10%		118		118	463
	ET	435	469		14		6		78	98	567											567
	EL	111	120		19		8		109	136	256											256
13	Route 20(Southwestern Blvd)/Rogers Road																					
	SR	27	29				9			9	38											38
	ST	82	88				4		16	20	108											108
	SL	118	127				22			22	149						2%		24		24	173
	WR	123	133			26				26	159							2%		22	22	181
	WT	517	557	61					105	166	723					-3		8%		87	84	807
	WL	13	14						38	38	52											52
	NR	14	15					40		40	55											55
	NT	57	61			5		17		22	83											83
	NL	15	16								16											16
	ER	14	15								15											15
	ET	519	559		52			115		167	726						8%		94		94	820
	EL	30	32			11				11	43											43
14	Route 20(Southwestern Blvd)/Sowles Road																					
	SR	23	25								25											25
	ST	62	67								67											67
	SL	31	33								33											33
	WR	45	48								48											48
	WT	520	560					68		68	628						12%		141		141	769
	WL	12	13								13											13
	NR	28	30								30											30
	NT	64	69								69											69
	NL	117	126					18		18	144						3%		35		35	179
	ER	123	133						16	16	149							3%		32	32	181
	ET	583	628						62	62	690					-3		12%		130	127	817
	EL	20	22								22											22

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PROPOSED CAMP ROAD RETAIL
TOWN OF HAMBURG, ERIE COUNTY, NY
SAT PEAK

Total Trips	1570	1444
Pass BY	25%	25%
Pass BY Trips	393	361

Num of yrs
5

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Bkgd Volume 1.5%	Wellington Woods & Treehaven Subdivision		Woodstream Subdivision		Walmart Hamburg		Total Trips	Bkgd Volume	Pass-By Trips					Proposed Camp Road Retail - Opt A				Total Site Trips	Full Build Volumes
												Enter Dist. %	Exit Dist. %	Trips IN 393	Trips OUT 361	Total Pass-By	Enter Dist. %	Exit Dist. %	Trips IN 1178	Trips OUT 1083		
15	Route 20(Southwestern Blvd)/Howard Road																					
	SR	36	39					7		7	46						2%		24		24	70
	ST	0																				
	SL	97	104								104											104
	WR	91	98								98											98
	WT	599	645					61		61	706						10%		118		118	824
	WL																					
	NR																					
	NT																					
	NL	1	1								1											1
	ER	1	1								1											1
	ET	682	735						54	54	789					-3		10%		108	105	894
	EL	38	41						8	8	49							2%		22	22	71
16	Route 20(Southwestern Blvd)/Route 65 (South Park)																					
	SR	147	158					6		6	164						3%		35		35	199
	ST	371	400								400											400
	SL	50	54								54											54
	WR	38	41								41											41
	WT	530	571					49		49	620						6%		71		71	691
	WL	99	107								107											107
	NR	141	152								152											152
	NT	390	420								420											420
	NL	54	58					6		6	64						1%		12		12	76
	ER	81	87						6	6	93							1%		11	11	104
	ET	624	672						42	42	714					-3		6%		65	62	776
	EL	128	138						6	6	144							3%		32	32	176

Traffic Signal Warrant Analysis

NYS Route 75 - Proposed Site Drive

Town of Hamburg, Erie County

Hour			Existing Fluctuation in Artery Volumes per NYSDOT count on Route 75 NB	per NYSDOT count on Route 75 SB	per NYSDOT count on Route 75 Two-Way	Hourly Fluctuation Two-Way	**Full Development Artery Volume on Route 75 at site drive Total**	Hourly Fluctuation of retail facility driveway traffic **Exiting**	**Total Hourly Volumes Exiting Proposed Retail Facility**
7:00 AM	to	8:00 AM	1061	655	1716	6.64%	**2134**		**0**
8:00 AM	to	9:00 AM	1035	677	1712	6.62%	**2129**		**0**
9:00 AM	to	10:00 AM	763	636	1399	5.41%	**1740**		**0**
10:00 AM	to	11:00 AM	723	650	1373	5.31%	**1708**	3.70%	**253**
11:00 AM	to	12:00 PM	799	710	1509	5.84%	**1877**	5.90%	**403**
12:00 PM	to	1:00 PM	847	747	1594	6.17%	**1982**	7.90%	**540**
1:00 PM	to	2:00 PM	840	745	1585	6.13%	**1971**	8.20%	**560**
2:00 PM	to	3:00 PM	900	799	1699	6.57%	**2113**	8.80%	**601**
3:00 PM	to	4:00 PM	964	894	1858	7.19%	**2311**	8.90%	**608**
4:00 PM	to	5:00 PM	1101	1012	2113	8.17%	**2628**	9.10%	**622**
5:00 PM	to	6:00 PM	1110	1057	2167	8.38%	**2695**	9.50%	**649**
6:00 PM	to	7:00 PM	949	842	1791	6.93%	**2227**	7.70%	**526**
7:00 PM	to	8:00 PM	696	608	1304	5.04%	**1622**	7.00%	**478**
8:00 PM	to	9:00 PM	512	415	927	3.59%	**1153**	7.70%	**526**
9:00 PM	to	10:00 PM	420	352	772	2.99%	**960**	9.10%	**622**
10:00 PM	to	11:00 PM	308	298	606	2.34%	**754**		**0**
					25,848		32,146		6,832

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Traffic Signal Warrant Analysis

NYS Route 75 - Proposed Site Drive

Town of Hamburg, Erie County

Hour			Existing Fluctuation in Artery Volumes per NYSDOT count on Route 75 NB	per NYSDOT count on Route 75 SB	per NYSDOT count on Route 75 Two-Way	Hourly Fluctuation Two-Way	**Full Development Artery Volume on Route 75 at commerce place** **Total**	Hourly Fluctuation of *retail facility* driveway traffic **Exiting**	**Total Hourly Volumes *Exiting Proposed Retail* Facility**
7:00 AM	to	8:00 AM	1061	655	1716	6.64%	**2050**		**0**
8:00 AM	to	9:00 AM	1035	677	1712	6.62%	**2045**		**0**
9:00 AM	to	10:00 AM	763	636	1399	5.41%	**1671**		**0**
10:00 AM	to	11:00 AM	723	650	1373	5.31%	**1640**	3.70%	**206**
11:00 AM	to	12:00 PM	799	710	1509	5.84%	**1803**	5.90%	**329**
12:00 PM	to	1:00 PM	847	747	1594	6.17%	**1904**	7.90%	**440**
1:00 PM	to	2:00 PM	840	745	1585	6.13%	**1894**	8.20%	**457**
2:00 PM	to	3:00 PM	900	799	1699	6.57%	**2030**	8.80%	**490**
3:00 PM	to	4:00 PM	964	894	1858	7.19%	**2220**	8.90%	**496**
4:00 PM	to	5:00 PM	1101	1012	2113	8.17%	**2524**	9.10%	**507**
5:00 PM	to	6:00 PM	1110	1057	2167	8.38%	**2589**	9.50%	**529**
6:00 PM	to	7:00 PM	949	842	1791	6.93%	**2140**	7.70%	**429**
7:00 PM	to	8:00 PM	696	608	1304	5.04%	**1558**	7.00%	**390**
8:00 PM	to	9:00 PM	512	415	927	3.59%	**1108**	7.70%	**429**
9:00 PM	to	10:00 PM	420	352	772	2.99%	**922**	9.10%	**507**
10:00 PM	to	11:00 PM	308	298	606	2.34%	**724**		**0**
					25,848		30,882		5,568

SRF ASSOCIATES
WWW.SRFA.NET
Traffic Engineering & Planning Consultants

Guideline for a major-road left-turn bay on a four lane undivided Road at an unsignalized intersection

INPUT

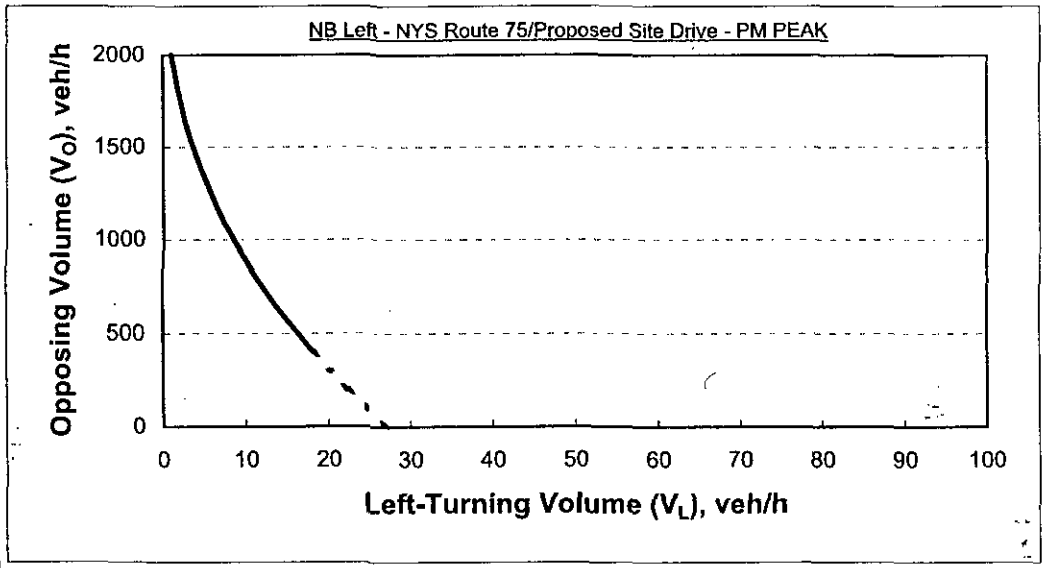
Variable	Value
Left-turning volume (V_L), veh/h:	167
Advancing volume (V_A), veh/h: (Left + Thru + Right)	1048
Opposing volume (V_O), veh/h: (Left + Thru + Right)	1647

OUTPUT

Variable	Message
Combined volume (V_A and V_O) check:	O.K.
Guidance for determining the need for a major-road left-turn bay:	
LEFT-TURN TREATMENT WARRANTED.	

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	4.0
Critical headway/Gap, s:	6.0



Note: When V_O < 400 veh/h (dashed line), a left-turn lane is not normally warranted unless the advancing volume (V_A) in the same direction as the left-turning traffic exceeds 400 veh/h (V_A > 400 veh/h).

Guideline for a major-road left-turn bay on a four lane undivided Road at an unsignalized intersection

INPUT

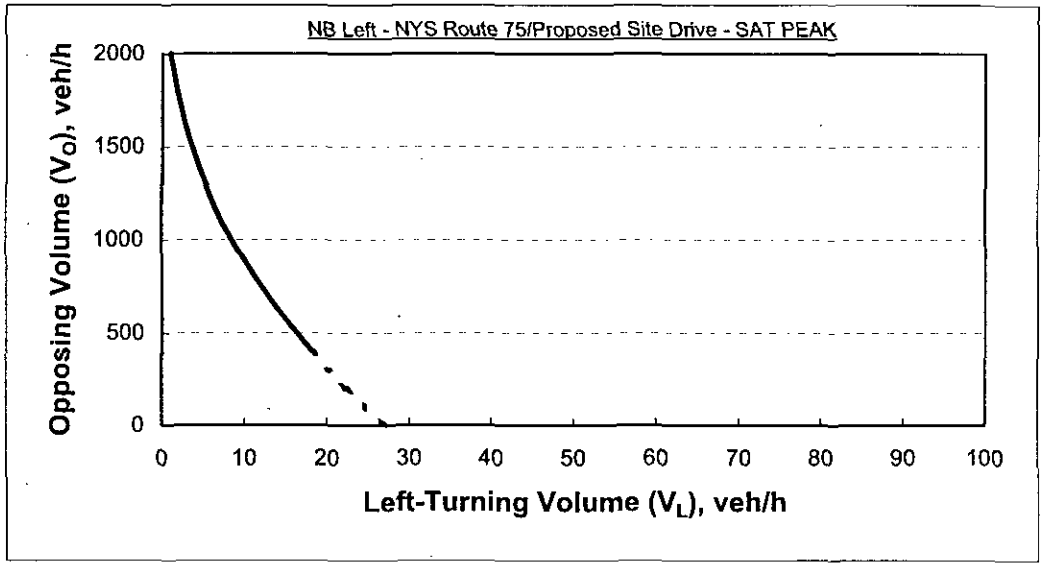
Variable	Value
Left-turning volume (V_L), veh/h:	251
Advancing volume (V_A), veh/h: (Left + Thru + Right)	992
Opposing volume (V_O), veh/h: (Left + Thru + Right)	1409

OUTPUT

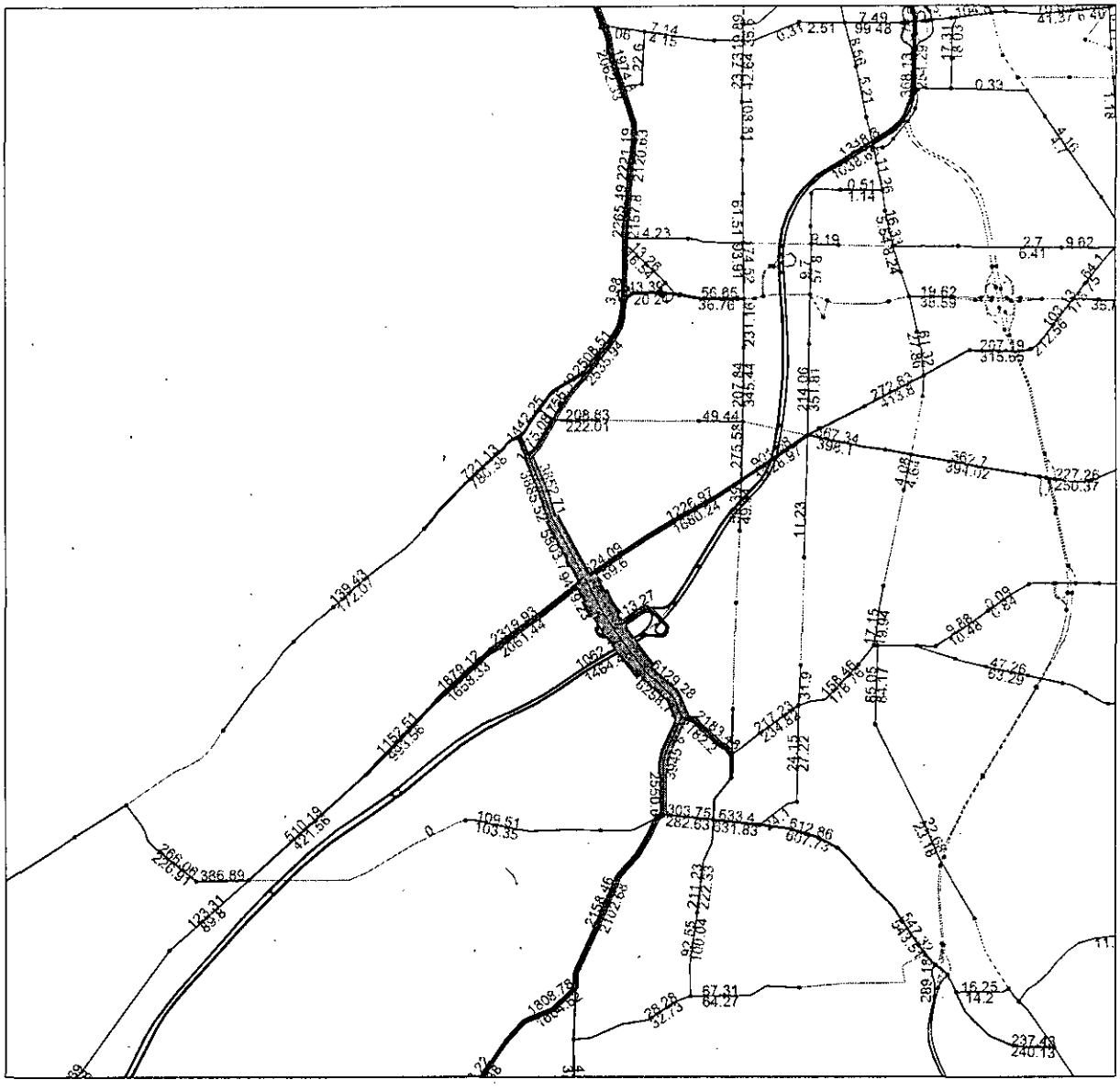
Variable	Message
Combined volume (V_A and V_O) check:	O.K.
Guidance for determining the need for a major-road left-turn bay:	
LEFT-TURN TREATMENT WARRANTED.	

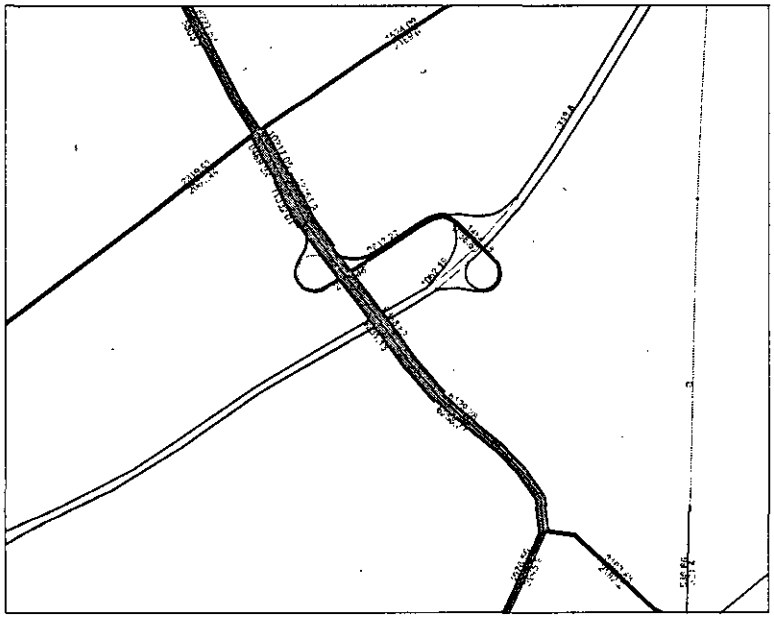
CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	4.0
Critical headway/Gap, s:-	6.0



Note: When V_O < 400 veh/h (dashed line), a left-turn lane is not normally warranted unless the advancing volume (V_A) in the same direction as the left-turning traffic exceeds 400 veh/h (V_A > 400 veh/h).





2005 Base Year
Camp Road Select Links

10000 5000 2500

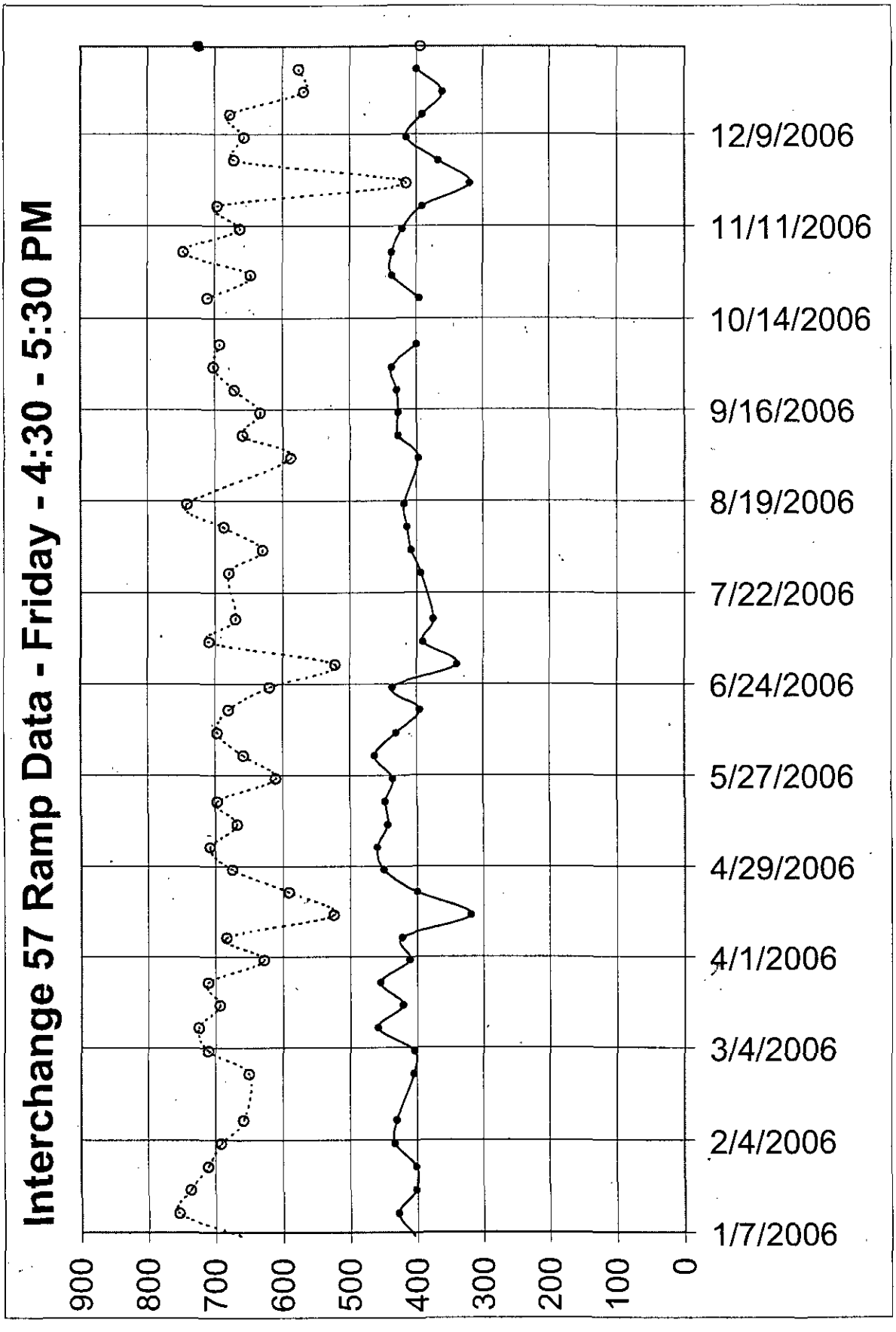
ADT

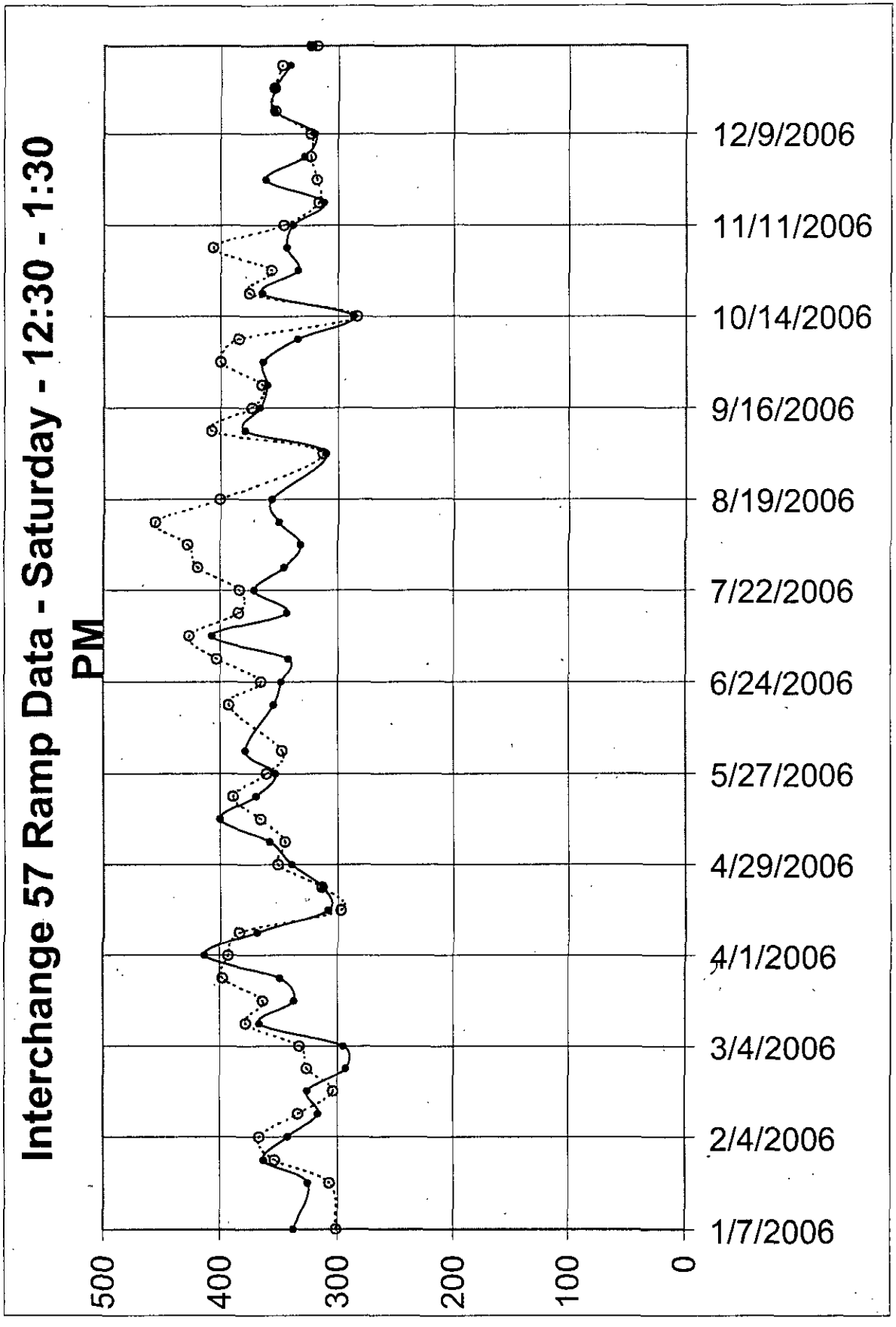
0 .5 1 1.5

Miles

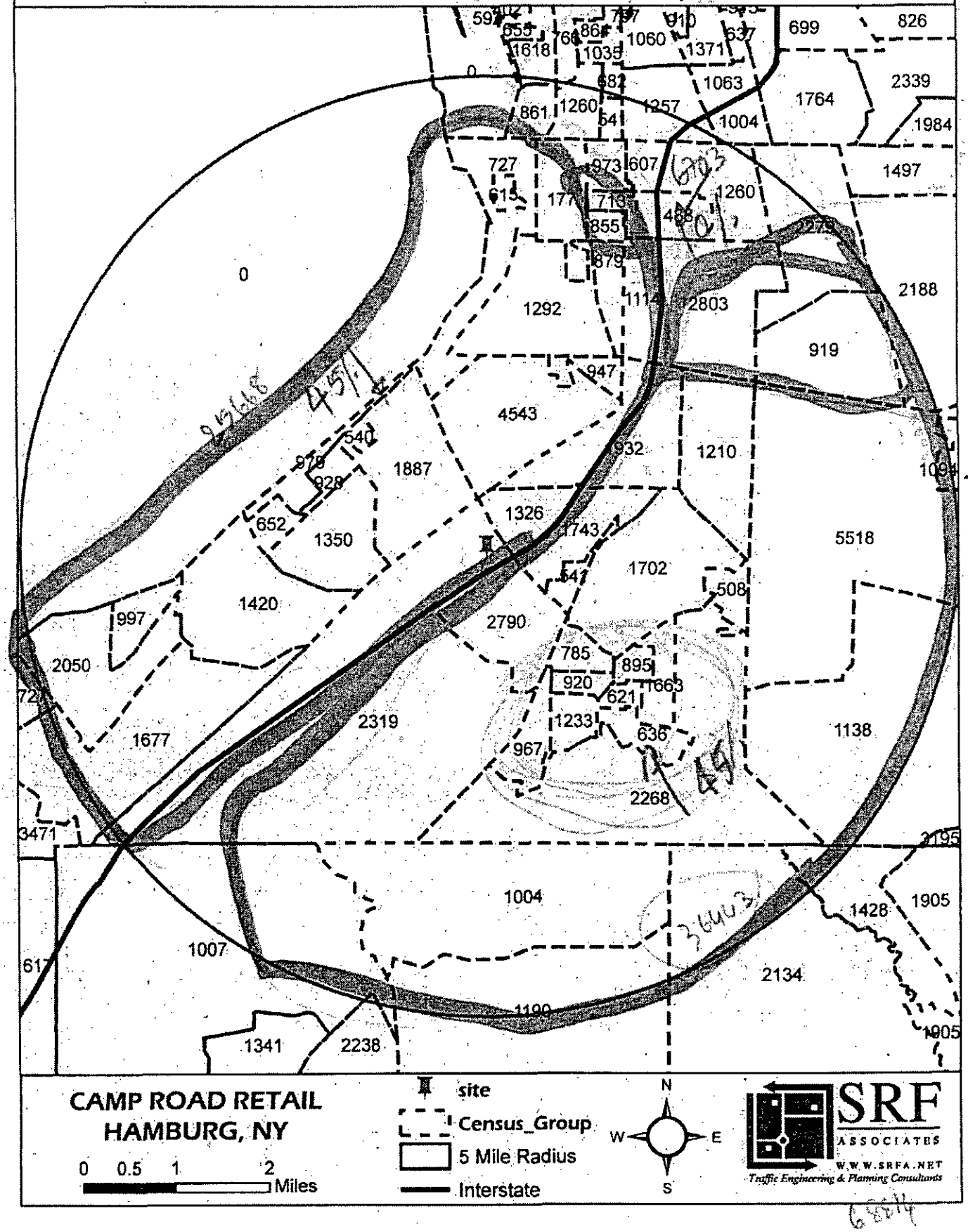
2005 Base Year
Camp Road Select Link Analysis

GBNRTC GREATER BUFFALO-NIAGARA REGIONAL TRANSPORTATION COUNCIL


Interchange 57 Ramp Data - Friday - 4:30 - 5:30 PM
12/9/2006
11/11/2006
10/14/2006
9/16/2006
8/19/2006
7/22/2006
6/24/2006
5/27/2006
4/29/2006
4/1/2006
3/4/2006
2/4/2006
1/7/2006
900
800
700
600
500
400
300
200
100
0


Interchange 57 Ramp Data - Saturday - 12:30 - 1:30 PM
12/9/2006
11/11/2006
10/14/2006
9/16/2006
8/19/2006
7/22/2006
6/24/2006
5/27/2006
4/29/2006
4/1/2006
3/4/2006
2/4/2006
1/7/2006
500
400
300
200
100
0

CENSUS INFORMATION



A3

Level of Service: Criteria and Definitions

Level of Service Criteria

Highway Capacity Manual 2000

SIGNALIZED INTERSECTIONS

Level of Service is a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. Level of Service for signalized intersections is defined in terms of delay specifically, average total delay per vehicle for a 15 minute analysis period. The ranges are as follows:

Level of Service	Control Delay per vehicle (seconds)
A	< 10
B	10 – 20
C	20 – 35
D	35 – 55
E	55 – 80
F	>80

UNSIGNALIZED INTERSECTIONS

Level of Service for unsignalized intersections is also defined in terms of delay. However, the delay criteria are different from a signalized intersection. The primary reason for this is driver expectation that a signalized intersection is designed to carry higher volumes than an unsignalized intersection. The total delay threshold for any given Level of Service is less for an unsignalized intersection than for a signalized intersection. The ranges are as follows:

Level of Service	Control Delay per vehicle (seconds)
A	< 10
B	10 – 15
C	15 – 25
D	25 – 35
E	35 - 50
F	>50

A4

Level of Service Calculations: Existing Conditions

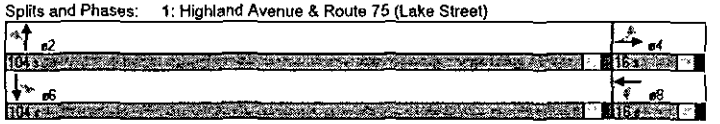
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		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		0.965			0.881			0.994			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1798	0	1770	1641	0	1770	1852	0	1770	1852	0
Flt Permitted	0.698			0.749			0.227			0.380		
Satd. Flow (perm)	1300	1798	0	1395	1641	0	423	1852	0	708	1852	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			54			8			8	
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			30			30	
Link Distance (ft)		200			370			446			287	
Travel Time (s)		4.5			8.4			10.1			6.5	
Volume (vph)	24	6	2	36	11	44	6	554	24	68	878	37
Peak Hour Factor	0.62	0.62	0.62	0.81	0.81	0.81	0.87	0.87	0.87	0.89	0.89	0.89
Adj. Flow (vph)	39	10	3	44	14	54	7	637	28	76	987	42
Lane Group Flow (vph)	39	13	0	44	68	0	7	665	0	76	1029	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	22.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	16.0	16.0	0.0	16.0	16.0	0.0	104.0	104.0	0.0	104.0	104.0	0.0
Total Split (%)	13.3%	13.3%	0.0%	13.3%	13.3%	0.0%	86.7%	86.7%	0.0%	86.7%	86.7%	0.0%
Maximum Green (s)	11.0	11.0		11.0	11.0		99.0	99.0		99.0	99.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
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)	9.8	9.8		9.8	9.8		104.0	104.0		104.0	104.0	
Actuated g/C Ratio	0.08	0.08		0.08	0.08		0.87	0.87		0.87	0.87	
v/c Ratio	0.37	0.09		0.39	0.37		0.02	0.41		0.12	0.63	
Control Delay	61.0	43.5		61.2	24.0		1.8	2.9		2.1	5.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	61.0	43.5		61.2	24.0		1.8	2.9		2.1	5.1	
LOS	E	D		E	C		A	A		A	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		56.6			38.6			2.8			4.9	
Approach LOS		E			D			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 118.9
Natural Cycle: 70
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.63
Intersection Signal Delay: 7.5 Intersection LOS: A
Intersection Capacity Utilization 70.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: Highland Avenue & Route 75 (Lake Street)



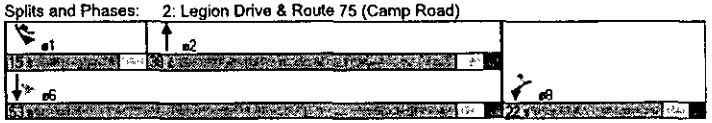
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	250		0	250	
Storage Lanes	1	1		0	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50
Trailing Detector (ft)	0	0	0		0	0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.970			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3433	0	1770	3539
Flt Permitted	0.950				0.268	
Satd. Flow (perm)	1770	1583	3433	0	499	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		207	55			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	35		40			40
Link Distance (ft)	760		863			689
Travel Time (s)	14.8		14.7			11.7
Volume (vph)	231	278	547	139	275	885
Peak Hour Factor	0.84	0.84	0.95	0.95	0.93	0.93
Adj. Flow (vph)	275	331	576	146	296	952
Lane Group Flow (vph)	275	331	722	0	296	952
Turn Type		pm+ov			pm+pt	
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phases	8	1	2		1	6
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	21.0	9.0	28.0		9.0	28.0
Total Split (s)	22.0	15.0	38.0	0.0	15.0	53.0
Total Split (%)	29.3%	20.0%	50.7%	0.0%	20.0%	70.7%
Maximum Green (s)	17.0	12.0	33.0		12.0	48.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	0.0	2.0		0.0	2.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	5.0		5.0			5.0
Flash Dont Walk (s)	11.0		11.0			11.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	13.4	22.5	17.0		30.7	32.6
Actuated g/C Ratio	0.26	0.46	0.35		0.63	0.67
v/c Ratio	0.59	0.39	0.59		0.54	0.40
Control Delay	24.2	5.0	15.7		9.7	6.6
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	24.2	5.0	15.7		9.7	6.6
LOS	C	A	B		A	A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach Delay	13.7		15.7		7.4	
Approach LOS	B		B		A	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 49
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.59
Intersection Signal Delay: 11.2 Intersection LOS: B
Intersection Capacity Utilization 57.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: Legion Drive & Route 75 (Camp Road)



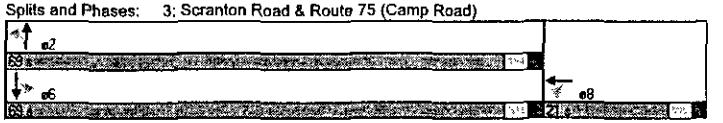
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	275		0	0		0	300		0
Storage Lanes	0		0	1		0	0		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	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	0.95	0.95	0.95	1.00	0.95	0.95
Frt					0.850			0.978				
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	0	0	1770	1583	0	0	3461	0	1770	3539	0
Flt Permitted				0.950						0.339		
Satd. Flow (perm)	0	0	0	1770	1583	0	0	3461	0	631	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					333			58				
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)		35			35			40			40	
Link Distance (ft)		92			373			1152			1898	
Travel Time (s)		1.8			7.3			19.6			32.4	
Volume (vph)	0	0	0	120	0	145	0	616	106	156	880	0
Peak Hour Factor	0.25	0.25	0.25	0.86	0.86	0.86	0.93	0.93	0.93	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	140	0	169	0	662	114	164	926	0
Lane Group Flow (vph)	0	0	0	140	169	0	0	776	0	164	926	0
Turn Type				Perm			Perm			Perm		
Protected Phases					8			2			6	
Permitted Phases				8			2			6		
Detector Phases				8	8		2	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		57.0	57.0		21.0	21.0	
Total Split (s)	0.0	0.0	0.0	21.0	21.0	0.0	69.0	69.0	0.0	69.0	69.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	23.3%	23.3%	0.0%	76.7%	76.7%	0.0%	76.7%	76.7%	0.0%
Maximum Green (s)				16.0	16.0		64.0	64.0		64.0	64.0	
Yellow Time (s)				3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)				2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode				None	None		Min	Min		Min	Min	
Walk Time (s)				5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)				11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)				0	0		0	0		0	0	
Act Effct Green (s)				12.5	12.5			36.6		36.6	36.6	
Actuated g/C Ratio				0.21	0.21			0.64		0.64	0.64	
v/c Ratio				0.38	0.28			0.35		0.41	0.41	
Control Delay				16.8	1.2			4.8		9.0	5.5	
Queue Delay				0.0	0.0			0.0		0.0	0.0	
Total Delay				16.8	1.2			4.8		9.0	5.5	
LOS				B	A			A		A	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay					6.2			4.8			6.0	
Approach LOS					A			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 57.4
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.41
Intersection Signal Delay: 5.9 Intersection LOS: A
Intersection Capacity Utilization 63.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Scranton Road & Route 75 (Camp Road)



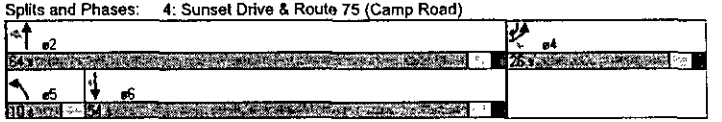
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	200			400
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.192			
Satd. Flow (perm)	1770	1583	358	3539	3539	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		32				343
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			40	40	
Link Distance (ft)	1822			1898	1224	
Travel Time (s)	41.4			32.4	20.9	
Volume (vph)	209	42	107	585	930	312
Peak Hour Factor	0.94	0.94	0.96	0.98	0.91	0.91
Adj. Flow (vph)	222	45	111	609	1022	343
Lane Group Flow (vph)	222	45	111	609	1022	343
Turn Type		Perm	pm+pt			pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	4
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)	26.0	26.0	10.0	64.0	54.0	26.0
Total Split (%)	28.9%	28.9%	11.1%	71.1%	60.0%	28.9%
Maximum Green (s)	21.0	21.0	7.0	59.0	49.0	21.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0	2.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	Max	Max	None
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)	16.7	16.7	60.0	60.2	52.4	74.0
Actuated g/C Ratio	0.20	0.20	0.69	0.71	0.62	0.87
v/c Ratio	0.64	0.13	0.33	0.24	0.47	0.24
Control Delay	39.8	14.1	7.3	5.1	10.9	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.8	14.1	7.3	5.1	10.9	0.6
LOS	D	B	A	A	B	A

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	35.5			5.4	8.3	
Approach LOS	D			A	A	

Intersection Summary

Area Type: *Other*
Cycle Length: 90
Actuated Cycle Length: 84.9
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 10.5 Intersection LOS: B
Intersection Capacity Utilization 53.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 4: Sunset Drive & Route 75 (Camp Road)



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	8	13	6	695	1355	16
Peak Hour Factor	0.75	0.75	0.96	0.96	0.90	0.90
Hourly flow rate (vph)	11	17	6	724	1506	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1768	762	1523			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1768	762	1523			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	86	95	99			
cM capacity (veh/h)	74	348	434			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	28	6	241	241	241	1004	520
Volume Left	11	6	0	0	0	0	0
Volume Right	17	0	0	0	0	0	18
cSH	144	434	1700	1700	1700	1700	1700
Volume to Capacity	0.19	0.01	0.14	0.14	0.14	0.59	0.31
Queue Length 95th (ft)	17	1	0	0	0	0	0
Control Delay (s)	36.0	13.4	0.0	0.0	0.0	0.0	0.0
Lane LOS	E	B					
Approach Delay (s)	36.0	0.1				0.0	
Approach LOS	E						

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	48.0%	ICU Level of Service	A
Analysis Period (min)	15		

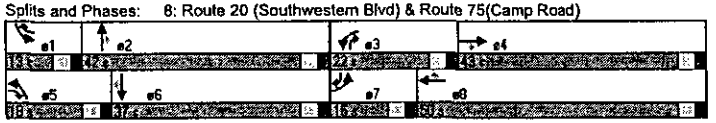
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		550	550		550	195		145	195		350
Storage Lanes	2		1	2		1	2		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			34			15			282			58
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)		50			45			45			45	
Link Distance (ft)		6123			996			1120			631	
Travel Time (s)		83.5			15.1			17.0			9.6	
Volume (vph)	134	370	200	296	737	14	362	436	276	21	750	262
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.98	0.98	0.98	0.96	0.96	0.96
Adj. Flow (vph)	146	402	217	322	801	15	369	445	282	22	781	273
Lane Group Flow (vph)	146	402	217	322	801	15	369	445	282	22	781	273
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phases	7	4	5	3	8	1	5	2	3	1	6	7
Minimum Initial (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
Minimum Split (s)	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0
Total Split (s)	15.0	43.0	18.0	22.0	50.0	13.0	18.0	42.0	22.0	13.0	37.0	15.0
Total Split (%)	12.5%	35.8%	15.0%	18.3%	41.7%	10.8%	15.0%	35.0%	18.3%	10.8%	30.8%	12.5%
Maximum Green (s)	10.0	38.0	13.0	17.0	45.0	8.0	13.0	37.0	17.0	8.0	32.0	10.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-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)	10.3	26.5	50.5	16.4	32.5	44.6	20.1	57.4	77.8	8.0	41.1	55.4
Actuated g/C Ratio	0.09	0.22	0.42	0.14	0.27	0.37	0.17	0.48	0.65	0.07	0.34	0.46
v/c Ratio	0.49	0.51	0.32	0.69	0.84	0.03	0.64	0.26	0.25	0.18	0.64	0.36
Control Delay	59.1	42.9	19.6	57.3	49.3	8.5	52.1	21.7	2.1	55.8	38.0	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.1	42.9	19.6	57.3	49.3	8.5	52.1	21.7	2.1	55.8	38.0	19.2
LOS	E	D	B	E	D	A	D	C	A	E	D	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		39.2			51.0			26.9			33.6	
Approach LOS		D			D			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 37.7 Intersection LOS: D
Intersection Capacity Utilization 68.6% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 8: Route 20 (Southwestern Blvd) & Route 75(Camp Road)



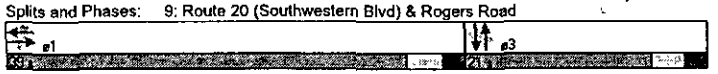
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	300		105	35		0	85		0
Storage Lanes	1		0	1		1	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50	50	50	50	50	50	50	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995				0.850		0.981			0.957	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3522	0	1770	3539	1583	1770	1827	0	1770	1783	0
Flt Permitted	0.248			0.413			0.673			0.685		
Satd. Flow (perm)	462	3522	0	769	3539	1583	1254	1827	0	1276	1783	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10				193		12			34	
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)		50			50			35			35	
Link Distance (ft)		1073			6123			963			918	
Travel Time (s)		14.6			83.5			18.8			17.9	
Volume (vph)	16	521	18	21	877	176	21	85	12	110	76	31
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.87	0.87	0.87	0.81	0.81	0.81
Adj. Flow (vph)	18	573	20	23	964	193	24	98	14	136	94	38
Lane Group Flow (vph)	18	593	0	23	964	193	24	112	0	136	132	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1		1	3			3		
Detector Phases	1	1		1	1	1	3	3		3	3	
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	27.0	27.0		27.0	27.0	27.0	21.0	21.0		21.0	21.0	
Total Split (s)	39.0	39.0	0.0	39.0	39.0	39.0	21.0	21.0	0.0	21.0	21.0	0.0
Total Split (%)	65.0%	65.0%	0.0%	65.0%	65.0%	65.0%	35.0%	35.0%	0.0%	35.0%	35.0%	0.0%
Maximum Green (s)	34.0	34.0		34.0	34.0	34.0	16.0	16.0		16.0	16.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min	Min	None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effct Green (s)	32.7	32.7		32.7	32.7	32.7	12.1	12.1		12.1	12.1	
Actuated g/C Ratio	0.64	0.64		0.64	0.64	0.64	0.23	0.23		0.23	0.23	
v/c Ratio	0.06	0.26		0.05	0.42	0.18	0.08	0.26		0.47	0.30	
Control Delay	5.8	5.2		5.4	6.2	1.5	15.3	14.5		20.5	12.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	5.8	5.2		5.4	6.2	1.5	15.3	14.5		20.5	12.9	
LOS	A	A		A	A	A	B	B		C	B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		5.2			5.4			14.6			16.8	
Approach LOS		A			A			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 50.8
Natural Cycle: 50
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.47
Intersection Signal Delay: 7.3 Intersection LOS: A
Intersection Capacity Utilization 43.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Route 20 (Southwestern Blvd) & Rogers Road



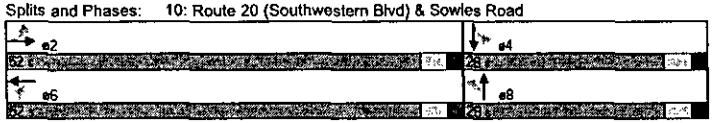
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.985			0.948			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3444	0	1770	3486	0	1770	1766	0	1770	1850	0
Flt Permitted	0.302			0.332			0.556			0.635		
Satd. Flow (perm)	563	3444	0	618	3486	0	1036	1766	0	1183	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		57			25			34			3	
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)		45			45			35			35	
Link Distance (ft)		996			2741			815			936	
Travel Time (s)		15.1			41.5			15.9			18.2	
Volume (vph)	11	568	123	18	698	75	126	83	44	53	149	7
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.86	0.86	0.86	0.79	0.79	0.79
Adj. Flow (vph)	12	611	132	19	735	79	147	97	51	67	189	9
Lane Group Flow (vph)	12	743	0	19	814	0	147	148	0	67	198	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		21.0	21.0		21.0	21.0	
Total Split (s)	52.0	52.0	0.0	52.0	52.0	0.0	28.0	28.0	0.0	28.0	28.0	0.0
Total Split (%)	65.0%	65.0%	0.0%	65.0%	65.0%	0.0%	35.0%	35.0%	0.0%	35.0%	35.0%	0.0%
Maximum Green (s)	47.0	47.0		47.0	47.0		23.0	23.0		23.0	23.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	55.1	55.1		55.1	55.1		16.9	16.9		16.9	16.9	
Actuated g/C Ratio	0.69	0.69		0.69	0.69		0.21	0.21		0.21	0.21	
v/c Ratio	0.03	0.31		0.04	0.34		0.67	0.37		0.27	0.51	
Control Delay	6.1	5.6		6.1	6.1		43.3	21.7		26.9	30.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	6.1	5.6		6.1	6.1		43.3	21.7		26.9	30.7	
LOS	A	A		A	A		D	C		C	C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		5.6			6.1			32.4			29.8	
Approach LOS		A			A			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 53 (66%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 12.4 — Intersection LOS: B
Intersection Capacity Utilization 46.9% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 10: Route 20 (Southwestern Blvd) & Sowles Road



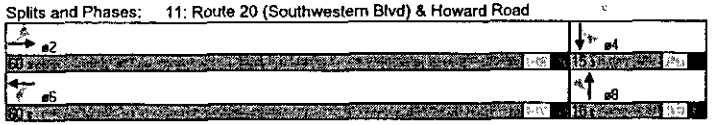
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	100		0
Storage Lanes	1		0	1		0	0		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.978						0.850	
Flt Protected	0.950			0.950				0.950		0.950		
Satd. Flow (prot)	1770	3539	0	1770	3461	0	0	1770	0	1770	1583	0
Flt Permitted	0.293			0.398				0.720		0.755		
Satd. Flow (perm)	546	3539	0	741	3461	0	0	1341	0	1406	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					74						277	
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)		45			45			30			30	
Link Distance (ft)		2741			732			192			400	
Travel Time (s)		41.5			11.1			4.4			9.1	
Volume (vph)	49	612	0	2	708	122	1	0	0	98	0	49
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.25	0.25	0.25	0.88	0.88	0.88
Adj. Flow (vph)	53	658	0	2	787	136	4	0	0	111	0	56
Lane Group Flow (vph)	53	658	0	2	923	0	0	4	0	111	56	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	60.0	60.0	0.0	60.0	60.0	0.0	15.0	15.0	0.0	15.0	15.0	0.0
Total Split (%)	80.0%	80.0%	0.0%	80.0%	80.0%	0.0%	20.0%	20.0%	0.0%	20.0%	20.0%	0.0%
Maximum Green (s)	55.0	55.0		55.0	55.0		10.0	10.0		10.0	10.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	70.4	70.4		70.4	70.4			10.7		10.8	10.8	
Actuated g/C Ratio	0.81	0.81		0.81	0.81			0.12		0.12	0.12	
v/c Ratio	0.12	0.23		0.00	0.33			0.02		0.65	0.13	
Control Delay	3.3	2.7		2.5	2.8			28.0		48.5	0.6	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	3.3	2.7		2.5	2.8			28.0		48.5	0.6	
LOS	A	A		A	A			C		D	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		2.7			2.8			28.0			32.4	
Approach LOS		A			A			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 87.1
Natural Cycle: 45
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 5.6 Intersection LOS: A
Intersection Capacity Utilization 41.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 11: Route 20 (Southwestern Blvd) & Howard Road



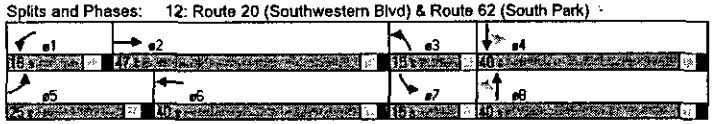
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	250		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.987			0.990			0.965			0.960	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3493	0	1770	3504	0	1770	3415	0	1770	3398	0
Flt Permitted	0.950			0.950			0.119			0.246		
Satd. Flow (perm)	1770	3493	0	1770	3504	0	222	3415	0	458	3398	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			6			34			44	
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)		45			45			45			45	
Link Distance (ft)		1014			518			1425			754	
Travel Time (s)		15.4			7.8			21.6			11.4	
Volume (vph)	178	541	50	129	576	40	75	415	127	42	559	204
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.87	0.87	0.87	0.91	0.91	0.91
Adj. Flow (vph)	191	582	54	139	619	43	86	477	146	46	614	224
Lane Group Flow (vph)	191	636	0	139	662	0	86	623	0	46	838	0
Turn Type	Prot			Prot			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8			4		
Detector Phases	5	2		1	6		3	8		7	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	15.0	38.0		16.0	38.0		9.0	37.0		9.0	37.0	
Total Split (s)	25.0	47.0	0.0	18.0	40.0	0.0	15.0	40.0	0.0	15.0	40.0	0.0
Total Split (%)	20.8%	39.2%	0.0%	15.0%	33.3%	0.0%	12.5%	33.3%	0.0%	12.5%	33.3%	0.0%
Maximum Green (s)	20.0	42.0		13.0	35.0		12.0	35.0		12.0	35.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	2.0		0.0	2.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		Min	Min		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)	15.2	26.5		12.0	23.3		35.3	27.9		33.1	26.8	
Actuated g/C Ratio	0.17	0.29		0.13	0.26		0.39	0.31		0.37	0.30	
v/c Ratio	0.64	0.62		0.59	0.73		0.40	0.58		0.18	0.80	
Control Delay	49.1	30.3		53.5	36.7		23.9	28.0		19.7	35.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	49.1	30.3		53.5	36.7		23.9	28.0		19.7	35.6	
LOS	D	C		D	D		C	C		B	D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		34.6			39.6			27.5			34.8	
Approach LOS		C			D			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 90
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 34.3 Intersection LOS: C
Intersection Capacity Utilization 66.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 12: Route 20 (Southwestern Blvd) & Route 62 (South Park)



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	8	56	45	790	1040	16
Peak Hour Factor	0.85	0.85	0.84	0.84	0.90	0.90
Hourly flow rate (vph)	9	66	54	940	1156	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				1100	745	
pX, platoon unblocked	0.90	0.90	0.90			
vC, conflicting volume	1742	587	1173			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1714	436	1085			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	86	87	91			
cM capacity (veh/h)	67	513	577			

Direction,Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	75	367	627	770	403
Volume Left	9	54	0	0	0
Volume Right	66	0	0	0	18
cSH	279	577	1700	1700	1700
Volume to Capacity	0.27	0.09	0.37	0.45	0.24
Queue Length 95th (ft)	27	8	0	0	0
Control Delay (s)	22.6	2.9	0.0	0.0	0.0
Lane LOS	C	A			
Approach Delay (s)	22.6	1.1		0.0	
Approach LOS	C				

Intersection Summary

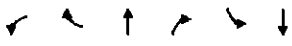
Average Delay 1.2
Intersection Capacity Utilization 66.0% ICU Level of Service C
Analysis Period (min) 15



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	3	0	6	9	0	18	10	776	9	2	1017	3
Peak Hour Factor	0.65	0.65	0.65	0.77	0.77	0.77	0.98	0.98	0.98	0.95	0.95	0.95
Hourly flow rate (vph)	5	0	9	12	0	23	10	792	9	2	1071	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								455				
pX, platoon unblocked	0.95	0.95		0.95	0.95	0.95				0.95		
vC, conflicting volume	1516	1898	537	1366	1895	401	1074			801		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1492	1893	537	1334	1890	321	1074			742		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	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 %	94	100	98	89	100	96	98			100		
cM capacity (veh/h)	77	65	488	103	65	643	645			821		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	14	35	10	528	273	2	714	360
Volume Left	5	12	10	0	0	2	0	0
Volume Right	9	23	0	0	9	0	0	3
cSH	176	234	645	1700	1700	821	1700	1700
Volume to Capacity	0.08	0.15	0.02	0.31	0.16	0.00	0.42	0.21
Queue Length 95th (ft)	6	13	1	0	0	0	0	0
Control Delay (s)	27.2	23.0	10.7	0.0	0.0	9.4	0.0	0.0
Lane LOS	D	C	B			A		
Approach Delay (s)	27.2	23.0	0.1			0.0		
Approach LOS	D	C						

Intersection Summary				
Average Delay	0.7			
Intersection Capacity Utilization	38.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	12	10	1192	18	13	1261
Peak Hour Factor	0.63	0.63	0.96	0.96	0.91	0.91
Hourly flow rate (vph)	19	16	1242	19	14	1386
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1972	630			1260	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1972	630			1260	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	64	96			97	
cM capacity (veh/h)	53	424			547	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	35	828	433	14	693	693
Volume Left	19	0	0	14	0	0
Volume Right	16	0	19	0	0	0
cSH	88	1700	1700	547	1700	1700
Volume to Capacity	0.40	0.49	0.25	0.03	0.41	0.41
Queue Length 95th (ft)	40	0	0	2	0	0
Control Delay (s)	70.6	0.0	0.0	11.8	0.0	0.0
Lane LOS	F			B		
Approach Delay (s)	70.6	0.0		0.1		
Approach LOS	F					

Intersection Summary				
Average Delay	1.0			
Intersection Capacity Utilization	44.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	21	24	1185	38	21	1256
Peak Hour Factor	0.70	0.70	0.94	0.94	0.89	0.89
Hourly flow rate (vph)	30	34	1261	40	24	1411
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						1062
pX, platoon unblocked	*0.62*					
vC, conflicting volume	2034	651			1301	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2041	651			1301	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	21	92			96	
cM capacity (veh/h)	38	411			528	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	64	840	461	24	706	706
Volume Left	30	0	0	24	0	0
Volume Right	34	0	40	0	0	0
cSH	*74*	*1700*	*1700*	*528*	*1700*	*1700*
Volume to Capacity	0.87	0.49	0.27	0.04	0.42	0.42
Queue Length 95th (ft)	109	0	0	3	0	0
Control Delay (s)	165.1	0.0	0.0	12.1	0.0	0.0
Lane LOS	F			B		
Approach Delay (s)	165.1	0.0		0.2		
Approach LOS	F					

Intersection Summary			
Average Delay	3.9		
Intersection Capacity Utilization	44.7%	ICU Level of Service	A
Analysis Period (min)	15		

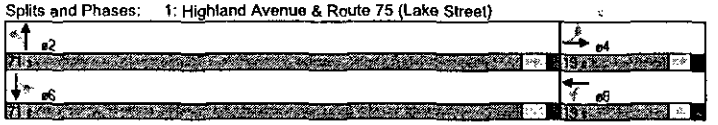
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		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		0.925			0.858			0.993			0.995	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1723	0	1770	1598	0	1770	1850	0	1770	1853	0
Flt Permitted	0.673			0.754			0.414			0.290		
Satd. Flow (perm)	1254	1723	0	1405	1598	0	771	1850	0	540	1853	0
Right Turn on Red		*Yes*			*Yes*			*Yes*			*Yes*	
Satd. Flow (RTOR)		3			95			8			5	
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			30			30	
Link Distance (ft)		200			370			446			287	
Travel Time (s)		4.5			8.4			10.1			6.5	
Volume (vph)	10	2	2	29	4	77	3	648	32	49	509	17
Peak Hour Factor	0.58	0.58	0.58	0.81	0.81	0.81	0.86	0.86	0.86	0.95	0.95	0.95
Adj. Flow (vph)	17	3	3	36	5	95	3	753	37	52	536	18
Lane Group Flow (vph)	17	6	0	36	100	0	3	790	0	52	554	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	22.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	19.0	19.0	0.0	19.0	19.0	0.0	71.0	71.0	0.0	71.0	71.0	0.0
Total Split (%)	21.1%	21.1%	0.0%	21.1%	21.1%	0.0%	78.9%	78.9%	0.0%	78.9%	78.9%	0.0%
Maximum Green (s)	14.0	14.0		14.0	14.0		66.0	66.0		66.0	66.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	9.2	9.2		9.2	9.2		81.0	81.0		81.0	81.0	
Actuated g/C Ratio	0.09	0.09		0.09	0.09		0.84	0.84		0.84	0.84	
v/c Ratio	0.14	0.04		0.27	0.42		0.00	0.51		0.11	0.35	
Control Delay	36.5	27.0		39.6	14.2		2.0	4.1		2.7	3.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	36.5	27.0		39.6	14.2		2.0	4.1		2.7	3.0	
LOS	D	C		D	B		A	A		A	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		34.0			20.9			4.1			2.9	
Approach LOS		C			C			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 95.9
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.51
Intersection Signal Delay: 5.5 Intersection LOS: A
Intersection Capacity Utilization 55.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Highland Avenue & Route 75 (Lake Street)



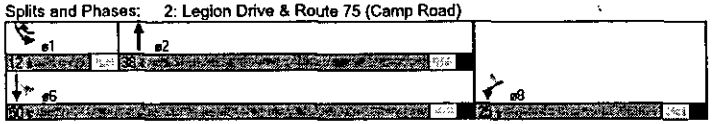
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	250		0	250	
Storage Lanes	1	1		0	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50
Trailing Detector (ft)	0	0	0		0	0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.961			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3401	0	1770	3539
Flt Permitted	0.950				0.247	
Satd. Flow (perm)	1770	1583	3401	0	460	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		211	86			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	35		40			40
Link Distance (ft)	760		863			689
Travel Time (s)	14.8		14.7			11.7
Volume (vph)	173	250	502	176	220	460
Peak Hour Factor	0.95	0.95	0.88	0.88	0.93	0.93
Adj. Flow (vph)	182	263	570	200	237	495
Lane Group Flow (vph)	182	263	770	0	237	495
Turn Type		pm+ov			pm+pt	
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phases	8	1	2		1	6
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	21.0	9.0	28.0		9.0	28.0
Total Split (s)	25.0	12.0	38.0	0.0	12.0	50.0
Total Split (%)	33.3%	16.0%	50.7%	0.0%	16.0%	66.7%
Maximum Green (s)	20.0	9.0	33.0		9.0	45.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	0.0	2.0		0.0	2.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	5.0		5.0			5.0
Flash Dont Walk (s)	11.0		11.0			11.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	11.1	19.0	18.9		30.0	31.2
Actuated g/C Ratio	0.23	0.41	0.41		0.65	0.67
v/c Ratio	0.45	0.34	0.54		0.48	0.21
Control Delay	20.6	4.0	12.4		8.4	4.9
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	20.6	4.0	12.4		8.4	4.9
LOS	C	A	B		A	A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach Delay	10.7		12.4			6.0
Approach LOS	B		B			A

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 46.4
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 9.6 Intersection LOS: A
Intersection Capacity Utilization 51.3% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: Legion Drive & Route 75 (Camp Road)



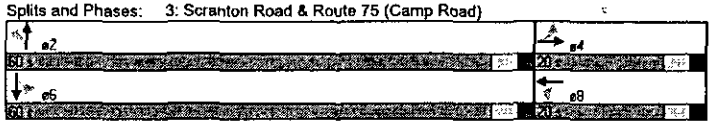
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	275		0	0		0	300		0
Storage Lanes	0		0	1		0	0		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		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	0.95	0.95	0.95	1.00	0.95	0.95
Frt		0.916			0.851			0.984				
Flt Protected		0.982		0.950						0.950		
Satd. Flow (prot)	0	1676	0	1770	1585	0	0	3483	0	1770	3539	0
Flt Permitted		0.922		0.752				0.955		0.357		
Satd. Flow (perm)	0	1573	0	1401	1585	0	0	3326	0	665	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			120			38			1	
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)		35			35			40			40	
Link Distance (ft)		92			373			1152			1898	
Travel Time (s)		1.8			7.3			19.6			32.4	
Volume (vph)	1	0	2	100	1	106	1	633	75	107	520	1
Peak Hour Factor	0.38	0.38	0.38	0.88	0.88	0.88	0.97	0.97	0.97	0.95	0.95	0.95
Adj. Flow (vph)	3	0	5	114	1	120	1	653	77	113	547	1
Lane Group Flow (vph)	0	8	0	114	121	0	0	731	0	113	548	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		57.0	57.0		21.0	21.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	60.0	60.0	0.0	60.0	60.0	0.0
Total Split (%)	25.0%	25.0%	0.0%	25.0%	25.0%	0.0%	75.0%	75.0%	0.0%	75.0%	75.0%	0.0%
Maximum Green (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		11.2		11.3	11.3			27.4		27.4	27.4	
Actuated g/C Ratio		0.23		0.23	0.23			0.60		0.60	0.60	
v/c Ratio		0.02		0.35	0.26			0.37		0.28	0.26	
Control Delay		8.0		13.0	4.5			5.6		8.1	5.3	
Queue Delay		0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay		8.0		13.0	4.5			5.6		8.1	5.3	
LOS		A		B	A			A		A	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		8.0			8.6			5.6			5.7	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 45.9
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.37
Intersection Signal Delay: 6.1 Intersection LOS: A
Intersection Capacity Utilization 56.5% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Scranton Road & Route 75 (Camp Road)



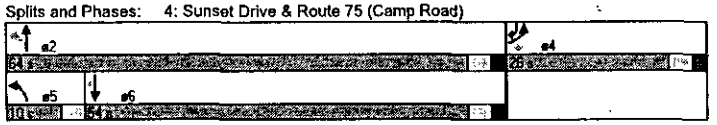
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	200			400
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.380			
Satd. Flow (perm)	1770	1583	708	3539	3539	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		58				122
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			40	40	
Link Distance (ft)	1822			1898	1224	
Travel Time (s)	41.4			32.4	20.9	
Volume (vph)	172	63	74	625	550	121
Peak Hour Factor	0.95	0.95	0.98	0.98	0.99	0.99
Adj. Flow (vph)	181	66	76	638	556	122
Lane Group Flow (vph)	181	66	76	638	556	122
Turn Type		Perm	pm+pt			pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	4
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)	26.0	26.0	10.0	64.0	54.0	26.0
Total Split (%)	28.9%	28.9%	11.1%	71.1%	60.0%	28.9%
Maximum Green (s)	21.0	21.0	7.0	59.0	49.0	21.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0	2.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	Max	Max	None
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)	15.0	15.0	62.4	62.4	54.6	74.4
Actuated g/C Ratio	0.18	0.18	0.72	0.73	0.64	0.87
v/c Ratio	0.58	0.20	0.13	0.25	0.25	0.09
Control Delay	38.9	11.2	4.6	4.5	8.0	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.9	11.2	4.6	4.5	8.0	0.4
LOS	D	B	A	A	A	A

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	31.5			4.5	6.6	
Approach LOS	C			A	A	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 85.4
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 9.5 Intersection LOS: A
Intersection Capacity Utilization 38.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 4: Sunset Drive & Route 75 (Camp Road)



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	15	17	5	648	713	15
Peak Hour Factor	0.73	0.73	0.96	0.96	0.94	0.94
Hourly flow rate (vph)	21	23	5	675	759	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1002	387	774			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1002	387	774			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	91	96	99			
cM capacity (veh/h)	238	611	837			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	44	5	225	225	225	506	269
Volume Left	21	5	0	0	0	0	0
Volume Right	23	0	0	0	0	0	16
cSH	352	837	1700	1700	1700	1700	1700
Volume to Capacity	0.12	0.01	0.13	0.13	0.13	0.30	0.16
Queue Length 95th (ft)	11	0	0	0	0	0	0
Control Delay (s)	16.7	9.3	0.0	0.0	0.0	0.0	0.0
Lane LOS	C	A					
Approach Delay (s)	16.7	0.1				0.0	
Approach LOS	C						

Intersection Summary

Average Delay 0.5
Intersection Capacity Utilization 30.2% ICU Level of Service A
Analysis Period (min) 15

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		550	550		550	195		145	195		350
Storage Lanes	2		1	2		1	2		1	1		1
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	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			213			35			319			108
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)		50			45			45			45	
Link Distance (ft)		6123			996			1120			631	
Travel Time (s)		83.5			15.1			17.0			9.6	
Volume (vph)	111	435	194	271	503	33	240	363	307	32	281	104
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.94	0.94	0.94	0.96	0.96	0.96
Adj. Flow (vph)	122	478	213	285	529	35	255	386	327	33	293	108
Lane Group Flow (vph)	122	478	213	285	529	35	255	386	327	33	293	108
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phases	7	4	5	3	8	1	5	2	3	1	6	7
Minimum Initial (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
Minimum Split (s)	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0
Total Split (s)	16.0	45.0	20.0	23.0	52.0	20.0	20.0	42.0	23.0	20.0	42.0	16.0
Total Split (%)	12.3%	34.6%	15.4%	17.7%	40.0%	15.4%	15.4%	32.3%	17.7%	15.4%	32.3%	12.3%
Maximum Green (s)	11.0	40.0	15.0	18.0	47.0	15.0	15.0	37.0	18.0	15.0	37.0	11.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-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)	10.6	22.5	42.7	16.5	28.4	41.3	16.2	68.2	88.7	8.9	58.8	73.4
Actuated g/C Ratio	0.08	0.17	0.33	0.13	0.22	0.32	0.12	0.52	0.68	0.07	0.45	0.56
v/c Ratio	0.44	0.78	0.32	0.66	0.68	0.07	0.60	0.21	0.28	0.27	0.18	0.11
Control Delay	61.6	60.4	4.6	61.3	51.0	8.3	59.4	18.8	1.8	62.4	23.6	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.6	60.4	4.6	61.3	51.0	8.3	59.4	18.8	1.8	62.4	23.6	3.5
LOS	E	E	A	E	D	A	E	B	A	E	C	A

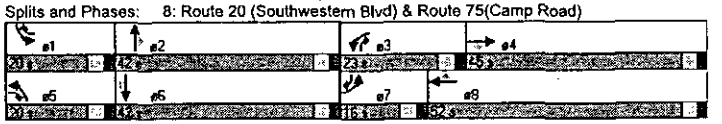
Proposed Camp Road Retail
8: Route 20 (Southwestern Blvd) & Route 75(Camp Road)
SAT Peak - Existing Conditions
6/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		46.0			52.7			23.8			21.5	
Approach LOS		D			D			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 37.3 Intersection LOS: D
Intersection Capacity Utilization 47.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 8: Route 20 (Southwestern Blvd) & Route 75(Camp Road)



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Synchro 6
SRF & Associates

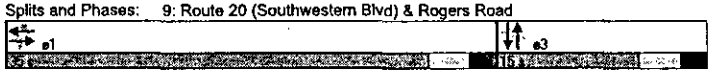
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	300		105	35		0	85		0
Storage Lanes	1		0	1		1	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50	50	50	50		50	50	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996				0.850		0.970			0.963	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3525	0	1770	3539	1583	1770	1807	0	1770	1794	0
Flt Permitted	0.461			0.452			0.681			0.706		
Satd. Flow (perm)	859	3525	0	842	3539	1583	1269	1807	0	1315	1794	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10				123		16			29	
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)		50			50			35			35	
Link Distance (ft)		1073			6123			963			918	
Travel Time (s)		14.6			83.5			18.8			17.9	
Volume (vph)	30	519	14	13	517	123	15	57	14	118	82	27
Peak Hour Factor	0.99	0.99	0.99	1.00	1.00	1.00	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	30	524	14	13	517	123	17	63	16	128	89	29
Lane Group Flow (vph)	30	538	0	13	517	123	17	79	0	128	118	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1		1	3			3		
Detector Phases	1	1		1	1	1	3	3		3	3	
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	27.0	27.0		27.0	27.0	27.0	21.0	21.0		21.0	21.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	35.0	15.0	15.0	0.0	15.0	15.0	0.0
Total Split (%)	70.0%	70.0%	0.0%	70.0%	70.0%	70.0%	30.0%	30.0%	0.0%	30.0%	30.0%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0	30.0	10.0	10.0		10.0	10.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min	Min	None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effct Green (s)	30.0	30.0		30.0	30.0	30.0	12.8	12.8		12.8	12.8	
Actuated g/C Ratio	0.58	0.58		0.58	0.58	0.58	0.24	0.24		0.24	0.24	
v/c Ratio	0.06	0.26		0.03	0.25	0.13	0.06	0.18		0.41	0.26	
Control Delay	5.3	5.1		5.0	5.2	1.7	10.5	9.1		14.3	9.3	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	5.3	5.1		5.0	5.2	1.7	10.5	9.1		14.3	9.3	
LOS	A	A		A	A	A	B	A		B	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		5.1			4.5			9.4			11.9	
Approach LOS		A			A			A			B	

Intersection Summary

Area Type: Other
Cycle Length: 50
Actuated Cycle Length: 51.5
Natural Cycle: 50
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.41
Intersection Signal Delay: 6.2 — Intersection LOS: A
Intersection Capacity Utilization 41.3% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Route 20 (Southwestern Blvd) & Rogers Road



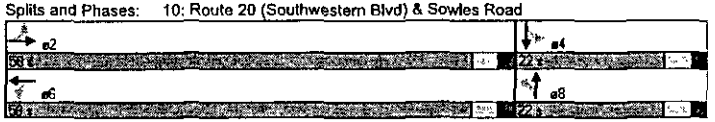
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.874			0.988			0.986			0.960	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3447	0	1770	3497	0	1770	1779	0	1770	1788	0
Flt Permitted	0.406			0.344			0.697			0.687		
Satd. Flow (perm)	756	3447	0	641	3497	0	1298	1779	0	1280	1788	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		69			25			25			21	
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)		45			45			35			35	
Link Distance (ft)		996			2741			815			936	
Travel Time (s)		15.1			41.5			15.9			18.2	
Volume (vph)	20	583	123	12	520	45	117	64	28	31	62	23
Peak Hour Factor	0.94	0.94	0.94	0.92	0.92	0.92	0.84	0.84	0.84	0.91	0.91	0.91
Adj. Flow (vph)	21	620	131	13	565	49	139	76	33	34	68	25
Lane Group Flow (vph)	21	751	0	13	614	0	139	109	0	34	93	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		21.0	21.0		21.0	21.0	
Total Split (s)	58.0	58.0	0.0	58.0	58.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0
Total Split (%)	72.5%	72.5%	0.0%	72.5%	72.5%	0.0%	27.5%	27.5%	0.0%	27.5%	27.5%	0.0%
Maximum Green (s)	53.0	53.0		53.0	53.0		17.0	17.0		17.0	17.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	58.0	58.0		58.0	58.0		14.0	14.0		14.0	14.0	
Actuated g/C Ratio	0.72	0.72		0.72	0.72		0.18	0.18		0.18	0.18	
v/c Ratio	*0.04*	*0.30*		*0.03*	*0.24*		*0.61*	*0.33*		*0.15*	*0.28*	
Control Delay	4.2	4.2		4.2	4.2		41.5	24.0		27.8	23.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	4.2	4.2		4.2	4.2		41.5	24.0		27.8	23.6	
LOS	A	A		A	A		D	C		C	C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		4.2			4.2			33.8			24.8	
Approach LOS		A			A			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 53 (66%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 9.8 Intersection LOS: A
Intersection Capacity Utilization 39.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 10: Route 20 (Southwestern Blvd) & Sowles Road

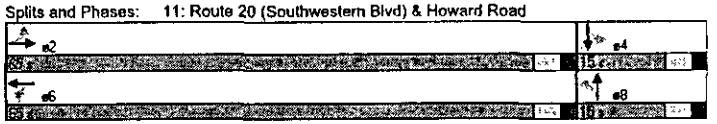


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	100		0
Storage Lanes	1		0	1		0	0		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.980						0.850	
Flt Protected	0.950							0.950		0.950		
Satd. Flow (prot)	1770	3539	0	1863	3468	0	0	1770	0	1770	1583	0
Flt Permitted	0.359							0.728		0.755		
Satd. Flow (perm)	669	3539	0	1863	3468	0	0	1356	0	1406	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						63					361	
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)		45			45			30			30	
Link Distance (ft)		2741			732			192			400	
Travel Time (s)		41.5			11.1			4.4			9.1	
Volume (vph)	38	682	1	0	599	91	1	0	0	97	0	36
Peak Hour Factor	0.89	0.89	0.89	0.92	0.92	0.92	0.25	0.25	0.25	0.81	0.81	0.81
Adj. Flow (vph)	43	766	1	0	651	99	4	0	0	120	0	44
Lane Group Flow (vph)	43	767	0	0	750	0	0	4	0	120	44	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	65.0	65.0	0.0	65.0	65.0	0.0	15.0	15.0	0.0	15.0	15.0	0.0
Total Split (%)	81.3%	81.3%	0.0%	81.3%	81.3%	0.0%	18.8%	18.8%	0.0%	18.8%	18.8%	0.0%
Maximum Green (s)	60.0	60.0		60.0	60.0		10.0	10.0		10.0	10.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	74.8	74.8			74.8			10.7		11.0	11.0	
Actuated g/C Ratio	0.82	0.82			0.82			0.11		0.12	0.12	
v/c Ratio	0.08	0.26			0.26			0.03		0.73	0.09	
Control Delay	2.8	2.7			2.4			30.0		58.6	0.3	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	2.8	2.7			2.4			30.0		58.6	0.3	
LOS	A	A			A			C		E	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		2.7			2.4			30.0			43.0	
Approach LOS		A			A			C			D	

Intersection Summary
Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 91.4
Natural Cycle: 45
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 6.5 Intersection LOS: A
Intersection Capacity Utilization 37.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 11: Route 20 (Southwestern Blvd) & Howard Road



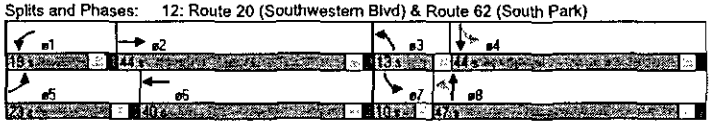
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	250		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.983			0.990			0.960			0.957	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3479	0	1770	3504	0	1770	3398	0	1770	3387	0
Flt Permitted	0.950			0.950			0.293			0.323		
Satd. Flow (perm)	1770	3479	0	1770	3504	0	546	3398	0	602	3387	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			6			48			53	
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)		45			45			45			45	
Link Distance (ft)		1014			518			1425			754	
Travel Time (s)		15.4			7.8			21.6			11.4	
Volume (vph)	128	624	81	99	530	38	54	390	141	50	371	147
Peak Hour Factor	0.88	0.88	0.88	0.94	0.94	0.94	0.88	0.88	0.88	0.93	0.93	0.93
Adj. Flow (vph)	145	709	92	105	564	40	61	443	160	54	399	158
Lane Group Flow (vph)	145	801	0	105	604	0	61	603	0	54	557	0
Turn Type	Prot			Prot			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8			4		
Detector Phases	5	2		1	6		3	8		7	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	15.0	38.0		16.0	38.0		9.0	37.0		9.0	37.0	
Total Split (s)	23.0	44.0	0.0	19.0	40.0	0.0	13.0	47.0	0.0	10.0	44.0	0.0
Total Split (%)	19.2%	36.7%	0.0%	15.8%	33.3%	0.0%	10.8%	39.2%	0.0%	8.3%	36.7%	0.0%
Maximum Green (s)	18.0	39.0		14.0	35.0		10.0	42.0		7.0	39.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	2.0		0.0	2.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		Min	Min		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)	12.4	23.9		10.7	22.2		25.5	19.2		24.2	18.5	
Actuated g/C Ratio	0.16	0.31		0.14	0.29		0.33	0.25		0.32	0.24	
v/c Ratio	0.51	0.73		0.42	0.59		0.21	0.68		0.19	0.65	
Control Delay	39.5	28.1		40.5	26.8		19.7	29.0		19.7	28.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	39.5	28.1		40.5	26.8		19.7	29.0		19.7	28.7	
LOS	D	C		D	C		B	C		B	C	

Proposed Camp Road Retail — SAT Peak - Existing Conditions
12: Route 20 (Southwestern Blvd) & Route 62 (South Park) — 6/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		29.9			28.8			28.1			27.9	
Approach LOS		C			C			C			C	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 76.5	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 28.8	Intersection LOS: C
Intersection Capacity Utilization 57.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Route 20 (Southwestern Blvd) & Route 62 (South Park)



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Synchro 6
SRF & Associates



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	10	40	42	739	615	30
Peak Hour Factor	0.54	0.54	0.96	0.96	0.93	0.93
Hourly flow rate (vph)	19	74	44	770	661	32
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				1100	745	
pX, platoon unblocked						
vC, conflicting volume	1150	347	694			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1150	347	694			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	90	89	95			
cM capacity (veh/h)	182	649	898			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	93	300	513	441	253
Volume Left	19	44	0	0	0
Volume Right	74	0	0	0	32
cSH	429	898	1700	1700	1700
Volume to Capacity	0.22	0.05	0.30	0.26	0.15
Queue Length 95th (ft)	20	4	0	0	0
Control Delay (s)	15.7	1.8	0.0	0.0	0.0
Lane LOS	C	A			
Approach Delay (s)	15.7	0.7		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	3	0	16	19	0	16	13	739	3	6	610	0
Peak Hour Factor	0.67	0.67	0.67	0.72	0.72	0.72	0.85	0.85	0.85	0.87	0.87	0.87
Hourly flow rate (vph)	4	0	24	26	0	22	15	869	4	7	701	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								455				
pX, platoon unblocked	0.95	0.95		0.95	0.95	0.95				0.95		
vC, conflicting volume	1202	1618	351	1290	1617	436	701			873		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1158	1597	351	1250	1595	349	701			810		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	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 %	97	100	96	77	100	96	98			99		
cM capacity (veh/h)	135	97	646	115	98	613	892			769		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	28	49	15	580	293	7	467	234
Volume Left	4	26	15	0	0	7	0	0
Volume Right	24	22	10	0	4	0	0	0
cSH	405	184	892	1700	1700	769	1700	1700
Volume to Capacity	0.07	0.26	0.02	0.34	0.17	0.01	0.27	0.14
Queue Length 95th (ft)	6	25	1	0	0	1	0	0
Control Delay (s)	14.6	31.5	9.1	0.0	0.0	9.7	0.0	0.0
Lane LOS	B	D	A			A		
Approach Delay (s)	14.6	31.5	0.2			0.1		
Approach LOS	B	D						

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	32.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	9	4	985	37	9	820
Peak Hour Factor	0.54	0.54	0.90	0.90	0.91	0.91
Hourly flow rate (vph)	17	7	1094	41	10	901
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1585	568			1136	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1585	568			1136	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	83	98			98	
cM capacity (veh/h)	97	466			611	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	24	730	406	10	451	451
Volume Left	17	0	0	10	0	0
Volume Right	7	0	41	0	0	0
cSH	129	1700	1700	611	1700	1700
Volume to Capacity	0.19	0.43	0.24	0.02	0.27	0.27
Queue Length 95th (ft)	16	0	0	1	0	0
Control Delay (s)	39.3	0.0	0.0	11.0	0.0	0.0
Lane LOS	E			B		
Approach Delay (s)	39.3	0.0		0.1		
Approach LOS	E					

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	38.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	17	21	986	26	19	781
Peak Hour Factor	0.95	0.95	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	18	22	1084	29	21	858
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						1062
pX, platoon unblocked	0.98					
vC, conflicting volume	1589	556			1112	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1561	556			1112	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	82	95			97	
cM capacity (veh/h)	98	474			624	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	40	722	390	21	429	429
Volume Left	18	0	0	21	0	0
Volume Right	22	0	29	0	0	0
cSH	174	1700	1700	624	1700	1700
Volume to Capacity	0.23	0.42	0.23	0.03	0.25	0.25
Queue Length 95th (ft)	21	0	0	3	0	0
Control Delay (s)	31.8	0.0	0.0	11.0	0.0	0.0
Lane LOS	D			B		
Approach Delay (s)	31.8	0.0		0.3		
Approach LOS	D					

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	38.1%	ICU Level of Service	A
Analysis Period (min)	15		

A5

Level of Service Calculations: Background Conditions

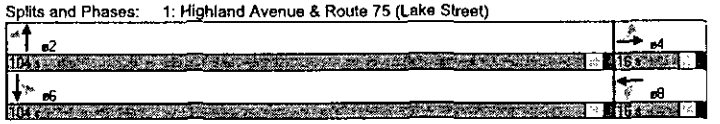
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		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		0.965			0.881			0.994			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1798	0	1770	1641	0	1770	1852	0	1770	1852	0
Flt Permitted	0.676			0.749			0.196			0.357		
Satd. Flow (perm)	1259	1798	0	1395	1641	0	365	1852	0	665	1852	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			58			8			8	
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			30			30	
Link Distance (ft)		200			370			446			287	
Travel Time (s)		4.5			8.4			10.1			6.5	
Volume (vph)	26	6	2	39	12	47	6	597	26	73	946	40
Peak Hour Factor	0.62	0.62	0.62	0.81	0.81	0.81	0.87	0.87	0.87	0.89	0.89	0.89
Adj. Flow (vph)	42	10	3	48	15	58	7	686	30	82	1063	45
Lane Group Flow (vph)	42	13	0	48	73	0	7	716	0	82	1108	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	22.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	16.0	16.0	0.0	16.0	16.0	0.0	104.0	104.0	0.0	104.0	104.0	0.0
Total Split (%)	*13.3%*	*13.3%*	*0.0%*	*13.3%*	*13.3%*	*0.0%*	*86.7%*	*86.7%*	*0.0%*	*86.7%*	*86.7%*	*0.0%*
Maximum Green (s)	11.0	11.0		11.0	11.0		99.0	99.0		99.0	99.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
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)	10.0	10.0		10.0	10.0		104.0	104.0		104.0	104.0	
Actuated g/C Ratio	0.08	0.08		0.08	0.08		0.87	0.87		0.87	0.87	
v/c Ratio	*0.40*	*0.09*		*0.42*	*0.39*		*0.02*	*0.44*		*0.14*	*0.68*	
Control Delay	62.8	43.4		62.2	23.8		1.8	3.1		2.3	6.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	62.8	43.4		62.2	23.8		1.8	3.1		2.3	6.0	
LOS	E	D		E	C		A	A		A	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		58.2			39.0			3.1			5.8	
Approach LOS		E			D			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 119
Natural Cycle: 75
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 8.1 — Intersection LOS: A
Intersection Capacity Utilization 74.4% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: Highland Avenue & Route 75 (Lake Street)



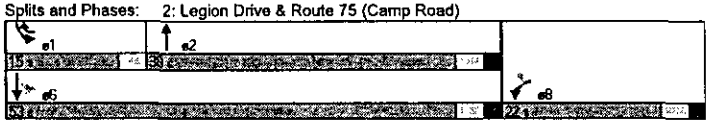
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	250		0	250	
Storage Lanes	1	1		0	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50
Trailing Detector (ft)	0	0	0		0	0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.970			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3433	0	1770	3539
Flt Permitted	0.950				0.244	
Satd. Flow (perm)	1770	1583	3433	0	455	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		181	55			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	35		40			40
Link Distance (ft)	760		863			689
Travel Time (s)	14.8		14.7			11.7
Volume (vph)	249	307	589	150	304	953
Peak Hour Factor	0.84	0.84	0.95	0.95	0.93	0.93
Adj. Flow (vph)	296	365	620	158	327	1025
Lane Group Flow (vph)	296	365	778	0	327	1025
Turn Type		pm+ov			pm+pt	
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phases	8	1	2		1	6
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	21.0	9.0	28.0		9.0	28.0
Total Split (s)	22.0	15.0	38.0	0.0	15.0	53.0
Total Split (%)	29.3%	20.0%	50.7%	0.0%	20.0%	70.7%
Maximum Green (s)	17.0	12.0	33.0		12.0	48.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	0.0	2.0		0.0	2.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	5.0		5.0			5.0
Flash Dont Walk (s)	11.0		11.0			11.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	14.3	27.7	18.4		31.8	31.8
Actuated g/C Ratio	0.26	0.51	0.34		0.58	0.58
v/c Ratio	0.64	0.41	0.65		0.67	0.50
Control Delay	26.5	6.3	17.4		14.1	7.8
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	26.5	6.3	17.4		14.1	7.8
LOS	C	A	B		B	A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach Delay	15.3		17.4			9.3
Approach LOS	B		B			A

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 54.5
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 13.0 — Intersection LOS: B
Intersection Capacity Utilization 61.7% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: Legion Drive & Route 75 (Camp Road)

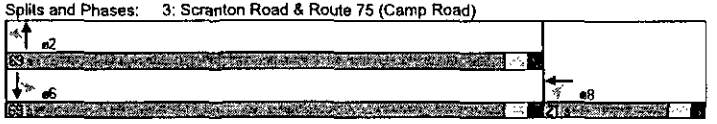


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	275		0	0		0	300		0
Storage Lanes	0		0	1		0	0		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	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	0.95	0.95	0.95	1.00	0.95	0.95
Frt					0.850			0.978				
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	0	0	1770	1583	0	0	3461	0	1770	3539	0
Flt Permitted				0.950						0.312		
Satd. Flow (perm)	0	0	0	1770	1583	0	0	3461	0	581	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					297			55				
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)		35			35			40			40	
Link Distance (ft)		92			373			1152			1898	
Travel Time (s)		1.8			7.3			19.6			32.4	
Volume (vph)	0	0	0	129	0	164	0	672	114	176	956	0
Peak Hour Factor	0.25	0.25	0.25	0.86	0.86	0.86	0.93	0.93	0.93	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	150	0	191	0	723	123	185	1006	0
Lane Group Flow (vph)	0	0	0	150	191	0	0	846	0	185	1006	0
Turn Type				Perm			Perm			Perm		
Protected Phases					8			2			6	
Permitted Phases				8			2			6		
Detector Phases				8	8		2	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		57.0	57.0		21.0	21.0	
Total Split (s)	0.0	0.0	0.0	21.0	21.0	0.0	69.0	69.0	0.0	69.0	69.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	23.3%	23.3%	0.0%	76.7%	76.7%	0.0%	76.7%	76.7%	0.0%
Maximum Green (s)				16.0	16.0		64.0	64.0		64.0	64.0	
Yellow Time (s)				3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)				2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode				None	None		Min	Min		Min	Min	
Walk Time (s)				5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)				11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)				0	0		0	0		0	0	
Act Effct Green (s)				12.2	12.2			37.6		37.6	37.6	
Actuated g/C Ratio				0.21	0.21			0.66		0.66	0.66	
v/c Ratio				0.41	0.34			0.37		0.48	0.43	
Control Delay				19.8	2.1			4.8		10.8	5.6	
Queue Delay				0.0	0.0			0.0		0.0	0.0	
Total Delay				19.8	2.1			4.8		10.8	5.6	
LOS				B	A			A		B	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay					9.9			4.8			6.4	
Approach LOS					A			A			A	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 57.2	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.48	
Intersection Signal Delay: 6.3	Intersection LOS: A
Intersection Capacity Utilization 68.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Scranton Road & Route 75 (Camp Road)



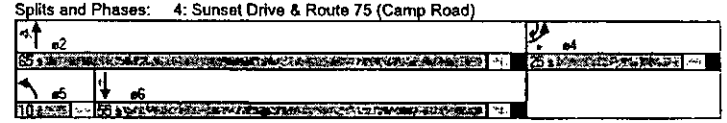
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	200			400
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.167			
Satd. Flow (perm)	1770	1583	311	3539	3539	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		29				387
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			40	40	
Link Distance (ft)	1822			1898	1224	
Travel Time (s)	41.4			32.4	20.9	
Volume (vph)	241	45	115	646	1018	352
Peak Hour Factor	0.94	0.94	0.96	0.96	0.91	0.91
Adj. Flow (vph)	256	48	120	673	1119	387
Lane Group Flow (vph)	256	48	120	673	1119	387
Turn Type		Perm	pm+pt			pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	4
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)	25.0	25.0	10.0	65.0	55.0	25.0
Total Split (%)	27.8%	27.8%	11.1%	72.2%	61.1%	27.8%
Maximum Green (s)	20.0	20.0	7.0	60.0	50.0	20.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0	2.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	Max	Max	None
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)	17.7	17.7	61.1	61.1	53.3	75.9
Actuated g/C Ratio	0.20	0.20	0.69	0.70	0.61	0.87
v/c Ratio	0.71	0.14	0.39	0.27	0.51	0.27
Control Delay	43.6	16.0	8.5	5.4	11.7	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.6	16.0	8.5	5.4	11.7	0.6
LOS	D	B	A	A	B	A

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	39.2			5.9	8.8	
Approach LOS	D			A	A	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 86.8
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 11.5 Intersection LOS: B
Intersection Capacity Utilization 57.9% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 4: Sunset Drive & Route 75 (Camp Road)





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	9	14	6	781	1492	17
Peak Hour Factor	0.75	0.75	0.96	0.96	0.90	0.90
Hourly flow rate (vph)	12	19	6	814	1658	19
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1951	838	1677			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1951	838	1677			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	78	94	98			
cM capacity (veh/h)	55	309	378			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	31	6	271	271	271	1105	571
Volume Left	12	6	0	0	0	0	0
Volume Right	19	0	0	0	0	0	19
cSH	111	378	1700	1700	1700	1700	1700
Volume to Capacity	0.28	0.02	0.16	0.16	0.16	0.65	0.34
Queue Length 95th (ft)	26	1	0	0	0	0	0
Control Delay (s)	49.6	14.7	0.0	0.0	0.0	0.0	0.0
Lane LOS	E	B					
Approach Delay (s)	49.6	0.1				0.0	
Approach LOS	E						

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		



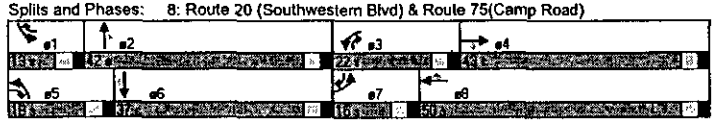
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		550	550		550	195		145	195		350
Storage Lanes	2		1	2		1	2		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			25			16			240			32
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)		50			45			45			45	
Link Distance (ft)		6123			996			1120			631	
Travel Time (s)		83.5			15.1			17.0			9.6	
Volume (vph)	239	469	310	319	876	15	499	470	297	23	808	391
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.98	0.98	0.98	0.96	0.96	0.96
Adj. Flow (vph)	260	510	337	347	952	16	509	480	303	24	842	407
Lane Group Flow (vph)	260	510	337	347	952	16	509	480	303	24	842	407
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phases	7	4	5	3	8	1	5	2	3	1	6	7
Minimum Initial (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
Minimum Split (s)	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0
Total Split (s)	15.0	43.0	18.0	22.0	50.0	13.0	18.0	42.0	22.0	13.0	37.0	15.0
Total Split (%)	12.5%	35.8%	15.0%	18.3%	41.7%	10.8%	15.0%	35.0%	18.3%	10.8%	30.8%	12.5%
Maximum Green (s)	10.0	38.0	13.0	17.0	45.0	8.0	13.0	37.0	17.0	8.0	32.0	10.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-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)	11.0	32.5	58.2	16.8	38.3	50.1	21.7	51.1	71.9	7.9	33.0	48.0
Actuated g/C Ratio	0.09	0.27	0.48	0.14	0.32	0.42	0.18	0.43	0.60	0.07	0.28	0.40
v/c Ratio	0.83	0.53	0.43	0.72	0.84	0.02	0.82	0.32	0.29	0.21	0.87	0.62
Control Delay	75.2	39.0	20.9	58.4	45.4	7.2	59.9	26.0	4.4	56.9	52.0	31.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.2	39.0	20.9	58.4	45.4	7.2	59.9	26.0	4.4	56.9	52.0	31.5
LOS	E	D	C	E	D	A	E	C	A	E	D	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		42.0			48.4			34.3			45.5	
Approach LOS		D			D			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 42.6 — Intersection LOS: D
Intersection Capacity Utilization 80.9% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 8: Route 20 (Southwestern Blvd) & Route 75(Camp Road)



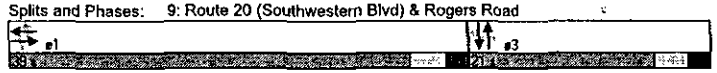
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	300		105	35		0	85		0
Storage Lanes	1		0	1		1	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50	50	50	50		50	50	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996				0.850		0.960			0.955	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3525	0	1770	3539	1583	1770	1788	0	1770	1779	0
Flt Permitted	0.172			0.331			0.631			0.631		
Satd. Flow (perm)	320	3525	0	617	3539	1583	1175	1788	0	1175	1779	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8				244		30			36	
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)		50			50			35			35	
Link Distance (ft)		1073			6123			963			918	
Travel Time (s)		14.6			83.5			18.8			17.9	
Volume (vph)	30	672	19	49	1087	222	23	109	39	138	96	41
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.87	0.87	0.87	0.81	0.81	0.81
Adj. Flow (vph)	33	738	21	54	1195	244	26	125	45	170	119	51
Lane Group Flow (vph)	33	759	0	54	1195	244	26	170	0	170	170	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1		1	3			3		
Detector Phases	1	1		1	1	1	3	3		3	3	
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	27.0	27.0		27.0	27.0	27.0	21.0	21.0		21.0	21.0	
Total Split (s)	39.0	39.0	0.0	39.0	39.0	39.0	21.0	21.0	0.0	21.0	21.0	0.0
Total Split (%)	65.0%	65.0%	0.0%	65.0%	65.0%	65.0%	35.0%	35.0%	0.0%	35.0%	35.0%	0.0%
Maximum Green (s)	34.0	34.0		34.0	34.0	34.0	16.0	16.0		16.0	16.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min	Min	None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effct Green (s)	33.6	33.6		33.6	33.6	33.6	13.0	13.0		13.0	13.0	
Actuated g/C Ratio	0.61	0.61		0.61	0.61	0.61	0.24	0.24		0.24	0.24	
v/c Ratio	0.17	0.35		0.14	0.55	0.23	0.09	0.38		0.61	0.38	
Control Delay	8.3	6.2		6.7	7.9	1.5	16.8	16.2		27.6	15.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	8.3	6.2		6.7	7.9	1.5	16.8	16.2		27.6	15.6	
LOS	A	A		A	A	A	B	B		C	B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		6.3			6.8			16.3			21.6	
Approach LOS		A			A			B			C	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 54.8
Natural Cycle: 50
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 9.1 — Intersection LOS: A
Intersection Capacity Utilization 62.5% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 9: Route 20 (Southwestern Blvd) & Rogers Road



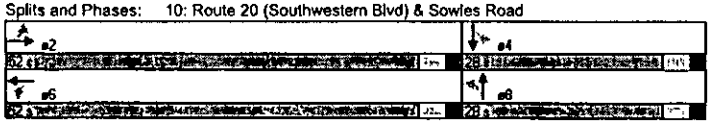
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.986			0.948			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3444	0	1770	3490	0	1770	1766	0	1770	1850	0
Flt Permitted	0.259			0.283			0.532			0.619		
Satd. Flow (perm)	482	3444	0	527	3490	0	991	1766	0	1153	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		59			24			34			3	
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)		45			45			35			35	
Link Distance (ft)		996			2741			815			936	
Travel Time (s)		15.1			41.5			15.9			18.2	
Volume (vph)	12	656	144	19	796	81	147	89	47	57	161	8
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.86	0.86	0.86	0.79	0.79	0.79
Adj. Flow (vph)	13	705	155	20	838	85	171	103	55	72	204	10
Lane Group Flow (vph)	13	860	0	20	923	0	171	158	0	72	214	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		21.0	21.0		21.0	21.0	
Total Split (s)	52.0	52.0	0.0	52.0	52.0	0.0	28.0	28.0	0.0	28.0	28.0	0.0
Total Split (%)	65.0%	65.0%	0.0%	65.0%	65.0%	0.0%	35.0%	35.0%	0.0%	35.0%	35.0%	0.0%
Maximum Green (s)	47.0	47.0		47.0	47.0		23.0	23.0		23.0	23.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	53.4	53.4		53.4	53.4		18.6	18.6		18.6	18.6	
Actuated g/C Ratio	0.67	0.67		0.67	0.67		0.23	0.23		0.23	0.23	
v/c Ratio	0.04	0.37		0.06	0.39		0.74	0.36		0.27	0.50	
Control Delay	6.8	6.7		6.7	7.2		47.1	21.0		25.7	29.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	6.8	6.7		6.7	7.2		47.1	21.0		25.7	29.2	
LOS	A	A		A	A		D	C		C	C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		6.7			7.1			34.6			28.3	
Approach LOS		A			A			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 53 (66%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 13.2 — Intersection LOS: B
Intersection Capacity Utilization 51.7% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 10: Route 20 (Southwestern Blvd) & Sowles Road



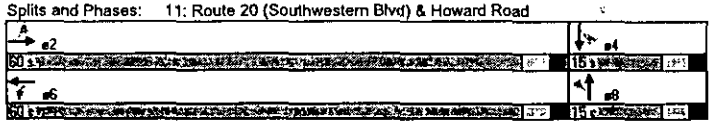
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	100		0
Storage Lanes	1		0	1		0	0		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.979						0.850	
Flt Protected	0.950			0.950				0.950		0.950		
Satd. Flow (prot)	1770	3539	0	1770	3465	0	0	1770	0	1770	1583	0
Flt Permitted	0.255			0.359				0.714		0.755		
Satd. Flow (perm)	475	3539	0	669	3465	0	0	1330	0	1406	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					69						230	
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)		45			45			30			30	
Link Distance (ft)		2741			732			192			400	
Travel Time (s)		41.5			11.1			4.4			9.1	
Volume (vph)	59	697	0	2	802	131	1	0	0	106	0	58
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.25	0.25	0.25	0.88	0.88	0.88
Adj. Flow (vph)	63	749	0	2	891	146	4	0	0	120	0	66
Lane Group Flow (vph)	63	749	0	2	1037	0	0	4	0	120	66	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	60.0	60.0	0.0	60.0	60.0	0.0	15.0	15.0	0.0	15.0	15.0	0.0
Total Split (%)	80.0%	80.0%	0.0%	80.0%	80.0%	0.0%	20.0%	20.0%	0.0%	20.0%	20.0%	0.0%
Maximum Green (s)	55.0	55.0		55.0	55.0		10.0	10.0		10.0	10.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	69.6	69.6		69.6	69.6			10.8		11.0	11.0	
Actuated g/C Ratio	0.81	0.81		0.81	0.81			0.12		0.12	0.12	
v/c Ratio	0.16	0.26		0.00	0.37			0.02		0.69	0.17	
Control Delay	3.8	2.8		2.5	3.1			28.0		51.1	0.9	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	3.8	2.8		2.5	3.1			28.0		51.1	0.9	
LOS	A	A		A	A			C		D	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		2.9			3.1			28.0			33.3	
Approach LOS		A			A			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 86.4
Natural Cycle: 45
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 5.8 — Intersection LOS: A
Intersection Capacity Utilization 45.2% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 11: Route 20 (Southwestern Blvd) & Howard Road



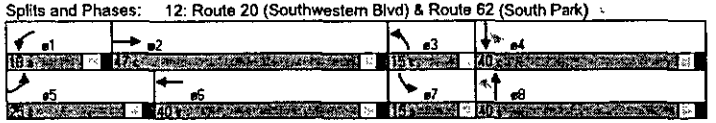
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	250		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.987			0.991			0.965			0.959	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3493	0	1770	3507	0	1770	3415	0	1770	3394	0
Flt Permitted	0.950			0.950			0.111			0.215		
Satd. Flow (perm)	1770	3493	0	1770	3507	0	207	3415	0	400	3394	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			6			34			45	
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)		45			45			45			45	
Link Distance (ft)		1014			518			1425			754	
Travel Time (s)		15.4			7.8			21.6			11.4	
Volume (vph)	196	613	58	139	652	43	85	447	137	45	602	224
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.87	0.87	0.87	0.91	0.91	0.91
Adj. Flow (vph)	211	659	62	149	701	46	98	514	157	49	662	246
Lane Group Flow (vph)	211	721	0	149	747	0	98	671	0	49	908	0
Turn Type	Prot			Prot			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8			4		
Detector Phases	5	2		1	6		3	8		7	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	15.0	38.0		18.0	38.0		9.0	37.0		9.0	37.0	
Total Split (s)	25.0	47.0	0.0	18.0	40.0	0.0	15.0	40.0	0.0	15.0	40.0	0.0
Total Split (%)	20.8%	39.2%	0.0%	15.0%	33.3%	0.0%	12.5%	33.3%	0.0%	12.5%	33.3%	0.0%
Maximum Green (s)	*20.0*	*42.0*		*13.0*	*35.0*		*12.0*	*35.0*		*12.0*	*35.0*	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	2.0		0.0	2.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		Min	Min		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)	16.6	30.9		12.5	26.8		39.3	31.5		36.5	30.1	
Actuated g/C Ratio	0.17	0.31		0.13	0.27		0.40	0.32		0.37	0.31	
v/c Ratio	0.71	0.65		0.66	0.78		0.48	0.60		0.21	0.85	
Control Delay	55.9	32.2		61.0	40.2		27.4	30.3		21.4	40.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	55.9	32.2		61.0	40.2		27.4	30.3		21.4	40.4	
LOS	E	C		E	D		C	C		C	D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		37.6			43.7			30.0			39.5	
Approach LOS		D			D			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 98.4
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 38.0 Intersection LOS: D
Intersection Capacity Utilization 72.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 12: Route 20 (Southwestern Blvd) & Route 62 (South Park)



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	9	60	48	859	1128	17
Peak Hour Factor	0.85	0.85	0.84	0.84	0.90	0.90
Hourly flow rate (vph)	11	71	57	1023	1253	19
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				1100	745	
pX, platoon unblocked	0.90	0.88	0.88			
vC, conflicting volume	1888	636	1272			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1742	458	1177			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	83	85	89			
cM capacity (veh/h)	63	486	521			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	81	398	682	836	437
Volume Left	11	57	0	0	0
Volume Right	71	0	0	0	19
cSH	258	521	1700	1700	1700
Volume to Capacity	0.31	0.11	0.40	0.49	0.26
Queue Length 95th (ft)	32	9	0	0	0
Control Delay (s)	25.2	3.3	0.0	0.0	0.0
Lane LOS	D	A			
Approach Delay (s)	25.2	1.2		0.0	
Approach LOS	D				

Intersection Summary

Average Delay 1.4
Intersection Capacity Utilization 70.4% ICU Level of Service C
Analysis Period (min) 15



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↰	↑↑		↰	↑↑	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	3	0	6	10	0	19	11	852	10	2	1112	3
Peak Hour Factor	0.65	0.65	0.65	0.77	0.77	0.77	0.98	0.98	0.98	0.95	0.95	0.95
Hourly flow rate (vph)	5	0	9	13	0	25	11	869	10	2	1171	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								455				
pX, platoon unblocked	0.94	0.94		0.94	0.94	0.94				0.94		
vC, conflicting volume	1658	2078	587	1496	2075	440	1174			880		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1636	2083	587	1464	2080	341	1174			808		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	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 %	92	100	98	84	100	96	98			100		
cM capacity (veh/h)	59	48	453	81	49	616	591			764		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	14	38	11	580	300	2	780	393
Volume Left	5	13	11	0	0	2	0	0
Volume Right	9	25	0	0	10	0	0	3
cSH	141	188	591	1700	1700	764	1700	1700
Volume to Capacity	0.10	0.20	0.02	0.34	0.18	0.00	0.46	0.23
Queue Length 95th (ft)	8	18	1	0	0	0	0	0
Control Delay (s)	33.4	28.8	11.2	0.0	0.0	9.7	0.0	0.0
Lane LOS	D	D	B			A		
Approach Delay (s)	33.4	28.8	0.1			0.0		
Approach LOS	D	D						

Intersection Summary				
Average Delay	0.8			
Intersection Capacity Utilization	40.8%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			↑↑		↰	↑↑
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	13	11	1357	19	14	1432
Peak Hour Factor	0.63	0.63	0.96	0.96	0.91	0.91
Hourly flow rate (vph)	21	17	1414	20	15	1574
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2241	717			1433	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2241	717			1433	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	40	95			97	
cM capacity (veh/h)	35	372			470	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	38	942	491	15	787	787
Volume Left	21	0	0	15	0	0
Volume Right	17	0	20	0	0	0
cSH	59	1700	1700	470	1700	1700
Volume to Capacity	0.64	0.55	0.29	0.03	0.46	0.46
Queue Length 95th (ft)	67	0	0	3	0	0
Control Delay (s)	141.0	0.0	0.0	12.9	0.0	0.0
Lane LOS	F			B		
Approach Delay (s)	141.0	0.0		0.1		
Approach LOS	F					

Intersection Summary				
Average Delay	1.8			
Intersection Capacity Utilization	49.6%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	23	26	1350	41	23	1427
Peak Hour Factor	0.70	0.70	0.94	0.94	0.89	0.89
Hourly flow rate (vph)	33	37	1436	44	26	1603
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						1062
pX, platoon unblocked	0.78					
vC, conflicting volume	2311	740			1480	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2401	740			1480	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	90			94	
cM capacity (veh/h)	20	359			451	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	70	957	522	26	802	802
Volume Left	33	0	0	26	0	0
Volume Right	37	0	44	0	0	0
cSH	41	1700	1700	451	1700	1700
Volume to Capacity	1.72	0.56	0.31	0.06	0.47	0.47
Queue Length 95th (ft)	182	0	0	5	0	0
Control Delay (s)	565.3	0.0	0.0	13.5	0.0	0.0
Lane LOS	F			B		
Approach Delay (s)	565.3	0.0		0.2		
Approach LOS	F					

Intersection Summary			
Average Delay	12.6		
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		

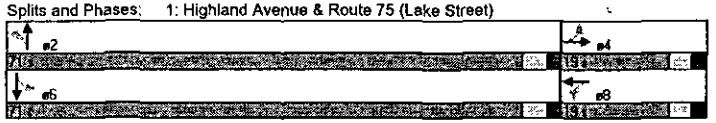
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		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		0.925			0.857			0.993			0.995	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1723	0	1770	1596	0	1770	1850	0	1770	1853	0
Flt Permitted	0.654			0.754			0.391			0.260		
Satd. Flow (perm)	1218	1723	0	1405	1596	0	728	1850	0	484	1853	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			102			8			5	
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			30			30	
Link Distance (ft)		200			370			446			287	
Travel Time (s)		4.5			8.4			10.1			6.5	
Volume (vph)	11	2	2	31	4	83	3	698	34	53	548	18
Peak Hour Factor	0.58	0.58	0.58	0.81	0.81	0.81	0.86	0.86	0.86	0.95	0.95	0.95
Adj. Flow (vph)	19	3	3	38	5	102	3	812	40	56	577	19
Lane Group Flow (vph)	19	6	0	38	107	0	3	852	0	56	596	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	22.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	19.0	19.0	0.0	19.0	19.0	0.0	71.0	71.0	0.0	71.0	71.0	0.0
Total Split (%)	21.1%	21.1%	0.0%	21.1%	21.1%	0.0%	78.9%	78.9%	0.0%	78.9%	78.9%	0.0%
Maximum Green (s)	14.0	14.0		14.0	14.0		66.0	66.0		66.0	66.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	9.3	9.3		9.3	9.3		80.2	80.2		80.2	80.2	
Actuated g/C Ratio	0.10	0.10		0.10	0.10		0.84	0.84		0.84	0.84	
v/c Ratio	0.16	0.04		0.28	0.44		0.00	0.55		0.14	0.38	
Control Delay	37.0	27.0		39.7	14.0		2.0	4.6		3.0	3.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	37.0	27.0		39.7	14.0		2.0	4.6		3.0	3.2	
LOS	D	C		D	B		A	A		A	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		34.6			20.7			4.5			3.2	
Approach LOS		C			C			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 95.2
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.55
Intersection Signal Delay: 5.8 Intersection LOS: A
Intersection Capacity Utilization 59.1% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Highland Avenue & Route 75 (Lake Street)



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	250		0	250	
Storage Lanes	1	1		0	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
Trailing Detector (ft)	0	0	0		0	0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		*0.850*	*0.961*			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3401	0	1770	3539
Flt Permitted	0.950				0.221	
Satd. Flow (perm)	1770	1583	3401	0	412	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		184	86			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	35		40			40
Link Distance (ft)	760		863			689
Travel Time (s)	14.8		14.7			11.7
Volume (vph)	186	280	541	190	248	496
Peak Hour Factor	0.95	0.95	0.88	0.88	0.93	0.93
Adj. Flow (vph)	196	295	615	216	267	533
Lane Group Flow (vph)	196	295	831	0	267	533
Turn Type		pm+ov			pm+pt	
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phases	8	1	2		1	6
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	21.0	9.0	28.0		9.0	28.0
Total Split (s)	25.0	12.0	38.0	0.0	12.0	50.0
Total Split (%)	33.3%	16.0%	50.7%	0.0%	16.0%	66.7%
Maximum Green (s)	20.0	9.0	33.0		9.0	45.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	0.0	2.0		0.0	2.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	*None*	*None*	*Min*		*None*	*Min*
Walk Time (s)	5.0		5.0			5.0
Flash Dont Walk (s)	11.0		11.0			11.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	11.7	19.7	19.5		31.3	32.7
Actuated g/C Ratio	0.23	0.41	0.41		0.65	0.68
v/c Ratio	0.47	0.39	0.58		0.56	0.22
Control Delay	*21.9*	*5.7*	*13.1*		*10.4*	*5.0*
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	21.9	5.7	13.1		10.4	5.0
LOS	C	A	B		B	A

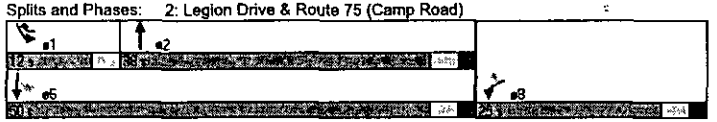


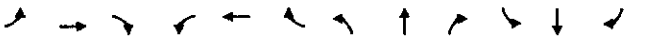
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach Delay	12.2		13.1			6.8
Approach LOS	B		B			A

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 48.1
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 10.5 — Intersection LOS: B
Intersection Capacity Utilization 55.1% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: Legion Drive & Route 75 (Camp Road)





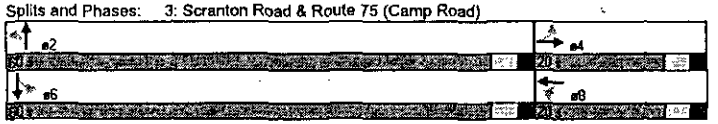
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	275		0	0		0	300		0
Storage Lanes	0		0	1		0	0		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		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	0.95	0.95	0.95	1.00	0.95	0.95
Frt		0.916			0.851			0.984				
Flt Protected		0.982			0.950						0.950	
Satd. Flow (prot)	0	1676	0	1770	1585	0	0	3483	0	1770	3539	0
Flt Permitted		0.918			0.752			0.955			0.329	
Satd. Flow (perm)	0	1568	0	1401	1585	0	0	3326	0	613	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			142			37				
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)		35			35			40			40	
Link Distance (ft)		92			373			1152			1898	
Travel Time (s)		1.8			7.3			19.6			32.4	
Volume (vph)	1	0	2	108	1	125	1	693	81	126	571	1
Peak Hour Factor	0.38	0.38	0.38	0.88	0.88	0.88	0.97	0.97	0.97	0.95	0.95	0.95
Adj. Flow (vph)	3	0	5	123	1	142	1	714	84	133	601	1
Lane Group Flow (vph)	0	8	0	123	143	0	0	799	0	133	602	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		57.0	57.0		21.0	21.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	60.0	60.0	0.0	60.0	60.0	0.0
Total Split (%)	25.0%	25.0%	0.0%	25.0%	25.0%	0.0%	75.0%	75.0%	0.0%	75.0%	75.0%	0.0%
Maximum Green (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		12.4			12.5	12.5		32.0			32.0	32.0
Actuated g/C Ratio		0.23			0.23	0.23		0.61			0.61	0.61
v/c Ratio		0.02			0.38	0.30		0.39			0.36	0.28
Control Delay		9.7			15.3	5.0		5.7			9.0	5.2
Queue Delay		0.0			0.0	0.0		0.0			0.0	0.0
Total Delay		9.7			15.3	5.0		5.7			9.0	5.2
LOS		A			B	A		A			A	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		9.7			9.7			5.7			5.9	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 52.4
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.39
Intersection Signal Delay: 6.4 Intersection LOS: A
Intersection Capacity Utilization 60.2% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Scranton Road & Route 75 (Camp Road)



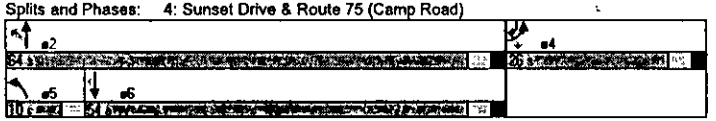
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	200			400
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		*0.850*				*0.850*
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.348			
Satd. Flow (perm)	1770	1583	648	3539	3539	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		52				154
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			40	40	
Link Distance (ft)	1822			1898	1224	
Travel Time (s)	*41.4*			*32.4*	*20.9*	
Volume (vph)	207	68	80	695	615	152
Peak Hour Factor	0.95	0.95	0.98	0.98	0.99	0.99
Adj. Flow (vph)	218	72	82	709	621	154
Lane Group Flow (vph)	218	72	82	709	621	154
Turn Type		Perm	pm+pt			pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	4
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)	26.0	26.0	10.0	64.0	54.0	26.0
Total Split (%)	28.9%	28.9%	11.1%	71.1%	60.0%	28.9%
Maximum Green (s)	21.0	21.0	7.0	59.0	49.0	21.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0	2.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	Max	Max	None
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)	16.4	16.4	61.2	61.2	53.5	74.7
Actuated g/C Ratio	*0.19*	*0.19*	*0.70*	*0.71*	*0.62*	*0.87*
v/c Ratio	0.64	0.21	0.16	0.28	0.28	0.11
Control Delay	40.4	13.5	5.2	5.1	8.8	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.4	13.5	5.2	5.1	8.8	0.4
LOS	D	B	A	A	A	A

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	33.7			5.1	7.1	
Approach LOS	C			A	A	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 85.6
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 10.4 — Intersection LOS: B
Intersection Capacity Utilization 42.9% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 4: Sunset Drive & Route 75 (Camp Road)



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	16	18	5	742	812	16
Peak Hour Factor	0.73	0.73	0.96	0.96	0.94	0.94
Hourly flow rate (vph)	22	25	5	773	864	17
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1140	440	881			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1140	440	881			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	89	96	99			
cM capacity (veh/h)	193	564	763			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	47	5	258	258	258	576	305
Volume Left	22	5	0	0	0	0	0
Volume Right	25	0	0	0	0	0	17
cSH	296	763	1700	1700	1700	1700	1700
Volume to Capacity	0.16	0.01	0.15	0.15	0.15	0.34	0.18
Queue Length 95th (ft)	14	1	0	0	0	0	0
Control Delay (s)	19.4	9.7	0.0	0.0	0.0	0.0	0.0
Lane LOS	C	A					
Approach Delay (s)	19.4	0.1			0.0		
Approach LOS	C						

Intersection Summary

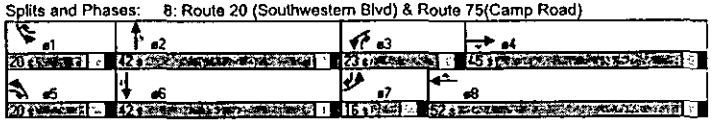
Average Delay 0.6
Intersection Capacity Utilization 33.0% — ICU Level of Service A
Analysis Period (min) 15

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		550	550		550	195		145	195		350
Storage Lanes	2		1	2		1	2		1	1		1
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	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			215			38			264			71
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)		50			45			45			45	
Link Distance (ft)		6123			996			1120			631	
Travel Time (s)		83.5			15.1			17.0			9.6	
Volume (vph)	256	567	345	292	652	36	405	391	331	34	303	258
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.94	0.94	0.94	0.96	0.96	0.96
Adj. Flow (vph)	281	623	379	307	686	38	431	416	352	35	316	269
Lane Group Flow (vph)	281	623	379	307	686	38	431	416	352	35	316	269
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phases	7	4	5	3	8	1	5	2	3	1	6	7
Minimum Initial (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
Minimum Split (s)	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0
Total Split (s)	16.0	45.0	20.0	23.0	52.0	20.0	20.0	42.0	23.0	20.0	42.0	16.0
Total Split (%)	12.3%	34.6%	15.4%	17.7%	40.0%	15.4%	15.4%	32.3%	17.7%	15.4%	32.3%	12.3%
Maximum Green (s)	11.0	40.0	15.0	18.0	47.0	15.0	15.0	37.0	18.0	15.0	37.0	11.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None	C-Max	None	None	C-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)	12.0	28.2	57.4	17.2	33.4	46.4	25.2	61.7	82.9	9.0	43.4	59.4
Actuated g/C Ratio	0.09	0.22	0.44	0.13	0.26	0.36	0.19	0.47	0.64	0.07	0.33	0.46
v/c Ratio	0.89	0.81	0.46	0.68	0.75	0.06	0.65	0.25	0.32	0.29	0.27	0.35
Control Delay	86.8	56.9	11.7	61.5	49.6	6.7	53.8	23.1	4.3	62.7	33.8	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.8	56.9	11.7	61.5	49.6	6.7	53.8	23.1	4.3	62.7	33.8	19.2
LOS	F	E	B	E	D	A	D	C	A	E	C	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		50.1			51.5			28.6			29.1	
Approach LOS		D			D			C			C	

Intersection Summary	
Area Type:	Other
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 41.1	Intersection LOS: D
Intersection Capacity Utilization 58.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 8: Route 20 (Southwestern Blvd) & Route 75(Camp Road)



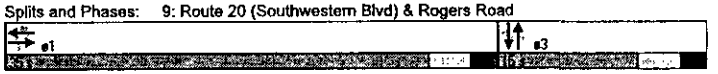
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	300		105	35		0	85		0
Storage Lanes	1		0	1		1	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50	50	50	50		50	50	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997				0.850			0.940			0.961
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3529	0	1770	3539	1583	1770	1751	0	1770	1790	0
Flt Permitted	0.364			0.352			0.657			0.660		
Satd. Flow (perm)	678	3529	0	656	3539	1583	1224	1751	0	1229	1790	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7				159		61			32	
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)		50			50			35			35	
Link Distance (ft)		1073			6123			963			918	
Travel Time (s)		14.6			83.5			18.8			17.9	
Volume (vph)	43	726	15	52	723	159	16	83	55	149	108	38
Peak Hour Factor	0.99	0.99	0.99	1.00	1.00	1.00	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	43	733	15	52	723	159	18	92	61	162	117	41
Lane Group Flow (vph)	43	748	0	52	723	159	18	153	0	162	158	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1		1	3			3		
Detector Phases	1	1		1	1	1	3	3		3	3	
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	27.0	27.0		27.0	27.0	27.0	21.0	21.0		21.0	21.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	35.0	15.0	15.0	0.0	15.0	15.0	0.0
Total Split (%)	70.0%	70.0%	0.0%	70.0%	70.0%	70.0%	30.0%	30.0%	0.0%	30.0%	30.0%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0	30.0	10.0	10.0		10.0	10.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min	Min	None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effct Green (s)	25.1	25.1		25.1	25.1	25.1	10.4	10.4		10.4	10.4	
Actuated g/C Ratio	0.57	0.57		0.57	0.57	0.57	0.24	0.24		0.24	0.24	
v/c Ratio	0.11	0.37		0.14	0.36	0.16	0.06	0.33		0.55	0.35	
Control Delay	5.2	5.6		5.5	5.6	1.4	14.4	11.2		23.6	13.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	5.2	5.6		5.5	5.6	1.4	14.4	11.2		23.6	13.5	
LOS	A	A		A	A	A	B	B		C	B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		5.6			4.9			11.6			18.7	
Approach LOS		A			A			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 50
Actuated Cycle Length: 43.8
Natural Cycle: 50
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay: 7.6 — Intersection LOS: A
Intersection Capacity Utilization 53.2% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Route 20 (Southwestern Blvd) & Rogers Road

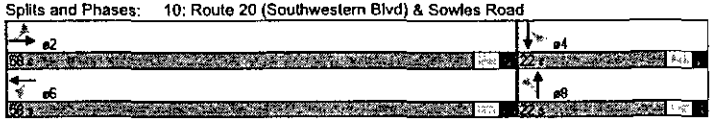


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.989			0.954			0.960	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3444	0	1770	3500	0	1770	1777	0	1770	1788	0
Flt Permitted	0.351			0.288			0.692			0.668		
Satd. Flow (perm)	654	3444	0	536	3500	0	1289	1777	0	1244	1788	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		71			21			25			21	
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)		45			45			35			35	
Link Distance (ft)		996			2741			815			936	
Travel Time (s)		15.1			41.5			15.9			18.2	
Volume (vph)	22	690	149	13	628	48	144	69	30	33	67	25
Peak Hour Factor	0.94	0.94	0.94	0.92	0.92	0.92	0.84	0.84	0.84	0.91	0.91	0.91
Adj. Flow (vph)	23	734	159	14	683	52	171	82	36	36	74	27
Lane Group Flow (vph)	23	893	0	14	735	0	171	118	0	36	101	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		21.0	21.0		21.0	21.0	
Total Split (s)	58.0	58.0	0.0	58.0	58.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0
Total Split (%)	72.5%	72.5%	0.0%	72.5%	72.5%	0.0%	27.5%	27.5%	0.0%	27.5%	27.5%	0.0%
Maximum Green (s)	53.0	53.0		53.0	53.0		17.0	17.0		17.0	17.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	56.8	56.8		56.8	56.8		15.2	15.2		15.2	15.2	
Actuated g/C Ratio	0.71	0.71		0.71	0.71		0.19	0.19		0.19	0.19	
v/c Ratio	0.05	0.36		0.04	0.30		0.70	0.33		0.15	0.28	
Control Delay	4.6	4.9		4.6	4.8		45.3	23.5		27.2	23.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	4.6	4.9		4.6	4.8		45.3	23.5		27.2	23.2	
LOS	A	A		A	A		D	C		C	C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		4.9			4.8			36.4			24.3	
Approach LOS		A			A			D			C	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 53 (66%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 10.5	Intersection LOS: B
Intersection Capacity Utilization 45.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 10: Route 20 (Southwestern Blvd) & Sowles Road



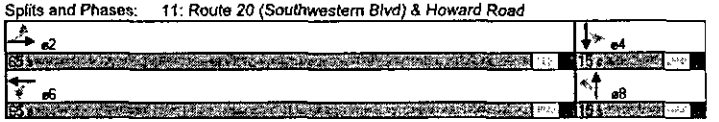
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	100		0
Storage Lanes	1		0	1		0	0		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.982						0.850	
Flt Protected	0.950							0.950		0.950		
Satd. Flow (prot)	1770	3539	0	1863	3476	0	0	1770	0	1770	1583	0
Flt Permitted	0.311							0.720		0.755		
Satd. Flow (perm)	579	3539	0	1863	3476	0	0	1341	0	1406	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					57						295	
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)		45			45			30			30	
Link Distance (ft)		2741			732			192			400	
Travel Time (s)		41.5			11.1			4.4			9.1	
Volume (vph)	49	789	1	0	706	98	1	0	0	104	0	46
Peak Hour Factor	0.89	0.89	0.89	0.92	0.92	0.92	0.25	0.25	0.25	0.81	0.81	0.81
Adj. Flow (vph)	55	887	1	0	767	107	4	0	0	128	0	57
Lane Group Flow (vph)	55	888	0	0	874	0	0	4	0	128	57	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	65.0	65.0	0.0	65.0	65.0	0.0	15.0	15.0	0.0	15.0	15.0	0.0
Total Split (%)	81.3%	81.3%	0.0%	81.3%	81.3%	0.0%	18.8%	18.8%	0.0%	18.8%	18.8%	0.0%
Maximum Green (s)	60.0	60.0		60.0	60.0		10.0	10.0		10.0	10.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	71.3	71.3			71.3			10.9		10.9	10.9	
Actuated g/C Ratio	0.79	0.79			0.79			0.12		0.12	0.12	
v/c Ratio	0.12	0.32			0.32			0.02		0.75	0.13	
Control Delay	3.1	3.1			2.9			30.0		61.0	0.6	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	3.1	3.1			2.9			30.0		61.0	0.6	
LOS	A	A			A			C		E	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		3.1			2.9			30.0			42.4	
Approach LOS		A			A			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 90.4
Natural Cycle: 45
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 6.7 Intersection LOS: A
Intersection Capacity Utilization 41.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 11: Route 20 (Southwestern Blvd) & Howard Road

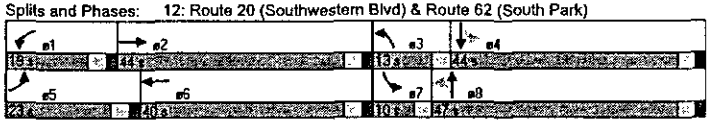


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	250		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.983			0.991			0.960			0.956	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3479	0	1770	3507	0	1770	3398	0	1770	3383	0
Flt Permitted	0.950			0.950			0.263			0.293		
Satd. Flow (perm)	1770	3479	0	1770	3507	0	490	3398	0	545	3383	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			6			48			55	
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)		45			45			45			45	
Link Distance (ft)		1014			518			1425			754	
Travel Time (s)		15.4			7.8			21.6			11.4	
Volume (vph)	144	714	93	107	620	41	64	420	152	54	400	164
Peak Hour Factor	0.88	0.88	0.88	0.94	0.94	0.94	0.88	0.88	0.88	0.93	0.93	0.93
Adj. Flow (vph)	164	811	106	114	660	44	73	477	173	58	430	176
Lane Group Flow (vph)	164	917	0	114	704	0	73	650	0	58	606	0
Turn Type	Prot			Prot			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8			4		
Detector Phases	5	2		1	6		3	8		7	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	15.0	38.0		16.0	38.0		9.0	37.0		9.0	37.0	
Total Split (s)	23.0	44.0	0.0	19.0	40.0	0.0	13.0	47.0	0.0	10.0	44.0	0.0
Total Split (%)	19.2%	36.7%	0.0%	15.8%	33.3%	0.0%	10.8%	39.2%	0.0%	8.3%	36.7%	0.0%
Maximum Green (s)	18.0	39.0		14.0	35.0		10.0	42.0		7.0	39.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	2.0		0.0	2.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		Min	Min		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)	13.5	28.0		11.3	25.8		28.4	21.6		26.3	20.6	
Actuated g/C Ratio	0.16	0.33		0.13	0.31		0.34	0.26		0.31	0.25	
v/c Ratio	0.57	0.78		0.48	0.65		0.27	0.71		0.23	0.69	
Control Delay	44.8	30.9		45.8	29.2		22.2	31.8		21.9	32.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	44.8	30.9		45.8	29.2		22.2	31.8		21.9	32.0	
LOS	D	C		D	C		C	C		C	C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		33.0			31.5			30.8			31.1	
Approach LOS		C			C			C			C	

Intersection Summary	
Area Type:	*Other*
Cycle Length: 120	
Actuated Cycle Length: 83.8	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 31.8	Intersection LOS: C
Intersection Capacity Utilization 61.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Route 20 (Southwestern Blvd) & Route 62 (South Park)



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	11	43	45	807	674	32
Peak Hour Factor	0.54	0.54	0.96	0.96	0.93	0.93
Hourly flow rate (vph)	20	80	47	841	725	34
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				1100	745	
pX, platoon unblocked	1.00	1.00	1.00			
vC, conflicting volume	1256	380	759			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1255	378	758			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	87	87	94			
cM capacity (veh/h)	154	619	848			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	100	327	560	483	276
Volume Left	20	47	0	0	0
Volume Right	80	0	0	0	34
cSH	384	848	1700	1700	1700
Volume to Capacity	0.26	0.06	0.33	0.28	0.16
Queue Length 95th (ft)	26	4	0	0	0
Control Delay (s)	17.7	1.9	0.0	0.0	0.0
Lane LOS	C	A			
Approach Delay (s)	17.7	0.7		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	3	0	17	20	0	17	14	818	3	6	679	0
Peak Hour Factor	0.67	0.67	0.67	0.72	0.72	0.72	0.85	0.85	0.85	0.87	0.87	0.87
Hourly flow rate (vph)	4	0	25	28	0	24	16	962	4	7	780	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								455				
pX, platoon unblocked	0.93	0.93		0.93	0.93	0.93				0.93		
vC, conflicting volume	1332	1793	390	1426	1791	483	780			966		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1280	1777	390	1382	1775	365	780			886		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	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 %	96	100	96	69	100	96	98			99		
cM capacity (veh/h)	107	74	608	90	74	586	833			705		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	30	51	16	642	324	7	520	260
Volume Left	4	28	16	0	0	7	0	0
Volume Right	25	24	0	0	4	0	0	0
cSH	357	147	833	1700	1700	705	1700	1700
Volume to Capacity	0.08	0.35	0.02	0.38	0.19	0.01	0.31	0.15
Queue Length 95th (ft)	7	36	2	0	0	1	0	0
Control Delay (s)	16.0	42.2	9.4	0.0	0.0	10.2	0.0	0.0
Lane LOS	C	E	A			B		
Approach Delay (s)	16.0	42.2	0.2			0.1		
Approach LOS	C	E						

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	10	4	1176	40	10	992
Peak Hour Factor	0.54	0.54	0.90	0.90	0.91	0.91
Hourly flow rate (vph)	19	7	1307	44	11	1090
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1896	676			1351	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1896	676			1351	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	69	98			98	
cM capacity (veh/h)	60	396			505	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	26	871	480	11	545	545
Volume Left	19	0	0	11	0	0
Volume Right	7	0	44	0	0	0
cSH	79	1700	1700	505	1700	1700
Volume to Capacity	0.33	0.51	0.28	0.02	0.32	0.32
Queue Length 95th (ft)	31	0	0	2	0	0
Control Delay (s)	71.2	0.0	0.0	12.3	0.0	0.0
Lane LOS	F			B		
Approach Delay (s)	71.2	0.0		0.1		
Approach LOS	F					

Intersection Summary				
Average Delay	0.8			
Intersection Capacity Utilization	43.8%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	18	23	1177	28	20	950
Peak Hour Factor	0.95	0.95	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	19	24	1293	31	22	1044
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						1062
pX, platoon unblocked	0.96					
vC, conflicting volume	1875	662			1324	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1869	662			1324	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	68	94			96	
cM capacity (veh/h)	59	404			518	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	43	862	462	22	522	522
Volume Left	19	0	0	22	0	0
Volume Right	24	0	31	0	0	0
cSH	113	1700	1700	518	1700	1700
Volume to Capacity	0.38	0.51	0.27	0.04	0.31	0.31
Queue Length 95th (ft)	39	0	0	3	0	0
Control Delay (s)	55.5	0.0	0.0	12.3	0.0	0.0
Lane LOS	F			B		
Approach Delay (s)	55.5	0.0		0.3		
Approach LOS	F					

Intersection Summary				
Average Delay	1.1			
Intersection Capacity Utilization	43.4%	ICU Level of Service		A
Analysis Period (min)	15			

A6

Level of Service Calculations: Full Development Conditions

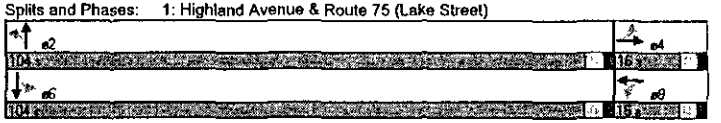
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		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		0.965			0.869			0.994			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1798	0	1770	1619	0	1770	1852	0	1770	1852	0
Flt Permitted	0.469			0.749			0.159			0.319		
Satd. Flow (perm)	874	1798	0	1395	1619	0	296	1852	0	594	1852	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			105			7			7	
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			30			30	
Link Distance (ft)		200			370			446			287	
Travel Time (s)		4.5			8.4			10.1			6.5	
Volume (vph)	26	6	2	39	12	85	6	672	26	114	1029	40
Peak Hour Factor	0.62	0.62	0.62	0.81	0.81	0.81	0.87	0.87	0.87	0.89	0.89	0.89
Adj. Flow (vph)	42	10	3	48	15	105	7	772	30	128	1156	45
Lane Group Flow (vph)	42	13	0	48	120	0	7	802	0	128	1201	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	22.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	16.0	16.0	0.0	16.0	16.0	0.0	104.0	104.0	0.0	104.0	104.0	0.0
Total Split (%)	13.3%	13.3%	0.0%	13.3%	13.3%	0.0%	86.7%	86.7%	0.0%	86.7%	86.7%	0.0%
Maximum Green (s)	11.0	11.0		11.0	11.0		99.0	99.0		99.0	99.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
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)	10.4	10.4		10.4	10.4		100.0	100.0		100.0	100.0	
Actuated g/C Ratio	0.09	0.09		0.09	0.09		0.84	0.84		0.84	0.84	
v/c Ratio	0.55	0.08		0.39	0.51		0.03	0.51		0.25	0.77	
Control Delay	78.2	42.6		60.5	20.6		2.0	3.9		3.4	8.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	78.2	42.6		60.5	20.6		2.0	3.9		3.4	8.5	
LOS	E	D		E	C		A	A		A	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		69.8			32.0			3.9			8.0	
Approach LOS		E			C			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 118.4
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 9.7 — Intersection LOS: A
Intersection Capacity Utilization 78.7% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: Highland Avenue & Route 75 (Lake Street)



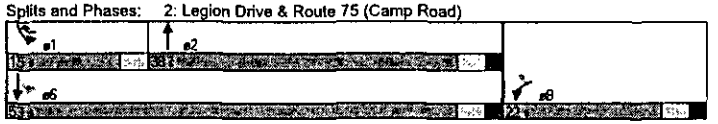
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	250		0	250	
Storage Lanes	1	1		0	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50
Trailing Detector (ft)	0	0	0		0	0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.974			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3447	0	1770	3539
Flt Permitted	0.950				0.196	
Satd. Flow (perm)	1770	1583	3447	0	365	3539
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)		127	44			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	35		40			40
Link Distance (ft)	760		863			689
Travel Time (s)	14.8		14.7			11.7
Volume (vph)	249	382	702	150	387	1077
Peak Hour Factor	0.84	0.84	0.95	0.95	0.93	0.93
Adj. Flow (vph)	296	455	739	158	416	1158
Lane Group Flow (vph)	296	455	897	0	416	1158
Turn Type		pm+ov			pm+pt	
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phases	8	1	2		1	6
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	21.0	9.0	28.0		9.0	28.0
Total Split (s)	22.0	15.0	38.0	0.0	15.0	53.0
Total Split (%)	29.3%	20.0%	50.7%	0.0%	20.0%	70.7%
Maximum Green (s)	17.0	12.0	33.0		12.0	48.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	0.0	2.0		0.0	2.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	5.0		5.0			5.0
Flash Dont Walk (s)	11.0		11.0			11.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	14.8	30.2	21.8		37.1	37.1
Actuated g/C Ratio	0.25	0.50	0.36		0.62	0.62
v/c Ratio	0.68	0.53	0.70		0.86	0.53
Control Delay	30.8	11.0	18.9		31.1	7.8
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	30.8	11.0	18.9		31.1	7.8
LOS	C	B	B		C	A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach Delay	18.8		18.9		14.0	
Approach LOS	B		B		B	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 60.2
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 16.5 — Intersection LOS: B
Intersection Capacity Utilization 69.4% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Legion Drive & Route 75 (Camp Road)



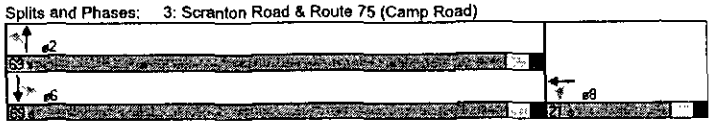
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	*0*		*0*	275		*0*	*0*		*0*	300		*0*
Storage Lanes	0		0	1		0	0		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	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	0.95	0.95	0.95	1.00	0.95	0.95
Frt					0.850			0.982				
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	0	0	1770	1583	0	0	3476	0	1770	3539	0
Flt Permitted				0.950						0.244		
Satd. Flow (perm)	0	0	0	1770	1583	0	0	3476	0	455	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					204			41				
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)		35			35			40			40	
Link Distance (ft)		92			373			1152			1898	
Travel Time (s)		1.8			7.3			19.6			32.4	
Volume (vph)	0	0	0	129	0	202	0	860	114	217	1163	0
Peak Hour Factor	0.25	0.25	0.25	0.86	0.86	0.86	0.93	0.93	0.93	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	150	0	235	0	925	123	228	1224	0
Lane Group Flow (vph)	0	0	0	150	235	0	0	1048	0	228	1224	0
Turn Type				Perm			Perm			Perm		
Protected Phases					8			2			6	
Permitted Phases				8			2			6		
Detector Phases				6	8		2	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		57.0	57.0		21.0	21.0	
Total Split (s)	0.0	0.0	0.0	21.0	21.0	0.0	69.0	69.0	0.0	69.0	69.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	23.3%	23.3%	0.0%	76.7%	76.7%	0.0%	76.7%	76.7%	0.0%
Maximum Green (s)				16.0	16.0		64.0	64.0		64.0	64.0	
Yellow Time (s)				3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)				2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode				None	None		Min	Min		Min	Min	
Walk Time (s)				5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)				11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)				0	0		0	0		0	0	
Act Effct Green (s)				11.8	11.8			47.2		47.2	47.2	
Actuated g/C Ratio				0.18	0.18			0.73		0.73	0.73	
v/c Ratio				0.48	0.52			0.41		0.68	0.47	
Control Delay				31.2	11.5			4.6		20.1	5.2	
Queue Delay				0.0	0.0			0.0		0.0	0.0	
Total Delay				31.2	11.5			4.6		20.1	5.2	
LOS				C	B			A		C	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay					19.2			4.6			7.5	
Approach LOS					B			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 64.5
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 8.0 — Intersection LOS: A
Intersection Capacity Utilization 82.1% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Scranton Road & Route 75 (Camp Road)



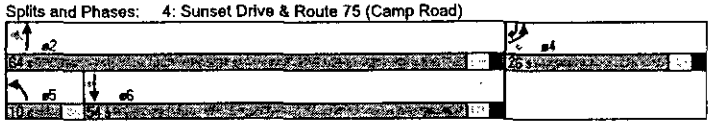
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	200			400
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.095			
Satd. Flow (perm)	1770	1583	177	3539	3539	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		23				319
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			40	40	
Link Distance (ft)	1822			1898	1224	
Travel Time (s)	41.4			32.4	20.9	
Volume (vph)	316	45	115	871	1267	438
Peak Hour Factor	0.94	0.94	0.96	0.96	0.91	0.91
Adj. Flow (vph)	336	48	120	907	1392	481
Lane Group Flow (vph)	336	48	120	907	1392	481
Turn Type		Perm	pm+pt			pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	4
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)	26.0	26.0	10.0	64.0	54.0	26.0
Total Split (%)	28.9%	28.9%	11.1%	71.1%	60.0%	28.9%
Maximum Green (s)	21.0	21.0	7.0	59.0	49.0	21.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0	2.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	Max	Max	None
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)	20.5	20.5	60.0	60.1	52.2	77.6
Actuated g/C Ratio	0.23	0.23	0.66	0.68	0.59	0.88
v/c Ratio	0.82	0.12	0.55	0.38	0.67	0.34
Control Delay	49.8	17.5	17.0	6.9	15.4	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.8	17.5	17.0	6.9	15.4	1.1
LOS	D	B	B	A	B	A

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	45.8			8.1	11.7	
Approach LOS	D			A	B	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 88.6
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 14.6 — Intersection LOS: B
Intersection Capacity Utilization 68.9% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 4: Sunset Drive & Route 75 (Camp Road)



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	111	418	382	706	1422	79
Peak Hour Factor	0.75	0.75	0.96	0.96	0.90	0.90
Hourly flow rate (vph)	148	557	398	735	1580	88
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2665		834	1668		
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2665		834	1668		
tC, single (s)	6.8		6.9	4.1		
tC, 2 stage (s)						
tF (s)	3.5		3.3	2.2		
p0 queue free %	0		0			
cM capacity (veh/h)	0		311	381		

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	705	398	245	245	245	1053	614
Volume Left	148	398	0	0	0	0	0
Volume Right	557	0	0	0	0	0	88
cSH	0	381	1700	1700	1700	1700	1700
Volume to Capacity	Err	1.04	0.14	0.14	0.14	0.62	0.36
Queue Length 95th (ft)	Err	332	0	0	0	0	0
Control Delay (s)	Err	91.5	0.0	0.0	0.0	0.0	0.0
Lane LOS	F	F					
Approach Delay (s)	Err	32.1				0.0	
Approach LOS	F						

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	104.9%	ICU Level of Service	G
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	434	215	167	881	1179	468
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	472	234	182	958	1282	509
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2378		682	1790		
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2378		682	1790		
tC, single (s)	6.8		6.9	4.1		
tC, 2 stage (s)						
tF (s)	3.5		3.3	2.2		
p0 queue free %	0		40	47		
cM capacity (veh/h)	13		393	342		

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	472	234	501	638	513	513	765
Volume Left	472	0	182	0	0	0	0
Volume Right	0	234	0	0	0	0	509
cSH	13	393	342	1700	1700	1700	1700
Volume to Capacity	34.98	0.60	0.53	0.38	0.30	0.30	0.45
Queue Length 95th (ft)	Err	93	74	0	0	0	0
Control Delay (s)	Err	26.8	20.9	0.0	0.0	0.0	0.0
Lane LOS	F	D	C				
Approach Delay (s)	6695.4		9.2		0.0		
Approach LOS	F						

Intersection Summary			
Average Delay	1302.3		
Intersection Capacity Utilization	96.5%	ICU Level of Service	F
Analysis Period (min)	15		

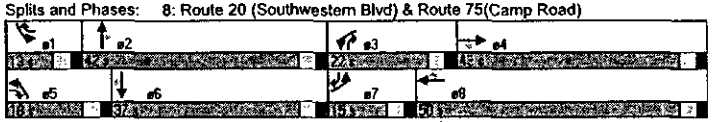
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		550	550		550	195		145	195		350
Storage Lanes	2		1	2		1	2		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			9			16			240			32
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)		50			45			45			45	
Link Distance (ft)		6123			996			1397			631	
Travel Time (s)		83.5			15.1			21.2			9.6	
Volume (vph)	239	469	385	432	876	15	582	637	420	23	958	391
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.98	0.98	0.98	0.96	0.96	0.96
Adj. Flow (vph)	260	510	418	470	952	16	594	650	429	24	998	407
Lane Group Flow (vph)	260	510	418	470	952	16	594	650	429	24	998	407
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phases	7	4	5	3	8	1	5	2	3	1	6	7
Minimum Initial (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
Minimum Split (s)	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0
Total Split (s)	15.0	43.0	18.0	22.0	50.0	13.0	18.0	42.0	22.0	13.0	37.0	15.0
Total Split (%)	12.5%	35.8%	15.0%	18.3%	41.7%	10.8%	15.0%	35.0%	18.3%	10.8%	30.8%	12.5%
Maximum Green (s)	10.0	38.0	13.0	17.0	45.0	8.0	13.0	37.0	17.0	8.0	32.0	10.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-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)	11.0	31.3	57.0	18.0	38.3	50.1	21.7	51.1	73.1	7.9	33.0	48.0
Actuated g/C Ratio	0.09	0.26	0.48	0.15	0.32	0.42	0.18	0.43	0.61	0.07	0.28	0.40
v/c Ratio	0.83	0.55	0.55	0.91	0.84	0.02	0.95	0.43	0.41	0.21	1.03	0.62
Control Delay	75.2	40.0	25.4	73.6	45.4	7.2	75.9	27.7	7.7	56.9	78.5	31.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.2	40.0	25.4	73.6	45.4	7.2	75.9	27.7	7.7	56.9	78.5	31.5
LOS	E	D	C	E	D	A	E	C	A	E	E	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		42.5			54.2			39.7			64.8	
Approach LOS		D			D			D			E	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 50.2 Intersection LOS: D
Intersection Capacity Utilization 87.5% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 8: Route 20 (Southwestern Blvd) & Route 75(Camp Road)

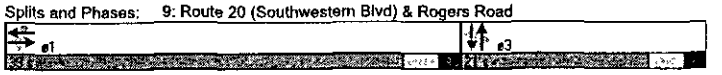


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	300		105	35		0	85		0
Storage Lanes	1		0	1		1	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50	50	50	50		50	50	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996				0.850		0.960			0.955	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3525	0	1770	3539	1583	1770	1788	0	1770	1779	0
Flt Permitted	0.152			0.302			0.631			0.631		
Satd. Flow (perm)	283	3525	0	563	3539	1583	1175	1788	0	1175	1779	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7				262		30			36	
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)		50			50			35			35	
Link Distance (ft)		1073			6123			963			918	
Travel Time (s)		14.6			83.5			18.8			17.9	
Volume (vph)	30	732	19	49	1154	238	23	109	39	153	96	41
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.87	0.87	0.87	0.81	0.81	0.81
Adj. Flow (vph)	33	804	21	54	1268	262	26	125	45	189	119	51
Lane Group Flow (vph)	33	825	0	54	1268	262	26	170	0	189	170	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1		1	3			3		
Detector Phases	1	1		1	1	1	3	3		3	3	
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	27.0	27.0		27.0	27.0	27.0	21.0	21.0		21.0	21.0	
Total Split (s)	39.0	39.0	0.0	39.0	39.0	39.0	21.0	21.0	0.0	21.0	21.0	0.0
Total Split (%)	65.0%	65.0%	0.0%	65.0%	65.0%	65.0%	35.0%	35.0%	0.0%	35.0%	35.0%	0.0%
Maximum Green (s)	34.0	34.0		34.0	34.0	34.0	16.0	16.0		16.0	16.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min	Min	None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effct Green (s)	33.7	33.7		33.7	33.7	33.7	13.5	13.5		13.5	13.5	
Actuated g/C Ratio	0.61	0.61		0.61	0.61	0.61	0.24	0.24		0.24	0.24	
v/c Ratio	0.19	0.38		0.16	0.59	0.25	0.09	0.37		0.66	0.37	
Control Delay	9.2	6.6		7.0	8.5	1.6	16.9	16.3		30.2	15.8	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	9.2	6.6		7.0	8.5	1.6	16.9	16.3		30.2	15.8	
LOS	A	A		A	A	A	B	B		C	B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		6.7			7.3			16.4			23.4	
Approach LOS		A			A			B			C	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 55.3	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 9.6	Intersection LOS: A
Intersection Capacity Utilization 65.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Route 20 (Southwestern Blvd) & Rogers Road



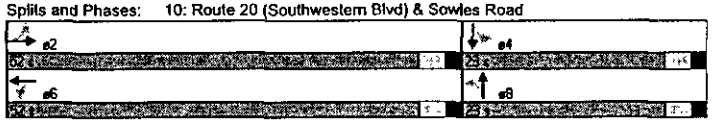
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.987			0.948			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3444	0	1770	3493	0	1770	1768	0	1770	1850	0
Flt Permitted	0.225			0.234			0.532			0.619		
Satd. Flow (perm)	419	3444	0	436	3493	0	991	1768	0	1153	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		60			21			34			3	
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)		45			45			35			35	
Link Distance (ft)		996			2741			815			936	
Travel Time (s)		15.1			41.5			15.9			18.2	
Volume (vph)	12	755	168	19	886	81	170	89	47	57	161	8
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.86	0.86	0.86	0.79	0.79	0.79
Adj. Flow (vph)	13	812	181	20	933	85	198	103	55	72	204	10
Lane Group Flow (vph)	13	993	0	20	1018	0	198	158	0	72	214	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		21.0	21.0		21.0	21.0	
Total Split (s)	52.0	52.0	0.0	52.0	52.0	0.0	28.0	28.0	0.0	28.0	28.0	0.0
Total Split (%)	65.0%	65.0%	0.0%	65.0%	65.0%	0.0%	35.0%	35.0%	0.0%	35.0%	35.0%	0.0%
Maximum Green (s)	47.0	47.0		47.0	47.0		23.0	23.0		23.0	23.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	51.9	51.9		51.9	51.9		20.1	20.1		20.1	20.1	
Actuated g/C Ratio	0.65	0.65		0.65	0.65		0.25	0.25		0.25	0.25	
v/c Ratio	0.05	0.44		0.07	0.45		0.80	0.34		0.25	0.46	
Control Delay	7.2	7.8		7.4	8.2		50.9	19.9		24.5	27.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	7.2	7.8		7.4	8.2		50.9	19.9		24.5	27.3	
LOS	A	A		A	A		D	B		C	C	

Proposed Camp Road Retail PM Peak - Option A Full Development Conditions
10: Route 20 (Southwestern Blvd) & Sowles Road 6/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		7.8			8.2			37.1			26.6	
Approach LOS		A			A			D			C	

Intersection Summary		
Area Type:	Other	
Cycle Length: 80		
Actuated Cycle Length: 80		
Offset: 53 (66%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green		
Natural Cycle: 50		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.80		
Intersection Signal Delay: 13.8	Intersection LOS: B	
Intersection Capacity Utilization 55.4%	ICU Level of Service B	
Analysis Period (min) 15		

Splits and Phases: 10: Route 20 (Southwestern Blvd) & Sowles Road



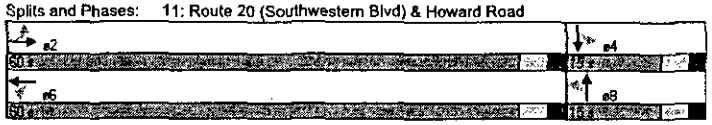
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Synchro 6
SRF & Associates

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	100		0
Storage Lanes	1		0	1		0	0		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		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.980						0.850	
Flt Protected	0.950			0.950				0.950		0.950		
Satd. Flow (prot)	1770	3539	0	1770	3468	0	0	1770	0	1770	1583	0
Flt Permitted	0.230			0.323				0.703		0.755		
Satd. Flow (perm)	428	3539	0	602	3468	0	0	1310	0	1406	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					62						198	
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)		45			45			30			30	
Link Distance (ft)		2741			732			192			400	
Travel Time (s)		41.5			11.1			4.4			9.1	
Volume (vph)	75	780	0	2	877	131	1	0	0	106	0	73
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.25	0.25	0.25	0.88	0.88	0.88
Adj. Flow (vph)	81	839	0	2	974	146	4	0	0	120	0	83
Lane Group Flow (vph)	81	839	0	2	1120	0	0	4	0	120	83	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	60.0	60.0	0.0	60.0	60.0	0.0	15.0	15.0	0.0	15.0	15.0	0.0
Total Split (%)	80.0%	80.0%	0.0%	80.0%	80.0%	0.0%	20.0%	20.0%	0.0%	20.0%	20.0%	0.0%
Maximum Green (s)	55.0	55.0		55.0	55.0		10.0	10.0		10.0	10.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	68.8	68.8		68.8	68.8			10.8		11.0	11.0	
Actuated g/C Ratio	0.80	0.80		0.80	0.80			0.12		0.12	0.12	
v/c Ratio	0.24	0.30		0.00	0.40			0.02		0.68	0.22	
Control Delay	4.8	3.0		2.5	3.3			28.0		50.5	1.4	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	4.8	3.0		2.5	3.3			28.0		50.5	1.4	
LOS	A	A		A	A			C		D	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		3.1			3.3			28.0			30.4	
Approach LOS		A			A			C			C	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 85.7	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 5.7	Intersection LOS: A
Intersection Capacity Utilization 48.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 11: Route 20 (Southwestern Blvd) & Howard Road



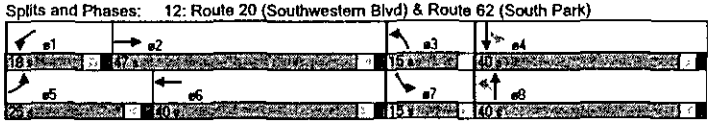
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	250		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.986			0.991			0.965			0.956	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3490	0	1770	3507	0	1770	3415	0	1770	3383	0
Flt Permitted	0.950			0.950			0.111			0.215		
Satd. Flow (perm)	1770	3490	0	1770	3507	0	207	3415	0	400	3383	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			5			34			53	
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)		45			45			45			45	
Link Distance (ft)		1014			518			1425			754	
Travel Time (s)		15.4			7.8			21.6			11.4	
Volume (vph)	220	664	66	139	697	43	93	447	137	45	602	247
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.87	0.87	0.87	0.91	0.91	0.91
Adj. Flow (vph)	237	714	71	149	749	46	107	514	157	49	662	271
Lane Group Flow (vph)	237	785	0	149	795	0	107	671	0	49	933	0
Turn Type	Prot			Prot			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8			4		
Detector Phases	5	2		1	6		3	8		7	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	15.0	38.0		16.0	38.0		9.0	37.0		9.0	37.0	
Total Split (s)	25.0	47.0	0.0	18.0	40.0	0.0	15.0	40.0	0.0	15.0	40.0	0.0
Total Split (%)	20.8%	39.2%	0.0%	15.0%	33.3%	0.0%	12.5%	33.3%	0.0%	12.5%	33.3%	0.0%
Maximum Green (s)	20.0	42.0		13.0	35.0		12.0	35.0		12.0	35.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	2.0		0.0	2.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		Min	Min		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)	18.0	34.2		12.6	28.9		41.1	33.0		37.6	31.2	
Actuated g/C Ratio	0.17	0.33		0.12	0.28		0.40	0.32		0.37	0.30	
v/c Ratio	0.77	0.67		0.69	0.81		0.52	0.60		0.21	0.88	
Control Delay	60.8	32.9		64.5	42.4		29.5	31.5		22.3	44.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	60.8	32.9		64.5	42.4		29.5	31.5		22.3	44.1	
LOS	E	C		E	D		C	C		C	D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		39.4			45.9			31.2			43.0	
Approach LOS		D			D			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 103
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 40.3 Intersection LOS: D
Intersection Capacity Utilization 75.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 12: Route 20 (Southwestern Blvd) & Route 62 (South Park)





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	9	60	48	1047	1335	17
Peak Hour Factor	0.85	0.85	0.84	0.84	0.90	0.90
Hourly flow rate (vph)	11	71	57	1246	1483	19
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				1100	745	
pX, platoon unblocked	0.91	0.85	0.85			
vC, conflicting volume	2230	751	1502			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1856	526	1412			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	79	83	86			
cM capacity (veh/h)	51	421	406			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	81	473	831	989	513
Volume Left	11	57	0	0	0
Volume Right	71	0	0	0	19
cSH	216	406	1700	1700	1700
Volume to Capacity	0.38	0.14	0.49	0.58	0.30
Queue Length 95th (ft)	41	12	0	0	0
Control Delay (s)	31.4	4.4	0.0	0.0	0.0
Lane LOS	D	A			
Approach Delay (s)	31.4	1.6		0.0	
Approach LOS	D				

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	75.2%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	3	0	6	10	0	19	11	1077	10	2	1361	3
Peak Hour Factor	0.65	0.65	0.65	0.77	0.77	0.77	0.98	0.98	0.98	0.95	0.95	0.95
Hourly flow rate (vph)	5	0	9	13	0	25	11	1099	10	2	1433	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								455				
pX, platoon unblocked	0.91	0.91		0.91	0.91	0.91				0.91		
vC, conflicting volume	2035	2570	718	1856	2567	555	1436			1109		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2039	2627	718	1842	2623	410	1436			1020		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	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 %	84	100	98	68	100	95	98			100		
cM capacity (veh/h)	28	21	372	40	21	537	469			614		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	14	38	11	733	377	2	955	481
Volume Left	5	13	11	0	0	2	0	0
Volume Right	9	25	0	0	10	0	0	3
cSH	73	103	469	1700	1700	614	1700	1700
Volume to Capacity	0.19	0.37	0.02	0.43	0.22	0.00	0.56	0.28
Queue Length 95th (ft)	16	37	2	0	0	0	0	0
Control Delay (s)	65.5	59.2	12.9	0.0	0.0	10.9	0.0	0.0
Lane LOS	F	F	B			B		
Approach Delay (s)	65.5	59.2	0.1			0.0		
Approach LOS	F	F						

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	13	11	1730	19	14	1770
Peak Hour Factor	0.63	0.63	0.96	0.96	0.91	0.91
Hourly flow rate (vph)	21	17	1802	20	15	1845
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2815	911			1822	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2815	911			1822	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	94			95	
cM capacity (veh/h)	14	277			332	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	38	1201	620	15	973	973
Volume Left	21	0	0	15	0	0
Volume Right	17	0	20	0	0	0
cSH	24	1700	1700	332	1700	1700
Volume to Capacity	1.58	0.71	0.36	0.05	0.57	0.57
Queue Length 95th (ft)	119	0	0	4	0	0
Control Delay (s)	634.0	0.0	0.0	16.4	0.0	0.0
Lane LOS	F			C		
Approach Delay (s)	634.0	0.0		0.1		
Approach LOS	F					

Intersection Summary			
Average Delay	6.4		
Intersection Capacity Utilization	58.9%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	23	26	1723	41	23	1765
Peak Hour Factor	0.70	0.70	0.94	0.94	0.89	0.89
Hourly flow rate (vph)	33	37	1833	44	26	1983
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						1062
pX, platoon unblocked	0.74					
vC, conflicting volume	2898	938			1877	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	3217	938			1877	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	86			92	
cM capacity (veh/h)	5	265			318	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	70	1222	655	26	992	992
Volume Left	33	0	0	26	0	0
Volume Right	37	0	44	0	0	0
cSH	11	1700	1700	316	1700	1700
Volume to Capacity	6.65	0.72	0.39	0.08	0.58	0.58
Queue Length 95th (ft)	Err	0	0	7	0	0
Control Delay (s)	Err	0.0	0.0	17.4	0.0	0.0
Lane LOS	F			C		
Approach Delay (s)	Err	0.0		0.2		
Approach LOS	F					

Intersection Summary			
Average Delay	177.1		
Intersection Capacity Utilization	58.9%	ICU Level of Service	B
Analysis Period (min)	15		

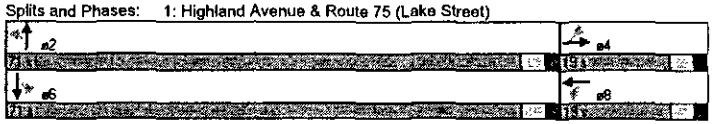
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		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		0.925			0.854			0.994			0.996	
Flt Protected	*0.950*			*0.950*			*0.950*			*0.950*		
Satd. Flow (prot)	1770	1723	0	1770	1591	0	1770	1852	0	1770	1855	0
Flt Permitted	0.458			0.754			0.332			0.195		
Satd. Flow (perm)	853	1723	0	1405	1591	0	618	1852	0	363	1855	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			175			7			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			30			30	
Link Distance (ft)		200			370			446			287	
Travel Time (s)		4.5			8.4			10.1			6.5	
Volume (vph)	11	2	2	31	4	142	3	816	34	105	654	18
Peak Hour Factor	0.58	0.58	0.58	0.81	0.81	0.81	0.86	0.86	0.86	0.95	0.95	0.95
Adj. Flow (vph)	19	3	3	38	5	175	3	949	40	111	688	19
Lane Group Flow (vph)	19	6	0	38	180	0	3	989	0	111	707	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	22.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	19.0	19.0	0.0	19.0	19.0	0.0	71.0	71.0	0.0	71.0	71.0	0.0
Total Split (%)	21.1%	21.1%	0.0%	21.1%	21.1%	0.0%	78.9%	78.9%	0.0%	78.9%	78.9%	0.0%
Maximum Green (s)	14.0	14.0		14.0	14.0		66.0	66.0		66.0	66.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	9.3	9.3		9.3	9.3		72.5	72.5		72.5	72.5	
Actuated g/C Ratio	0.10	0.10		0.10	0.10		0.81	0.81		0.81	0.81	
v/c Ratio	0.22	0.03		0.26	0.56		0.01	0.66		0.38	0.47	
Control Delay	39.7	26.7		38.5	13.3		2.3	6.7		7.3	4.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	39.7	26.7		38.5	13.3		2.3	6.7		7.3	4.2	
LOS	D	C		D	B		A	A		A	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		36.6			17.7			6.7			4.6	
Approach LOS		D			B			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 89.9
Natural Cycle: 70
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 7.4 Intersection LOS: A
Intersection Capacity Utilization 70.0% *ICU Level of Service C*
Analysis Period (min) 15

Splits and Phases: 1: Highland Avenue & Route 75 (Lake Street)



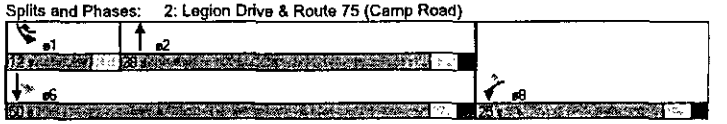
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	250		0	250	
Storage Lanes	1	1		0	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50
Trailing Detector (ft)	0	0	0		0	0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.969			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3429	0	1770	3539
Flt Permitted	0.950				0.148	
Satd. Flow (perm)	1770	1583	3429	0	276	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		100	58			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	35		40			40
Link Distance (ft)	760		863			689
Travel Time (s)	14.8		14.7			11.7
Volume (vph)	186	398	718	190	354	654
Peak Hour Factor	0.95	0.95	0.88	0.88	0.93	0.93
Adj. Flow (vph)	196	419	816	216	381	703
Lane Group Flow (vph)	196	419	1032	0	381	703
Turn Type		pm+ov			pm+pt	
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phases	8	1	2		1	6
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	21.0	9.0	28.0		9.0	28.0
Total Split (s)	25.0	12.0	38.0	0.0	12.0	50.0
Total Split (%)	33.3%	16.0%	50.7%	0.0%	16.0%	66.7%
Maximum Green (s)	20.0	9.0	33.0		9.0	45.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	0.0	2.0		0.0	2.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	5.0		5.0			5.0
Flash Dont Walk (s)	11.0		11.0			11.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	12.3	21.8	23.1		36.5	38.1
Actuated g/C Ratio	0.22	0.41	0.43		0.68	0.71
v/c Ratio	0.50	0.60	0.69		0.67	0.28
Control Delay	25.6	14.1	15.1		38.4	5.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	25.6	14.1	15.1		38.4	5.1
LOS	C	B	B		D	A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach Delay	17.8		15.1			16.8
Approach LOS	B		B			B

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 53.8
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 16.4 — Intersection LOS: B
Intersection Capacity Utilization 65.8% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Legion Drive & Route 75 (Camp Road)



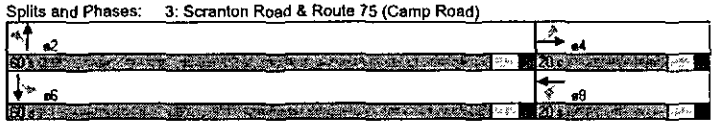
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	275		0	0		0	300		0
Storage Lanes	0		0	1		0	0		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		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	0.95	0.95	0.95	1.00	0.95	0.95
Frt		0.916			0.851			0.989				
Flt Protected		0.982		0.950						0.950		
Satd. Flow (prot)	0	1676	0	1770	1585	0	0	3500	0	1770	3539	0
Flt Permitted		0.905		0.752				0.955		0.224		
Satd. Flow (perm)	0	1544	0	1401	1585	0	0	3343	0	417	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			161			25				
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)		35			35			40			40	
Link Distance (ft)		92			373			1152			1898	
Travel Time (s)		1.8			7.3			19.6			32.4	
Volume (vph)	1	0	2	108	1	184	1	987	81	178	836	1
Peak Hour Factor	0.38	0.38	0.38	0.88	0.88	0.88	0.97	0.97	0.97	0.95	0.95	0.95
Adj. Flow (vph)	3	0	5	123	1	209	1	1018	84	187	880	1
Lane Group Flow (vph)	0	8	0	123	210	0	0	1103	0	187	881	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		57.0	57.0		21.0	21.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	60.0	60.0	0.0	60.0	60.0	0.0
Total Split (%)	25.0%	25.0%	0.0%	25.0%	25.0%	0.0%	75.0%	75.0%	0.0%	75.0%	75.0%	0.0%
Maximum Green (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		11.7		11.7	11.7			42.1		42.1	42.1	
Actuated g/C Ratio		0.19		0.19	0.19			0.70		0.70	0.70	
v/c Ratio		0.03		0.47	0.49			0.47		0.64	0.35	
Control Delay		18.0		28.0	11.9			5.4		19.1	4.7	
Queue Delay		0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay		18.0		28.0	11.9			5.4		19.1	4.7	
LOS		B		C	B			A		B	A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		18.0			17.8			5.4			7.2	
Approach LOS		B			B			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 59.9
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 7.8 Intersection LOS: A
Intersection Capacity Utilization 75.7% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 3: Scranton Road & Route 75 (Camp Road)



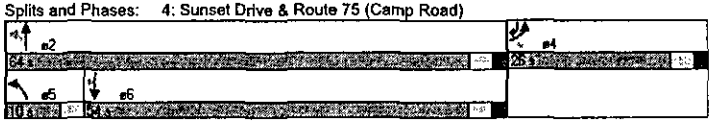
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	50	200			400
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.218			
Satd. Flow (perm)	1770	1583	406	3539	3539	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		33				256
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			40	40	
Link Distance (ft)	1822			1898	1224	
Travel Time (s)	41.4			32.4	20.9	
Volume (vph)	325	68	80	1048	932	253
Peak Hour Factor	0.95	0.95	0.98	0.98	0.99	0.99
Adj. Flow (vph)	342	72	82	1069	941	256
Lane Group Flow (vph)	342	72	82	1069	941	256
Turn Type		Perm	pm+pt			pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4	2			6
Detector Phases	4	4	5	2	6	4
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)	26.0	26.0	10.0	64.0	54.0	26.0
Total Split (%)	28.9%	28.9%	11.1%	71.1%	60.0%	28.9%
Maximum Green (s)	21.0	21.0	7.0	59.0	49.0	21.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0	2.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	Max	Max	None
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)	20.4	20.4	60.0	60.0	52.3	77.6
Actuated g/C Ratio	0.23	0.23	0.67	0.68	0.59	0.88
v/c Ratio	0.84	0.18	0.23	0.45	0.45	0.18
Control Delay	51.4	18.0	6.8	7.5	11.8	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.4	18.0	6.8	7.5	11.8	0.5
LOS	D	B	A	A	B	A

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	45.6			7.4	9.4	
Approach LOS	D			A	A	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 88.5
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 14.0 — Intersection LOS: B
Intersection Capacity Utilization 58.2% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 4: Sunset Drive & Route 75 (Camp Road)





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	132	523	555	664	726	102
Peak Hour Factor	0.92	0.92	0.96	0.96	0.94	0.94
Hourly flow rate (vph)	143	568	578	692	772	109
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2213	440	881			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2213	440	881			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	0	24			
cM capacity (veh/h)	9	564	763			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	712	578	231	231	231	515	366
Volume Left	143	578	0	0	0	0	0
Volume Right	568	0	0	0	0	0	109
cSH	42	763	1700	1700	1700	1700	1700
Volume to Capacity	16.87	0.76	0.14	0.14	0.14	0.30	0.22
Queue Length 95th (ft)	Err	179	0	0	0	0	0
Control Delay (s)	Err	22.9	0.0	0.0	0.0	0.0	0.0
Lane LOS	F	C					
Approach Delay (s)	Err	10.4				0.0	
Approach LOS	F						

Intersection Summary			
Average Delay	2491.5		
Intersection Capacity Utilization	103.6%	ICU Level of Service	G
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	556	267	251	741	726	683
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	604	290	273	805	789	742
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2109	634	1532			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2109	634	1532			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	31	37			
cM capacity (veh/h)	16	422	431			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	604	290	541	537	316	316	900
Volume Left	604	0	273	0	0	0	0
Volume Right	0	290	0	0	0	0	742
cSH	16	422	431	1700	1700	1700	1700
Volume to Capacity	37.51	0.69	0.63	0.32	0.19	0.19	0.53
Queue Length 95th (ft)	Err	127	107	0	0	0	0
Control Delay (s)	Err	30.4	23.4	0.0	0.0	0.0	0.0
Lane LOS	F	D	C				
Approach Delay (s)	6764.9		11.8		0.0		
Approach LOS	F						

Intersection Summary			
Average Delay	1730.5		
Intersection Capacity Utilization	97.9%	ICU Level of Service	F
Analysis Period (min)	15		

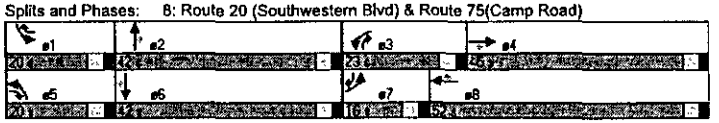
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		550	550		550	195		145	195		350
Storage Lanes	2		1	2		1	2		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			66			38			264			69
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)		50			45			45			45	
Link Distance (ft)		6123			996			1397			631	
Travel Time (s)		83.5			15.1			21.2			9.6	
Volume (vph)	256	567	463	469	652	36	510	603	490	34	539	258
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.94	0.94	0.94	0.96	0.96	0.96
Adj. Flow (vph)	281	623	509	494	686	38	543	641	521	35	561	269
Lane Group Flow (vph)	281	623	509	494	686	38	543	641	521	35	561	269
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phases	7	4	5	3	8	1	5	2	3	1	6	7
Minimum Initial (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
Minimum Split (s)	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0
Total Split (s)	16.0	45.0	20.0	23.0	52.0	20.0	20.0	42.0	23.0	20.0	42.0	16.0
Total Split (%)	12.3%	34.6%	15.4%	17.7%	40.0%	15.4%	15.4%	32.3%	17.7%	15.4%	32.3%	12.3%
Maximum Green (s)	11.0	40.0	15.0	18.0	47.0	15.0	15.0	37.0	18.0	15.0	37.0	11.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	*None*	*None*	*None*	*None*	*None*	*None*	*None*	*C-Max*	*None*	*None*	*C-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)	12.0	28.2	61.0	19.0	35.2	48.2	28.8	59.9	82.9	9.0	38.0	54.0
Actuated g/C Ratio	0.09	0.22	0.47	0.15	0.27	0.37	0.22	0.46	0.64	0.07	0.29	0.42
v/c Ratio	0.89	0.81	0.65	0.98	0.72	0.06	0.71	0.39	0.47	0.29	0.54	0.39
Control Delay	86.8	57.0	27.5	91.6	47.0	6.7	53.6	25.8	8.2	62.7	41.0	21.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.8	57.0	27.5	91.6	47.0	6.7	53.6	25.8	8.2	62.7	41.0	21.1
LOS	F	E	C	F	D	A	D	C	A	E	D	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		52.3			63.8			29.3			35.7	
Approach LOS		D			E			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 44.7 Intersection LOS: D
Intersection Capacity Utilization 71.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 8: Route 20 (Southwestern Blvd) & Route 75(Camp Road)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	300		105	35		0	85		0
Storage Lanes	1		0	1			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	50		50	50	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997				0.850		0.940			0.961	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3529	0	1770	3539	1583	1770	1751	0	1770	1790	0
Flt Permitted	0.326			0.311			0.657			0.660		
Satd. Flow (perm)	607	3529	0	579	3539	1583	1224	1751	0	1229	1790	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7				181		61			32	
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)		50			50			35			35	
Link Distance (ft)		1073			6123			963			918	
Travel Time (s)		14.6			83.5			18.8			17.9	
Volume (vph)	43	820	15	52	807	181	16	83	55	173	108	38
Peak Hour Factor	0.99	0.99	0.99	1.00	1.00	1.00	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	43	828	15	52	807	181	18	92	61	188	117	41
Lane Group Flow (vph)	43	843	0	52	807	181	18	153	0	188	158	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1		1	3			3		
Detector Phases	1	1		1	1	1	3	3		3	3	
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	27.0	27.0		27.0	27.0	27.0	21.0	21.0		21.0	21.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	35.0	15.0	15.0	0.0	15.0	15.0	0.0
Total Split (%)	70.0%	70.0%	0.0%	70.0%	70.0%	70.0%	30.0%	30.0%	0.0%	30.0%	30.0%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0	30.0	10.0	10.0		10.0	10.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min	Min	None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effct Green (s)	26.1	26.1		26.1	26.1	26.1	10.6	10.6		10.6	10.6	
Actuated g/C Ratio	0.58	0.58		0.58	0.58	0.58	0.24	0.24		0.24	0.24	
v/c Ratio	0.12	0.41		0.15	0.39	0.18	0.06	0.33		0.65	0.35	
Control Delay	5.2	5.8		5.6	5.7	1.3	15.2	11.9		29.5	14.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	5.2	5.8		5.6	5.7	1.3	15.2	11.9		29.5	14.5	
LOS	A	A		A	A	A	B	B		C	B	

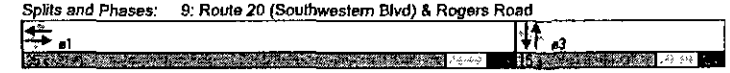
Proposed Camp Road Retail SAT Peak - Option A Full Development Conditions
9: Route 20 (Southwestern Blvd) & Rogers Road 6/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay	5.8			5.0			12.3			22.6		
Approach LOS	A			A			B			C		

Intersection Summary

Area Type: Other
Cycle Length: 50
Actuated Cycle Length: 44.9
Natural Cycle: 50
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 8.3 Intersection LOS: A
Intersection Capacity Utilization 57.1% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 9: Route 20 (Southwestern Blvd) & Rogers Road



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Synchro 6
SRF & Associates

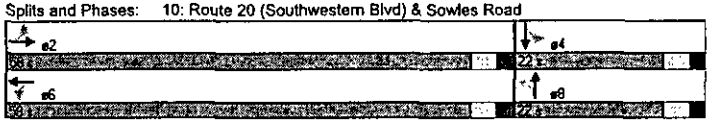
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.991			0.954			0.960	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3444	0	1770	3507	0	1770	1777	0	1770	1788	0
Flt Permitted	0.290			0.231			0.692			0.668		
Satd. Flow (perm)	540	3444	0	430	3507	0	1289	1777	0	1244	1788	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		73			17			25			21	
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)		45			45			35			35	
Link Distance (ft)		996			2741			815			936	
Travel Time (s)		15.1			41.5			15.9			18.2	
Volume (vph)	22	817	181	13	769	48	179	69	30	33	67	25
Peak Hour Factor	0.94	0.94	0.94	0.92	0.92	0.92	0.84	0.84	0.84	0.91	0.91	0.91
Adj. Flow (vph)	23	869	193	14	836	52	213	82	36	36	74	27
Lane Group Flow (vph)	23	1062	0	14	888	0	213	118	0	36	101	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		21.0	21.0		21.0	21.0	
Total Split (s)	58.0	58.0	0.0	58.0	58.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0
Total Split (%)	72.5%	72.5%	0.0%	72.5%	72.5%	0.0%	27.5%	27.5%	0.0%	27.5%	27.5%	0.0%
Maximum Green (s)	53.0	53.0		53.0	53.0		17.0	17.0		17.0	17.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	55.4	55.4		55.4	55.4		16.6	16.6		16.6	16.6	
Actuated g/C Ratio	0.69	0.69		0.69	0.69		0.21	0.21		0.21	0.21	
v/c Ratio	0.06	0.44		0.05	0.36		0.80	0.30		0.14	0.26	
Control Delay	4.9	5.9		4.9	5.7		52.7	22.6		26.5	22.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	4.9	5.9		4.9	5.7		52.7	22.6		26.5	22.5	
LOS	A	A		A	A		D	C		C	C	

Proposed Camp Road Retail — SAT Peak - Option A Full Development Conditions
10: Route 20 (Southwestern Blvd) & Sowles Road — 6/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		5.9			5.7			42.0			23.5	
Approach LOS		A			A			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 53 (66%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 11.7		Intersection LOS: B	
Intersection Capacity Utilization 51.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 10: Route 20 (Southwestern Blvd) & Sowles Road



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Synchro 6
SRF & Associates

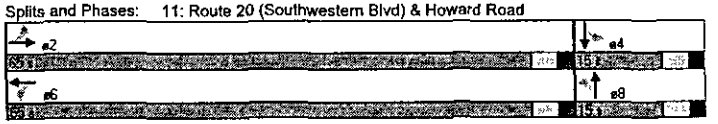
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	100		0
Storage Lanes	1		0	1		0	0		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.984						0.850	
Flt Protected	0.950							0.950		0.950		
Satd. Flow (prot)	1770	3539	0	1863	3483	0	0	1770	0	1770	1583	0
Flt Permitted	0.268							0.701		0.755		
Satd. Flow (perm)	499	3539	0	1863	3483	0	0	1306	0	1406	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					48						236	
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)		45			45			30			30	
Link Distance (ft)		2741			732			192			400	
Travel Time (s)		41.5			11.1			4.4			9.1	
Volume (vph)	71	894	1	0	824	98	1	0	0	104	0	70
Peak Hour Factor	0.89	0.89	0.89	0.92	0.92	0.92	0.25	0.25	0.25	0.81	0.81	0.81
Adj. Flow (vph)	80	1004	1	0	896	107	4	0	0	128	0	86
Lane Group Flow (vph)	80	1005	0	0	1003	0	0	4	0	128	86	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phases	2	2		6	6		8	8		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	65.0	65.0	0.0	65.0	65.0	0.0	15.0	15.0	0.0	15.0	15.0	0.0
Total Split (%)	81.3%	81.3%	0.0%	81.3%	81.3%	0.0%	18.8%	18.8%	0.0%	18.8%	18.8%	0.0%
Maximum Green (s)	60.0	60.0		60.0	60.0		10.0	10.0		10.0	10.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	70.2	70.2			70.2			10.9			10.9	10.9
Actuated g/C Ratio	0.79	0.79			0.79			0.12			0.12	0.12
v/c Ratio	0.20	0.36			0.36			0.02			0.74	0.21
Control Delay	4.0	3.3			3.2			30.0			59.7	1.2
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	4.0	3.3			3.2			30.0			59.7	1.2
LOS	A	A			A			C			E	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		3.4			3.2			30.0			36.2	
Approach LOS		A			A			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 89.3
Natural Cycle: 45
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 6.4 Intersection LOS: A
Intersection Capacity Utilization 45.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 11: Route 20 (Southwestern Blvd) & Howard Road



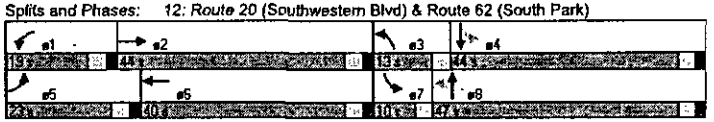
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	250		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.982			0.992			0.960			0.950	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3476	0	1770	3511	0	1770	3398	0	1770	3362	0
Flt Permitted	0.950			0.950			0.241			0.293		
Satd. Flow (perm)	1770	3476	0	1770	3511	0	449	3398	0	546	3362	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			5			48			77	
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)		45			45			45			45	
Link Distance (ft)		1014			518			1425			754	
Travel Time (s)		15.4			7.8			21.6			11.4	
Volume (vph)	176	776	104	107	691	41	76	420	152	54	400	199
Peak Hour Factor	0.88	0.88	0.88	0.94	0.94	0.94	0.88	0.88	0.88	0.93	0.93	0.93
Adj. Flow (vph)	200	882	118	114	735	44	86	477	173	58	430	214
Lane Group Flow (vph)	200	1000	0	114	779	0	86	650	0	58	644	0
Turn Type	Prot			Prot			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8			4		
Detector Phases	5	2		1	6		3	8		7	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	15.0	38.0		16.0	38.0		9.0	37.0		9.0	37.0	
Total Split (s)	23.0	44.0	0.0	19.0	40.0	0.0	13.0	47.0	0.0	10.0	44.0	0.0
Total Split (%)	19.2%	36.7%	0.0%	15.8%	33.3%	0.0%	10.8%	39.2%	0.0%	8.3%	36.7%	0.0%
Maximum Green (s)	18.0	39.0		14.0	35.0		10.0	42.0		7.0	39.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	2.0		0.0	2.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		Min	Min		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)	15.0	31.1		11.5	27.6		30.1	22.9		27.3	21.6	
Actuated g/C Ratio	0.17	0.35		0.13	0.31		0.34	0.26		0.31	0.24	
v/c Ratio	0.66	0.81		0.50	0.71		0.33	0.71		0.23	0.73	
Control Delay	49.4	32.7		48.5	31.9		24.0	32.7		22.8	33.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	49.4	32.7		48.5	31.9		24.0	32.7		22.8	33.4	
LOS	D	C		D	C		C	C		C	C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		35.5			34.0			31.7			32.5	
Approach LOS		D			C			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 88.3
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 33.7 Intersection LOS: C
Intersection Capacity Utilization 65.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 12: Route 20 (Southwestern Blvd) & Route 62 (South Park)



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	11	43	45	1101	939	32
Peak Hour Factor	0.54	0.54	0.96	0.96	0.93	0.93
Hourly flow rate (vph)	20	80	47	1147	1010	34
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				1100	745	
pX, platoon unblocked	0.94	0.93	0.93			
vC, conflicting volume	1694	522	1044			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1456	413	974			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	81	85	93			
cM capacity (veh/h)	105	548	656			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	100	429	765	673	371
Volume Left	20	47	0	0	0
Volume Right	80	0	0	0	34
cSH	295	656	1700	1700	1700
Volume to Capacity	0.34	0.07	0.45	0.40	0.22
Queue Length 95th (ft)	36	6	0	0	0
Control Delay (s)	23.3	2.1	0.0	0.0	0.0
Lane LOS	C	A			
Approach Delay (s)	23.3	0.8		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	72.0%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	3	0	17	20	0	17	14	1171	3	6	996	0
Peak Hour Factor	0.67	0.67	0.67	0.72	0.72	0.72	0.85	0.85	0.85	0.87	0.87	0.87
Hourly flow rate (vph)	4	0	25	28	0	24	16	1378	4	7	1145	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								455				
pX, platoon unblocked	0.87	0.87		0.87	0.87	0.87				0.87		
vC, conflicting volume	1904	2573	572	2024	2571	691	1145			1381		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1890	2656	572	2027	2654	501	1145			1291		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	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 %	87	100	95	0	100	95	97			99		
cM capacity (veh/h)	34	19	463	27	19	450	606			465		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	30	51	16	918	463	7	763	382
Volume Left	4	28	16	0	0	7	0	0
Volume Right	25	24	0	0	4	0	0	0
cSH	161	47	606	1700	1700	465	1700	1700
Volume to Capacity	0.19	1.08	0.03	0.54	0.27	0.01	0.45	0.22
Queue Length 95th (ft)	16	116	2	0	0	1	0	0
Control Delay (s)	32.4	293.7	11.1	0.0	0.0	12.9	0.0	0.0
Lane LOS	D	F	B			B		
Approach Delay (s)	32.4	293.7	0.1			0.1		
Approach LOS	D	F						

Intersection Summary			
Average Delay	6.2		
Intersection Capacity Utilization	45.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	10	4	1652	40	10	1522
Peak Hour Factor	0.54	0.54	0.90	0.90	0.91	0.91
Hourly flow rate (vph)	19	7	1836	44	11	1673
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2716	940			1880	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2716	940			1880	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	97			97	
cM capacity (veh/h)	16	265			315	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	26	1224	656	11	836	836
Volume Left	19	0	0	11	0	0
Volume Right	7	0	44	0	0	0
cSH	22	1700	1700	315	1700	1700
Volume to Capacity	1.17	0.72	0.39	0.03	0.49	0.49
Queue Length 95th (ft)	84	0	0	3	0	0
Control Delay (s)	502.2	0.0	0.0	16.8	0.0	0.0
Lane LOS	F			C		
Approach Delay (s)	502.2	0.0		0.1		
Approach LOS	F					

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	18	23	1653	28	20	1480
Peak Hour Factor	0.95	0.95	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	19	24	1816	31	22	1626
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						1062
pX, platoon unblocked	0.88					
vC, conflicting volume	2689	924			1847	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2787	924			1847	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	91			93	
cM capacity (veh/h)	12	272			325	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	43	1211	636	22	813	813
Volume Left	19	0	0	22	0	0
Volume Right	24	0	31	0	0	0
cSH	26	1700	1700	325	1700	1700
Volume to Capacity	1.64	0.71	0.37	0.07	0.48	0.48
Queue Length 95th (ft)	130	0	0	5	0	0
Control Delay (s)	634.3	0.0	0.0	16.9	0.0	0.0
Lane LOS	F			C		
Approach Delay (s)	634.3	0.0		0.2		
Approach LOS	F					

Intersection Summary			
Average Delay	7.8		
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		

A7

Level of Service Calculations: Full Development Conditions with Mitigation

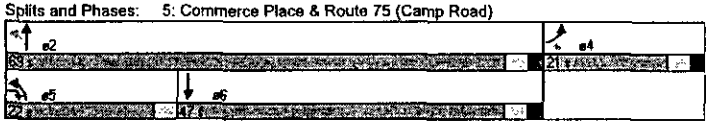
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	300	250			0
Storage Lanes	1	1	1			0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0	
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	0.91	0.95	0.95
Flt		0.850			0.992	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	5085	3511	0
Flt Permitted	0.950		0.085			
Satd. Flow (perm)	1770	1583	158	5085	3511	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		12			9	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			40	45	
Link Distance (ft)	551			325	126	
Travel Time (s)	12.5			5.5	1.9	
Volume (vph)	111	418	382	706	1422	79
Peak Hour Factor	0.75	0.75	0.96	0.96	0.90	0.90
Adj. Flow (vph)	148	557	398	735	1580	88
Lane Group Flow (vph)	148	557	398	735	1668	0
Turn Type		pm+ov	pm+pt			
Protected Phases	4	5	5	2	6	
Permitted Phases		4	2			
Detector Phases	4	5	5	2	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	9.0	9.0	21.0	21.0	
Total Split (s)	21.0	22.0	22.0	69.0	47.0	0.0
Total Split (%)	23.3%	24.4%	24.4%	76.7%	52.2%	0.0%
Maximum Green (s)	16.0	19.0	19.0	64.0	42.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	0.0	0.0	2.0	2.0	
Lead/Lag		Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	Max	Max	
Walk Time (s)	5.0			5.0	5.0	
Flash Dont Walk (s)	11.0			11.0	11.0	
Pedestrian Calls (#/hr)	0			0	0	
Act Effct Green (s)	13.0	34.2	65.1	65.1	43.9	
Actuated g/C Ratio	0.15	0.40	0.76	0.76	0.51	
v/c Ratio	0.55	0.88	0.90	0.19	0.93	
Control Delay	41.8	39.7	48.5	3.4	31.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	41.8	39.7	48.5	3.4	31.5	
LOS	D	D	D	A	C	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	40.2			19.2	31.5	
Approach LOS	D			B	C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 86.1
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 29.3 Intersection LOS: C
Intersection Capacity Utilization 79.1% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 5: Commerce Place & Route 75 (Camp Road)

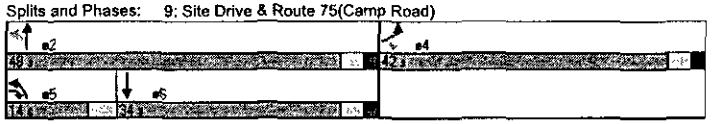


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0	
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.91	0.91
Frt		0.850			0.960	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	4882	0
Flt Permitted	0.950		0.118			
Satd. Flow (perm)	1770	1583	220	3539	4882	0
Right Turn on Red		No				Yes
Satd. Flow (RTOR)					109	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			45	45	
Link Distance (ft)	192			137	358	
Travel Time (s)	4.4			2.1	5.4	
Volume (vph)	434	215	167	1205	1286	468
Peak Hour Factor	0.92	0.92	0.96	0.96	0.91	0.91
Adj. Flow (vph)	472	234	174	1255	1413	514
Lane Group Flow (vph)	472	234	174	1255	1927	0
Turn Type		pm+ov	pm+pt			
Protected Phases	4	5	5	2	6	
Permitted Phases		4	2			
Detector Phases	4	5	5	2	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	26.5	8.0	8.0	21.0	21.0	
Total Split (s)	42.0	14.0	14.0	48.0	34.0	0.0
Total Split (%)	46.7%	15.6%	15.6%	53.3%	37.8%	0.0%
Maximum Green (s)	37.0	10.5	10.5	43.0	29.0	
Yellow Time (s)	3.0	3.5	3.5	3.0	3.0	
All-Red Time (s)	2.0	0.0	0.0	2.0	2.0	
Lead/Lag		Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	Max	Max	
Walk Time (s)	5.0			5.0	5.0	
Flash Dont Walk (s)	11.0			11.0	11.0	
Pedestrian Calls (#/hr)	0			0	0	
Act Effct Green (s)	26.5	38.7	44.4	44.4	32.1	
Actuated g/C Ratio	0.34	0.49	0.56	0.56	0.41	
v/c Ratio	0.80	0.30	0.61	0.63	0.94	
Control Delay	34.1	12.3	21.6	14.9	34.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	34.1	12.3	21.6	14.9	34.3	
LOS	C	B	C	B	C	
Approach Delay	26.9			15.7	34.3	
Approach LOS	C			B	C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 78.9
Natural Cycle: 70
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 26.5 — Intersection LOS: C
Intersection Capacity Utilization 78.6% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 9: Site Drive & Route 75(Camp Road)



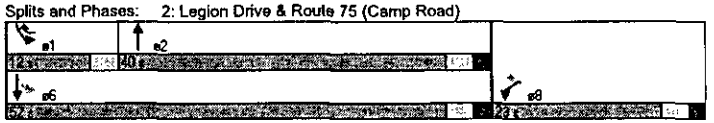
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	250		0	250	
Storage Lanes	1	1		0	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50
Trailing Detector (ft)	0	0	0		0	0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt			0.850	0.969		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3429	0	1770	3539
Flt Permitted	0.950				0.161	
Satd. Flow (perm)	1770	1583	3429	0	300	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		115	61			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	35		40			40
Link Distance (ft)	760		863			689
Travel Time (s)	14.8		14.7			11.7
Volume (vph)	186	398	718	190	354	654
Peak Hour Factor	0.95	0.95	0.88	0.88	0.93	0.93
Adj. Flow (vph)	196	419	816	216	381	703
Lane Group Flow (vph)	196	419	1032	0	381	703
Turn Type		pm+ov			pm+pt	
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phases	8	1	2		1	6
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	21.0	9.0	28.0		9.0	28.0
Total Split (s)	23.0	12.0	40.0	0.0	12.0	52.0
Total Split (%)	30.7%	16.0%	53.3%	0.0%	16.0%	69.3%
Maximum Green (s)	18.0	9.0	35.0		9.0	47.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	0.0	2.0		0.0	2.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	5.0		5.0			5.0
Flash Dont Walk (s)	11.0		11.0			11.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	12.3	21.8	23.3		36.8	38.3
Actuated g/C Ratio	0.22	0.40	0.43		0.68	0.71
v/c Ratio	0.51	0.59	0.68		0.85	0.28
Control Delay	26.0	13.7	14.9		34.0	5.0
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	26.0	13.7	14.9		34.0	5.0
LOS	C	B	B		C	A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach Delay	17.6		14.9		15.2	
Approach LOS	B		B		B	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 54.1
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 15.6 Intersection LOS: B
Intersection Capacity Utilization 65.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Legion Drive & Route 75 (Camp Road)



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	300	250			0
Storage Lanes	1		1			0
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	0.91	0.95	0.95
Frt		0.850			0.981	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	5085	3472	0
Flt Permitted	0.950		0.125			
Satd. Flow (perm)	1770	1583	233	5085	3472	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		568			18	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			40	45	
Link Distance (ft)	551			325	126	
Travel Time (s)	12.5			5.5	1.9	
Volume (vph)	132	523	555	664	726	102
Peak Hour Factor	0.92	0.92	0.96	0.96	0.94	0.94
Adj. Flow (vph)	143	568	578	692	772	109
Lane Group Flow (vph)	143	568	578	692	881	0
Turn Type		Perm	pm+pt			
Protected Phases	4		5	2	6	
Permitted Phases		4	2			
Detector Phases	4	4	5	2	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	21.0	8.0	21.0	21.0	
Total Split (s)	26.0	26.0	32.0	64.0	32.0	0.0
Total Split (%)	28.9%	28.9%	35.6%	71.1%	35.6%	0.0%
Maximum Green (s)	21.0	21.0	29.0	59.0	27.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	Max	Max	
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)	14.0	14.0	60.2	60.2	31.8	
Actuated g/C Ratio	0.17	0.17	0.73	0.73	0.39	
v/c Ratio	0.47	0.77	0.92	0.19	0.65	
Control Delay	35.6	10.5	41.5	4.0	25.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	35.6	10.5	41.5	4.0	25.2	
LOS	D	B	D	A	C	

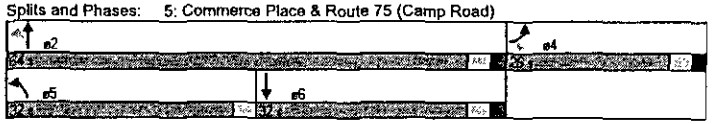
Proposed Camp Road Retail SAT Peak - Option A Full Development Mitigated Conditions
5: Commerce Place & Route 75 (Camp Road) 6/6/2007

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	15.5			21.1	25.2	
Approach LOS	B			C	C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 82.2
Natural Cycle: 75
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 21.0 Intersection LOS: C
Intersection Capacity Utilization 71.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 5: Commerce Place & Route 75 (Camp Road)



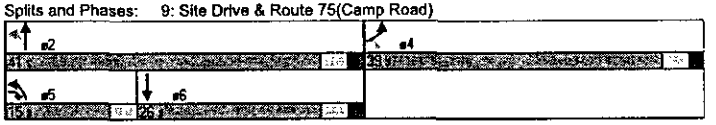
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Synchro 6
SRF & Associates

Lane Group	EBL	EBR	NBL	NBT	SBT	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	
Trailing Detector (ft)	0	0	0	0	0	
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.91	0.91
Frt		0.850			0.932	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	4739	0
Flt Permitted	0.950		0.154			
Satd. Flow (perm)	1770	1583	287	3539	4739	0
Right Turn on Red		No				Yes
Satd. Flow (RTOR)					255	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			45	45	
Link Distance (ft)	192			137	358	
Travel Time (s)	4.4			2.1	5.4	
Volume (vph)	556	267	251	1064	834	683
Peak Hour Factor	0.92	0.92	0.90	0.90	0.91	0.91
Adj. Flow (vph)	604	290	279	1182	916	751
Lane Group Flow (vph)	604	290	279	1182	1667	0
Turn Type		pm+ov	pm+pt			
Protected Phases	4	5	5	2	6	
Permitted Phases		4	2			
Detector Phases	4	5	5	2	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	8.0	8.0	21.0	21.0	
Total Split (s)	39.0	15.0	15.0	41.0	26.0	0.0
Total Split (%)	48.8%	18.8%	18.8%	51.3%	32.5%	0.0%
Maximum Green (s)	34.0	12.0	12.0	36.0	21.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	0.0	0.0	2.0	2.0	
Lead/Lag		Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	Max	Max	
Walk Time (s)	5.0			5.0	5.0	
Flash Dont Walk (s)	11.0			11.0	11.0	
Pedestrian Calls (#/hr)	0			0	0	
Act Effct Green (s)	29.5	43.9	37.2	37.2	22.9	
Actuated g/C Ratio	0.39	0.59	0.50	0.50	0.31	
v/c Ratio	0.86	0.31	0.80	0.67	1.12dr	
Control Delay	34.7	8.4	34.5	17.6	54.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	34.7	8.4	34.5	17.6	54.0	
LOS	C	A	C	B	D	
Approach Delay	26.2			20.8	54.0	
Approach LOS	C			C	D	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 74.8
Natural Cycle: 50
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 35.8 — Intersection LOS: D
Intersection Capacity Utilization 86.1% — ICU Level of Service E
Analysis Period (min) 15
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 9: Site Drive & Route 75(Camp Road)



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Synchro 6
SRF & Associates

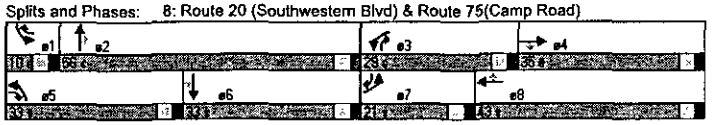
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		550	550		550	195		145	195		350
Storage Lanes	2		1	2		1	2		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			36			38			86			47
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)		50			45			45			45	
Link Distance (ft)		6123			996			1397			631	
Travel Time (s)		83.5			15.1			21.2			9.6	
Volume (vph)	256	567	463	469	652	36	510	603	490	34	539	258
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.94	0.94	0.94	0.96	0.96	0.96
Adj. Flow (vph)	281	623	509	494	686	38	543	641	521	35	561	269
Lane Group Flow (vph)	281	623	509	494	686	38	543	641	521	35	561	269
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phases	7	4	5	3	8	1	5	2	3	1	6	7
Minimum Initial (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
Minimum Split (s)	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0	9.0	21.0	9.0
Total Split (s)	21.0	35.0	33.0	29.0	43.0	10.0	33.0	56.0	29.0	10.0	33.0	21.0
Total Split (%)	16.2%	26.9%	25.4%	22.3%	33.1%	7.7%	25.4%	43.1%	22.3%	7.7%	25.4%	16.2%
Maximum Green (s)	16.0	30.0	28.0	24.0	38.0	5.0	28.0	51.0	24.0	5.0	28.0	16.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-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)	15.7	27.7	58.3	23.6	35.6	46.6	26.5	57.6	85.4	7.0	36.2	55.8
Actuated g/C Ratio	0.12	0.21	0.45	0.18	0.27	0.36	0.20	0.44	0.66	0.05	0.28	0.43
v/c Ratio	0.68	0.83	0.70	0.79	0.71	0.06	0.77	0.41	0.49	0.37	0.57	0.38
Control Delay	63.3	58.6	31.6	60.9	46.6	8.1	56.9	26.9	11.8	70.9	44.7	23.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.3	58.6	31.6	60.9	46.6	8.1	56.9	26.9	11.8	70.9	44.7	23.9
LOS	E	E	C	E	D	A	E	C	B	E	D	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		49.8			51.2			31.9			39.3	
Approach LOS		D			D			C			D	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 42.5 Intersection LOS: D
Intersection Capacity Utilization 71.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 8: Route 20 (Southwestern Blvd) & Route 75(Camp Road)



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Accident Analysis

INTERSECTION ACCIDENT RATE CALCULATIONS

$$\text{Rate per MEV} = \frac{\text{\# of Accidents} \times 1{,}000{,}000}{\text{Total No. of Entering Vehicles}} =$$

$$\text{Rate} = \frac{\text{\# of Accidents} \times 1{,}000{,}000}{\text{Veh./Day} \times \text{Duration of Study}} =$$

Accidents per million entering vehicles (Acc / MEV)

* Acccident data is from April 01, 2004 to April 01, 2007

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1 Route 75/ Highland Avenue

ADT = Peak hour entering volume / k factor
ADT = 1690 VPH / 0.10 = 16900 VPD

$$\text{Rate} = \frac{2 \text{ Acc.} \times 1{,}000{,}000}{16900 \text{ VPD} \times 365 \text{ Days} \times 3.00 \text{ Yrs.*}} = 0.11 \text{ Acc / MEV}$$

2 Route 75/ Legion Drive

ADT = Peak hour entering volume / k factor
ADT = 2355 VPH / 0.10 = 23550 VPD

$$\text{Rate} = \frac{12 \text{ Acc.} \times 1{,}000{,}000}{23550 \text{ VPD} \times 365 \text{ Days} \times 3.00 \text{ Yrs.*}} = 0.47 \text{ Acc / MEV}$$

3 Route 75/ Scranton Road

ADT = Peak hour entering volume / k factor
ADT = 2023 VPH / 0.10 = 20230 VPD

$$\text{Rate} = \frac{2 \text{ Acc.} \times 1{,}000{,}000}{20230 \text{ VPD} \times 365 \text{ Days} \times 3.00 \text{ Yrs.*}} = 0.09 \text{ Acc / MEV}$$

4 Route 75/ Sunset Drive

ADT = Peak hour entering volume / k factor
ADT = 2185 VPH / 0.10 = 21850 VPD

$$\text{Rate} = \frac{5 \text{ Acc.} \times 1{,}000{,}000}{21850 \text{ VPD} \times 365 \text{ Days} \times 3.00 \text{ Yrs.*}} = 0.21 \text{ Acc / MEV}$$

5 Route 75/ Commerce Place

ADT = Peak hour entering volume / k factor
ADT = 2093 VPH / 0.10 = 20930 VPD

$$\text{Rate} = \frac{3 \text{ Acc.} \times 1{,}000{,}000}{20930 \text{ VPD} \times 365 \text{ Days} \times 3.00 \text{ Yrs.*}} = 0.13 \text{ Acc / MEV}$$

6 **Route 75/ Thruway Ramps**

ADT = Peak hour entering volume / k factor
ADT = 2573 VPH / 0.10 = 25730 VPD

$$\text{Rate} = \frac{4 \text{ Acc.} \times 1{,}000{,}000}{25730 \text{ VPD} \times 365 \text{ Days} \times 3.00 \text{ Yrs.}^*} = 0.14 \text{ Acc / MEV}$$

ROADWAY SEGMENT (MID-BLOCK) ACCIDENT RATE CALCULATIONS

$$\text{Rate per MVM} = \frac{\text{\# of Accidents} \times 1{,}000{,}000}{\text{Total Vehicle Miles of Travel}}$$

$$\text{Rate} = \frac{\text{\# of Accidents} \times 1{,}000{,}000}{\text{Sectional Length} \times \text{AADT} \times \text{Duration of Study}}$$

Accidents per million vehicle miles (Acc / MVM)

1. **Route 75 (Between Highland Avenue and Legion Drive)**

Section length = 0.590 mi
2 - way ADT = 19300

$$\text{Rate} = \frac{28 \text{ Acc.} \times 1{,}000{,}000}{0.590 \text{ mi} \times 19300 \text{ VPD} \times 365 \text{ Days} \times 3.00 \text{ Yrs.}} = \mathbf{2.25 \text{ Acc / MVM}}$$

2. **Route 75 (Between Legion Drive and Scranton Road)**

Section length = 0.284 mi
2 - way ADT = 26800

$$\text{Rate} = \frac{8 \text{ Acc.} \times 1{,}000{,}000}{0.440 \text{ mi} \times 26800 \text{ VPD} \times 365 \text{ Days} \times 3.00 \text{ Yrs.}} = \mathbf{0.62 \text{ Acc / MVM}}$$

3 **Route 75 (Between Scranton Road and Sunset Drive)**

Section length = 0.360 mi
2 - way ADT = 26800

$$\text{Rate} = \frac{19 \text{ Acc.} \times 1{,}000{,}000}{0.360 \text{ mi} \times 26800 \text{ VPD} \times 365 \text{ Days} \times 3.00 \text{ Yrs.}} = \mathbf{1.80 \text{ Acc / MVM}}$$

4 ***Route 75* (Between Sunset Drive and Commerce Place)**

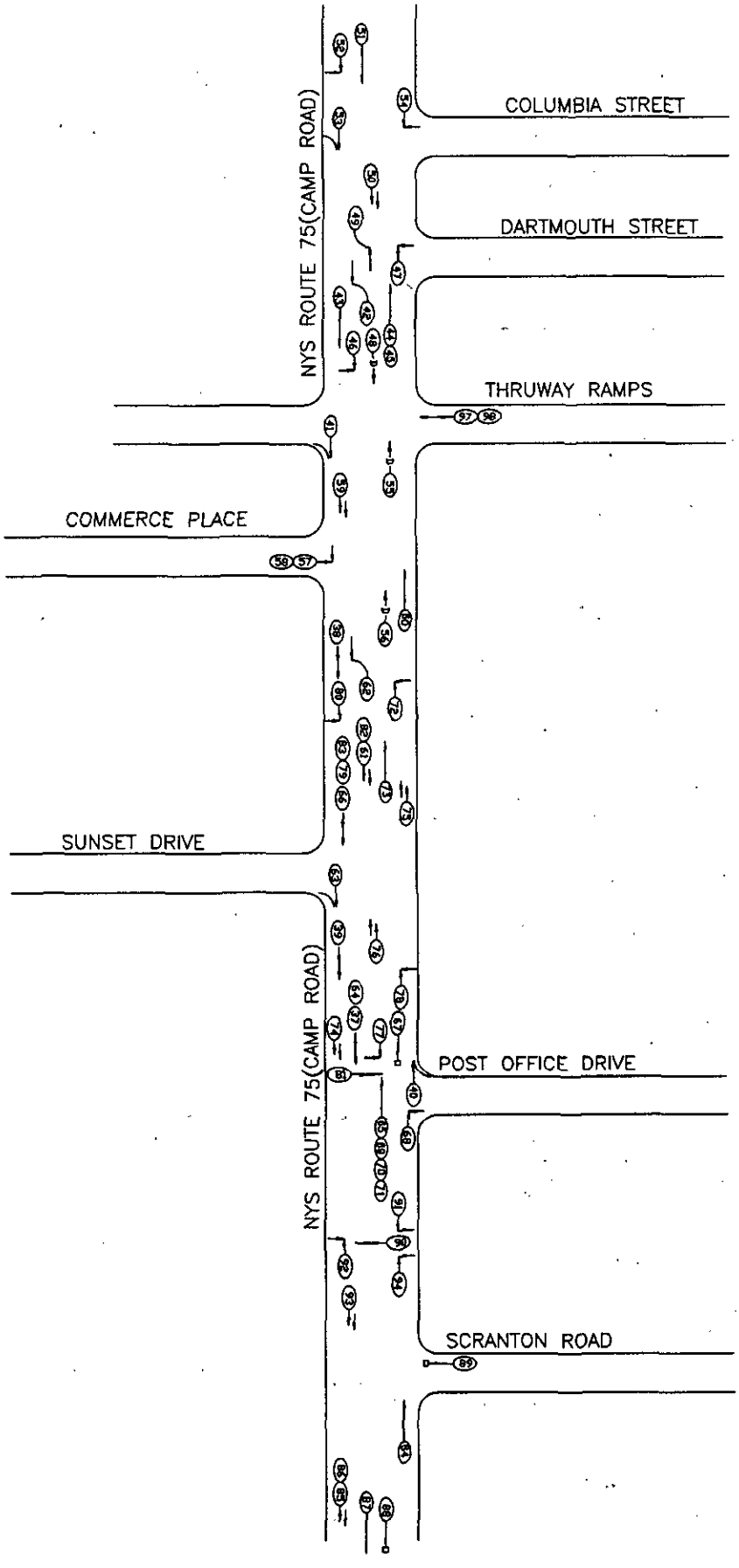
Section length = 0.300 mi
2 - way ADT = 26800

$$\text{Rate} = \frac{8 \text{ Acc.} \times 1{,}000{,}000}{0.300 \text{ mi} \times 26800 \text{ VPD} \times 365 \text{ Days} \times 3.00 \text{ Yrs.}} = \mathbf{0.91 \text{ Acc / MVM}}$$

5 **Route 75 (Between Thruway Ramps and Columbia Street)**

Section length = 0.370 mi
2 - way ADT = 25848

$$\text{Rate} = \frac{12 \text{ Acc.} \times 1{,}000{,}000}{0.370 \text{ mi} \times 25848 \text{ VPD} \times 365 \text{ Days} \times 3.00 \text{ Yrs.}} = \mathbf{1.15 \text{ Acc / MVM}}$$



ACCIDENT DETAIL

TYPE OF ACCIDENT

KEY NUMBER

SYMBOLS

MOVING VEHICLE
BACKING VEHICLE
FIXED OBJECT
RIGHT ANGLE
REAR END
RIGHT TURN
HEAD ON
PEDESTRIAN
BICYCLE
MOTORCYCLE
DEER HIT
OVERTAKING
LEFT TURN
SIDESWIPE
TURKEY HIT

N

NOT TO SCALE

FIGURE 1 OF 2

ACCIDENT DIAGRAM

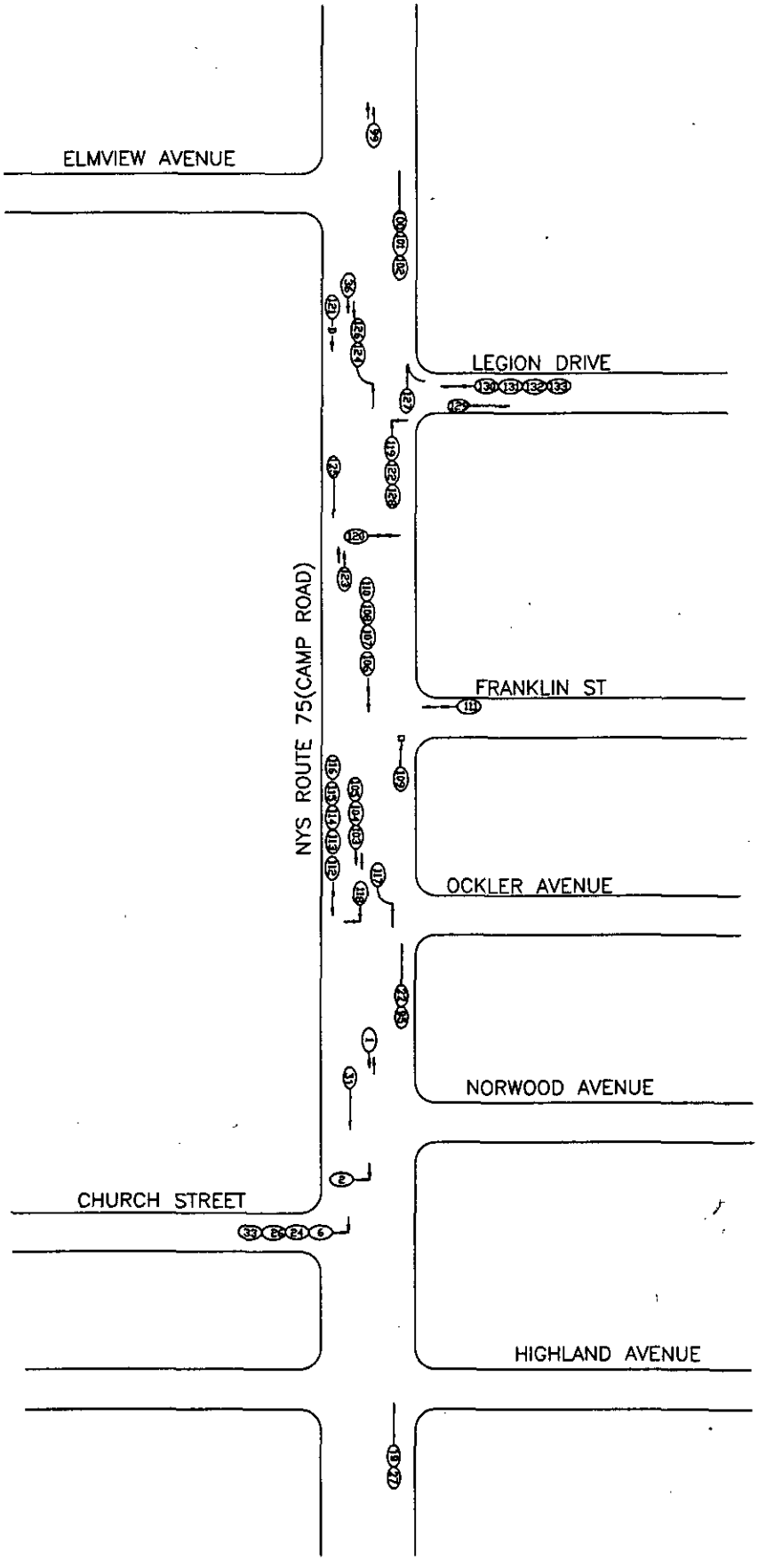
PROPOSED HAMBURG CROSSINGS

TOWN OF HAMBURG, NEW YORK

SRF ASSOCIATES

WWW.SRFA.NET

Traffic Engineering & Planning Consultants



ACCIDENT DETAIL

TYPE OF ACCIDENT

KEY NUMBER

SYMBOLS

MOVING VEHICLE
BACKING VEHICLE
FIXED OBJECT
RIGHT ANGLE
REAR END
RIGHT TURN
HEAD ON
PEDESTRIAN
BICYCLE
MOTORCYCLE
DEER HIT
OVERTAKING
LEFT TURN
SIDESWIPE
T- TURKEY HIT

N

NOT TO SCALE

FIGURE 2 OF 2

ACCIDENT DIAGRAM

PROPOSED HAMBURG CROSSINGS

TOWN OF HAMBURG, NEW YORK

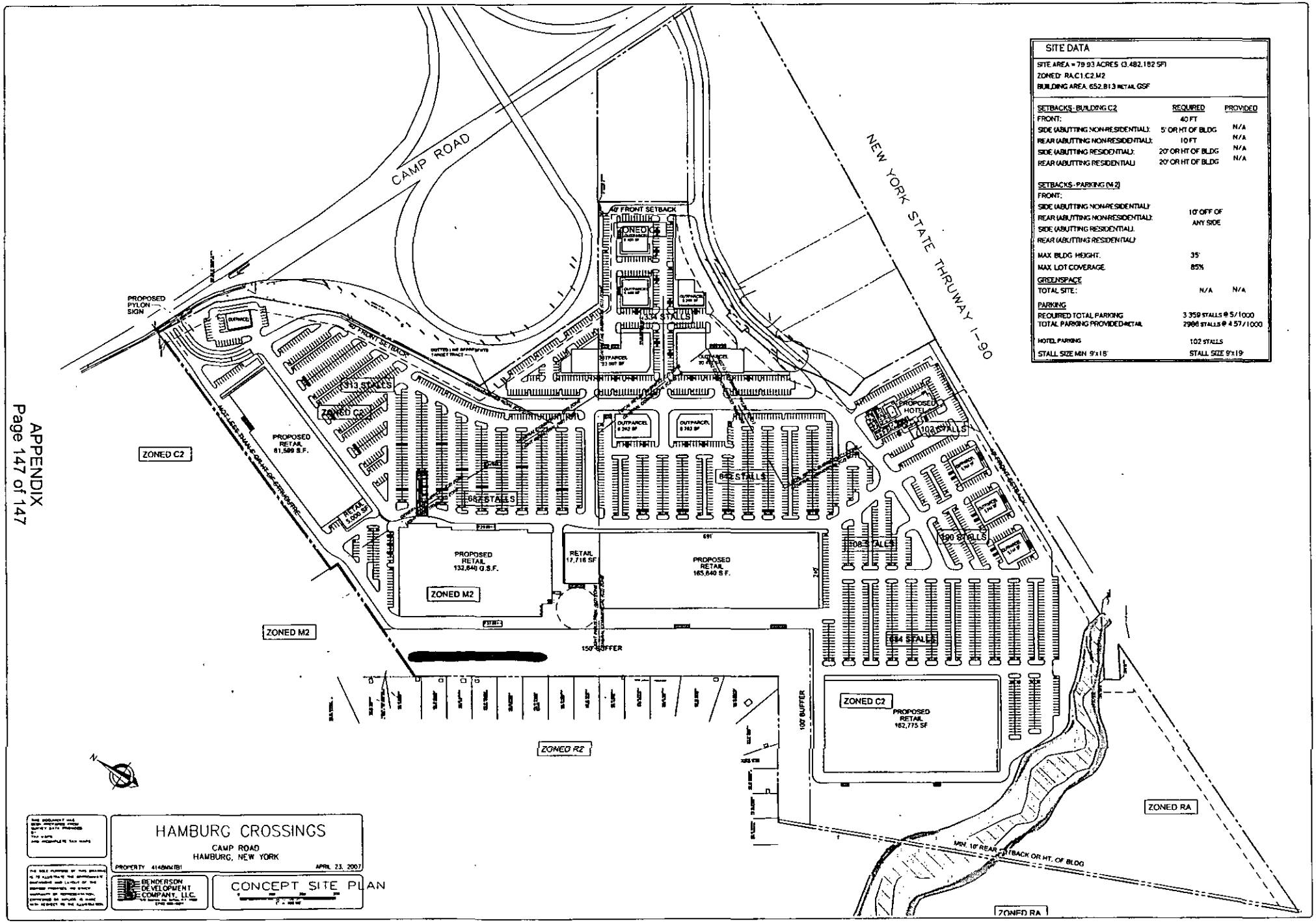
SRF ASSOCIATES

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Traffic Engineering & Planning Consultants

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Site Plan



SITE DATA

SITE AREA = 79.93 ACRES (3,482,182 SF)
ZONED: RA,C1,C2,M2
BUILDING AREA: 652,813 RETAIL GSF

SETBACKS - BUILDING C2	REQUIRED	PROVIDED
FRONT:	40 FT	
SIDE (ABUTTING NON-RESIDENTIAL):	5' OR HT OF BLDG	N/A
REAR (ABUTTING NON-RESIDENTIAL):	10 FT	N/A
SIDE (ABUTTING RESIDENTIAL):	20' OR HT OF BLDG	N/A
REAR (ABUTTING RESIDENTIAL)	20' OR HT OF BLDG	N/A

SETBACKS - PARKING (M-2)	
FRONT:	
SIDE (ABUTTING NON-RESIDENTIAL):	10' OFF OF
REAR (ABUTTING NON-RESIDENTIAL):	ANY SIDE
SIDE (ABUTTING RESIDENTIAL):	
REAR (ABUTTING RESIDENTIAL)	
MAX BLDG HEIGHT:	35'
MAX LOT COVERAGE:	85%

GREENSPACE		
TOTAL SITE:	N/A	N/A

PARKING	
REQUIRED TOTAL PARKING	3,359 STALLS @ 5/1000
TOTAL PARKING PROVIDED-RETAIL	2986 STALLS @ 4.57/1000
HOTEL PARKING	102 STALLS
STALL SIZE MIN. 9'x18'	STALL SIZE 9'x19'